Estudio para análisis de falla EAF 429/2019

"Falla en línea 110 kV Los Maquis - Aconcagua - Esperanza"

Fecha de Emisión: 07-01-2020

1. Descripción pormenorizada de la perturbación

a. Fecha y Hora de la falla

Fecha	14/12/2019
Hora	12:55

b. Estimación de consumos desconectados

Consumos desconectados (MW)	44.00

c. Origen de la falla

Se produjo la desconexión forzada de la línea 110 kV Los Maquis - Aconcagua - Esperanza por operación de protecciones, debido a cortocircuito ocasionado por corte de conductor por incendio bajo el tramo de línea 110 kV Tap San Felipe - San Felipe C1 y C2.

c.1 Fenómeno Físico:

INC1: Incendio bajo una línea o en proximidades de instalaciones (natural o provocado, ej. quema de pastizal)

La instalación no ha sido afectada por este fenómeno físico en el período de un año calendario

c.2 Elemento donde se produjo la falla

TX2: Conductores

c.3 Fenómeno eléctrico

DI21N: Distancia residual

c.4 Modo (comportamiento de interruptores principales)

13: Opera según lo esperado

d. Comuna donde se presenta la falla

5701: San Felipe

2. Descripción del equipamiento afectado

a. Sistema de Generación

Central	Unidad	Pérdida de Generación (MW)	H. Desconexión	H. Normalización

Total: 0.00 MW

b. Sistema de Transmisión

Elemento Afectado	Tramo	Hora Desc.	Hora Norm.
Los Maquis – Aconcagua – Esperanza 110 kV	Los Maquis – Tap Los Maquis 110 kV C1	12:55	16:44
Los Maquis – Aconcagua – Esperanza 110 kV	Tap Los Maquis – Aconcagua 110 kV C1	12:55	16:44
Los Maquis – Aconcagua – Esperanza 110 kV	Tap Los Maquis – Tap San Rafael 110 kV	12:55	16:44
Los Maquis – Aconcagua – Esperanza 110 kV	Tap San Rafael – Tap San Felipe 110 kV C1	12:55	16:44
Los Maquis – Aconcagua – Esperanza 110 kV	Tap San Felipe – Tap Chagres 110 kV	12:55	16:44
Los Maquis – Aconcagua – Esperanza 110 kV	Tap Chagres – Esperanza 110 kV	12:55	16:44

- Las horas indicadas corresponden a lo informado por la empresa Colbun S.A. y la información disponible en el sistema SCADA del Coordinador Eléctrico Nacional.

c. Consumos

Sub-Estación	Pérdida de Consumo (MW)	% consumo pre-falla	H. Desc.	H. Norm.
S/E San Felipe	0.11 (*)	0.000	12:55	13:34
S/E San Felipe	0.20 (*)	0.000	12:55	16:56
S/E San Felipe	0.33 (*)	0.000	12:55	17:11
S/E San Felipe	3.62 (*)	0.040	12:55	17:49
S/E San Felipe	1.50 (*)	0.020	12:55	17:51
S/E San Felipe	1.75 (*)	0.020	12:55	18:15
S/E San Felipe	10.00 (*)	0.110	12:55	19:30
S/E San Felipe	2.49 (*)	0.030	12:55	19:42
S/E San Rafael (Chilquinta)	8.42 (*)	0.090	12:55	16:55
S/E San Rafael (Chilquinta)	7.86 (*)	0.090	12:55	16:56
S/E San Rafael (Chilquinta)	7.00 (*)	0.080	12:55	16:57
S/E San Rafael (Chilquinta)	0.72 (*)	0.010	12:55	17:11

Total: 44.00 MW **0.490 %**

- Las horas y el monto total de los consumos indicados corresponde a lo informado por la empresa Chilquinta S.A.

(*) El detalle de los montos indicados se estimó a partir de la cantidad de clientes asociados a cada alimentador, según lo informado por la empresa Chilquinta S.A.

3. Estimación de la energía no suministrada

Sub-Estación	Empresa	Tipo de Cliente	Pérdida de Consumo (MW)	Tiempo Desc. (h)	ENS (MWh)
S/E San Felipe	Chilquinta	Regulado	0.11 (*)	0.65	0.1
S/E San Felipe	Chilquinta	Regulado	0.20 (*)	4.02	0.8
S/E San Felipe	Chilquinta	Regulado	0.33 (*)	4.27	1.4
S/E San Felipe	Chilquinta	Regulado	3.62 (*)	4.90	17.7
S/E San Felipe	Chilquinta	Regulado	1.50 (*)	4.93	7.4
S/E San Felipe	Chilquinta	Regulado	1.75 (*)	5.33	9.3
S/E San Felipe	Chilquinta	Regulado	10.00 (*)	6.58	65.8
S/E San Felipe	Chilquinta	Regulado	2.49 (*)	6.78	16.9
S/E San Rafael (Chilquinta)	Chilquinta	Regulado	8.42 (*)	4.00	33.7
S/E San Rafael (Chilquinta)	Chilquinta	Regulado	7.86 (*)	4.02	31.6
S/E San Rafael (Chilquinta)	Chilquinta	Regulado	7.00 (*)	4.03	28.2
S/E San Rafael (Chilquinta)	Chilquinta	Regulado	0.72 (*)	4.27	3.1

Clientes Regulados : 216.0 MWh

Clientes Libres : 0.0 MWh

Total : 216.0 MWh

- El monto total de los consumos indicados corresponde a lo informado por la empresa Chilquinta S.A.

(*) El detalle de los montos indicados se estimó a partir de la cantidad de clientes asociados a cada alimentador, según lo informado por la empresa Chilquinta S.A.

4. Descripción de las configuraciones en los momentos previo y posterior a la falla

Demanda del sistema previo a la falla: 9025.0 MW

Regulación de Frecuencia

Control distribuido de frecuencia en el Sistema Eléctrico Nacional previo a la falla, mediante las centrales Angostura (U2), Ralco (U2), Pehuenche (U2), El Toro (U1, U2, U3 y U4), Pangue (U1), Angamos (ANG1 y ANG2) y Cochrane (CCH1 y CCH2).

Operación Programada

En anexo Nº1 se adjunta el detalle de la generación programada para el día 14 de diciembre de 2019.

Operación Real

En anexo Nº2 se adjunta el detalle de la generación real del día 14 de diciembre de 2019.

Movimiento de centrales e informe diario del CDC

En anexo Nº3 se presenta el detalle del movimiento de centrales e informe diario del CDC para el día 14 de diciembre de 2019.

Mantenimientos

En anexo Nº4 se presenta el detalle de los mantenimientos programados y forzados para el día 14 de diciembre de 2019.

Estado y configuración previo a la falla

En los momentos previos a la desconexión forzada se tenía lo siguiente:

- A las 12:52 horas se produjo la desconexión forzada de la línea 110 kV Totoralillo - Chagres, a raíz de la misma causa que la falla en cuestión (incendio bajo el tramo Tap San Felipe - San Felipe, que deriva en corte de conductor).
- A las 12:54 horas se recuperan los consumos afectados de S/E San Felipe, a través del cierre del interruptor acoplador de barras de 12 kV. Lo anterior implica que todos los consumos asociados a la S/E San Felipe quedan alimentados desde el transformador 110/12 kV N°1 y, por ende, desde la línea 110 kV Los Maquis - Aconcagua - Esperanza.
- La línea 110 kV Los Maquis - Aconcagua - Esperanza se encontraba abierta en el extremo de S/E Esperanza (operación normal).

Otros antecedentes relevantes

De acuerdo con lo informado por la empresa Chilquinta S.A.:

"El Área de Mantenimiento de Transmisión se dirige a San Felipe para iniciar el patrullaje pedestre de la línea, encontrándose que el fenómeno físico causante de la falla eléctrica y que provocó la operación automática de los interruptores de la Línea 110 kV Aconcagua-Esperanza Circuitos N°1 y N°2 de propiedad de Colbún, fue ocasionada por intervención no autorizada del propietario de un predio particular o terceros relacionados directa o indirectamente al mismo, quienes realizaron una quema de desechos combustibles bajo la Línea 110 kV Arranque San Felipe, de propiedad de Chilquinta Energía S.A. La quema se salió de control, transformándose en un incendio de proporciones, afectando entre las estructuras N°7 y N°8 a los conductores energizados de las fases media e inferior de los Circuitos N°1 y N°2, los que por acción del exceso calor se dilatan y cortan. Se hace presente que Chilquinta está trabajando en las acciones legales en contra de los responsables de estos hechos.

Producto del calor también resulta afectada la Línea de 44 kV Las Vegas-Los Andes, cuyo trazado en el sector es paralelo a la Línea 110 kV Arranque San Felipe. El conductor de la fase inferior del Circuito N°1 es el más dañado, ya que presenta una evidente dilatación. Se realiza evaluación de la condición de la línea y se determina la factibilidad de la toma de carga por el Circuito N°2.

La primera medida adoptada en terreno fue aislar el Circuito N°1 de la Línea 110 kV Arranque San Felipe, de manera de dejar disponible el Circuito N°1 de la Línea 110 kV Aconcagua - Esperanza para la recuperación de los consumos. Para aislar se procedió con la apertura de puentes en la estructura auxiliar, ubicada a un costado de la estructura N°1.

Luego en el tramo 7-8, se iniciaron los trabajos de reemplazo del conductor Butte dañado, partiendo por el Circuito N°2 para seguir con el Circuito N°1. Está etapa finaliza con la energización y recuperación de los consumos por el Circuito N°2.

La tercera etapa fue el cierre de puentes por el Circuito N°1, con lo cual quedaron normalizados ambos circuitos de la Línea 110 kV Arranque San Felipe.

En cuanto a la Línea de 44 kV Las Vegas-Los Andes, el mismo día en la estructura N°199 se realizó la apertura de puentes por el Circuito N°1, dejando preparado para los trabajos de reemplazo de conductor que se realizaron el domingo 15 de diciembre.

Desde el domingo 15 de diciembre y hasta la fecha se ha realizado un trabajo, en conjunto con la Ilustre Municipalidad de San Felipe, que consiste en el retiro de desechos que el propietario del predio a depositado en las inmediaciones de la línea afectada."

A raíz del incendio y por daños provocados a la infraestructura de la línea 44 kV Las Vegas - Los Andes (FFCC), específicamente el tramo 44 kV Panquehue - Los Andes (FFCC), fue necesaria la desconexión manual de este tramo de línea, afectando los consumos de las SS/EE Rio Blanco y Juncal, correspondientes a 0.2 [MW] y 0.3 [MW] respectivamente.

Estas desconexiones se realizaron a través de curso forzoso bajo las solicitudes de desconexión N°2019092025 y N°2019092026 del sistema Neomante del Coordinador Eléctrico Nacional:

Número	Coordinado	Tipo Programación	Tipo/Trabajo/Objetivo	Fecha Inicio	Fecha Fin	Estado
2019092025	CHILQUINTA	Curso Forzoso	**Línea** > LAS VEGAS - FFCC LOS ANDES 44KV - > **Desconexión** / Origen Externo / Curso Forzoso > No tiene consumo afectado > **Trabajos a Realizar:** a solicitud de bomberos se desconecta la LT 44kV Las Vegas - FFCC Andes circuito 1 y 2. Ver menos > **Desc. Nivel Riesgo:** a solicitud de bomberos se desconecta la LT 44kV Las Vegas - FFCC Andes circuito 1 y 2. Ver menos > **Comentarios Adicionales:** Se abren puentes en estructura 199 de la LT 44kV Las Vegas - FFCC Andes circuito 1 por lo que al momento de la energización se deja disponible entre E199 y S/E FFCC Andes Ver menos	14-12-2019 13:28 **Fecha Efectiva Inicio** 14-12-2019 13:28	14-12-2019 23:39 **Fecha Efectiva Fin** 14-12-2019 23:39	Ejecución Exitosa

Número	Coordinado	Tipo Programación	Tipo/Trabajo/Objetivo	Fecha Inicio	Fecha Fin	Estado
2019092026	CHILQUINTA	Curso Forzoso	**Línea** > LAS VEGAS - FFCC LOS ANDES 44KV - > **Desconexión** / Origen Externo / Curso Forzoso > **Consumo Regulado** > **Trabajos a Realizar:** a solicitud de bomberos se desconecta la LT 44kV Las Vegas - FFCC Andes circuito 1 y 2. Ver menos > **Desc. Nivel Riesgo:** a solicitud de bomberos se desconecta la LT 44kV Las Vegas - FFCC Andes circuito 1 y 2. Ver menos > **Comentarios Adicionales:** .	14-12-2019 13:28 **Fecha Efectiva Inicio** 14-12-2019 13:28	14-12-2019 17:55 **Fecha Efectiva Fin** 14-12-2019 17:55	Ejecución Exitosa

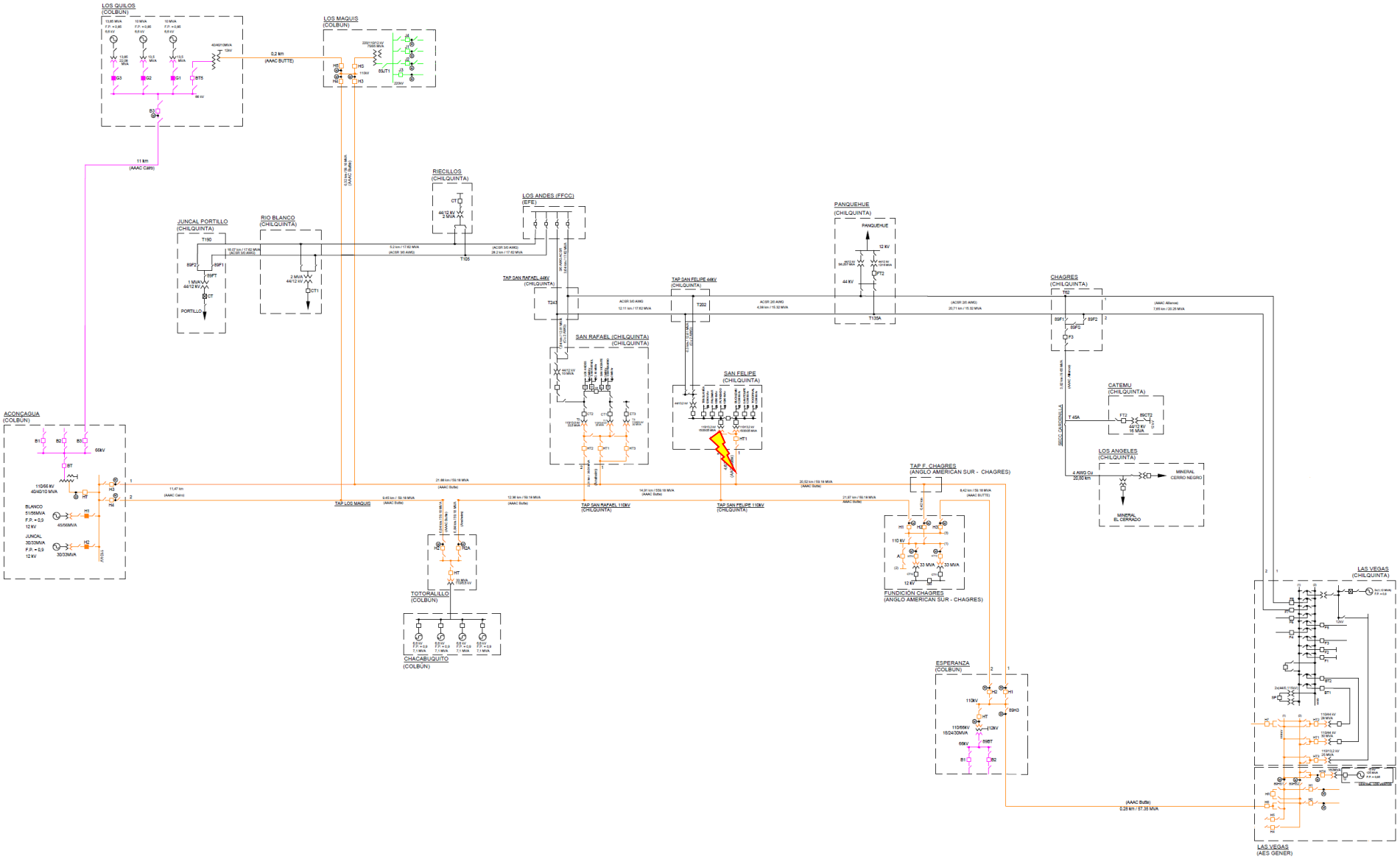
Acciones correctivas a corto plazo

No se indican

Acciones correctivas a largo plazo

No se indican

Diagrama simplificado de las instalaciones previo a la falla



5. Cronología de eventos y la descripción de las causas de los eventos

Hora	Evento
12:55	Apertura automática de interruptor 52H3 de S/E Aconcagua, asociado a la línea 110 kV Los Maquis - Aconcagua - Esperanza, por operación de protecciones.
12:55	Apertura automática de interruptor 52H3 de S/E Los Maquis, asociado a la línea 110 kV Los Maquis - Aconcagua - Esperanza, por operación de protecciones.

- Las horas indicadas corresponden a lo informado por la empresa Colbún S.A.

6. Normalización del servicio

Fecha	Hora	Acción
14/12/2019	13:26	Por solicitud de bomberos para extinguir el fuego, la empresa Chilquinta realiza la desconexión del tramo de línea 2x44 kV Panquehue - Los Andes (FFCC) (ambos circuitos), afectando los consumos asociados a las S/E Rio Blanco y Juncal.
14/12/2019	13:34	La empresa Chilquinta recupera los consumos asociados al alimentador Palomar de S/E San Felipe, por redes MT.
14/12/2019	14:16	La empresa Chilquinta solicita a la empresa Colbún aterrizar las líneas 110 kV Totoralillo - Chagres y Los Maquis - Aconcagua - Esperanza, para realizar apertura de puentes en el tramo de línea 2x110 kV Tap San Felipe - San Felipe (ambos circuitos).
14/12/2019	14:25	La empresa Colbún aterriza línea 110 kV Los Maquis - Aconcagua - Esperanza.
14/12/2019	15:28	La empresa Colbún aterriza la línea Totoralillo - Chagres.
14/12/2019	15:57	La empresa Chilquinta comienza con los trabajos de apertura de puentes en el tramo de línea 2x110 kV Tap San Felipe - San Felipe.
14/12/2019	16:22	La empresa Chilquinta finaliza los trabajos de apertura de puentes en el tramo de línea 2x110 kV Tap San Felipe - San Felipe.
14/12/2019	16:44	La empresa Colbún realiza el cierre de los interruptores 52H3 de S/E Los Maquis y 52H3 de S/E Aconcagua, energizando la línea 110 kV Los Maquis - Aconcagua - Esperanza y la S/E San Rafael.
14/12/2019	16:55	La empresa Chilquinta recupera los consumos asociados a los alimentadores San Esteban y Centenario de S/E San Rafael.
14/12/2019	16:56	La empresa Chilquinta recupera los consumos asociados a los alimentadores San Vicente, Cormecánica, Los Andes y una parte de los consumos del alimentador San Rafael, todos estos de S/E San Rafael.
14/12/2019	16:56	La empresa Chilquinta recupera una parte de los consumos asociados al alimentador Bucalemu de S/E San Felipe, por redes MT.
14/12/2019	16:57	La empresa Chilquinta recupera los consumos asociados a los alimentadores Chacabuco y Las Juntas de S/E San Rafael.
14/12/2019	17:11	Se recuperan los consumos faltantes asociados al alimentador Bucalemu de S/E San Felipe y al alimentador San Rafael de S/E San Rafael, a través de redes MT. Se normaliza la totalidad de los consumos afectados de S/E San Rafael.
14/12/2019	17:35	Circuito N°2 del tramo de línea 2x44 kV Panquehue - Los Andes (FFCC) se encuentra despejado y en condiciones de ser energizado.
14/12/2019	17:40	La empresa Chilquinta energiza el circuito N°2 del tramo de línea 2x44 kV Panquehue - Los Andes (FFCC).
14/12/2019	17:47	La empresa Chilquinta energiza el transformador 44/12 kV N°3 de S/E San Felipe, para realizar normalización de consumos.
14/12/2019	17:49	La empresa Chilquinta recupera los consumos asociados al alimentador Almendral y una parte de los consumos asociados al alimentador Tocornal, ambos de S/E San Felipe.

14/12/2019	17:51	La empresa Chilquinta recupera una parte de los consumos asociados al alimentador San Felipe de S/E San Felipe.
14/12/2019	17:55	La empresa Chilquinta realiza el cierre del interruptor 44 kV del extremo S/E Los Andes (FFCC), asociado al circuito N°2 de la línea 2x44 kV Las Vegas - Los Andes (FFCC), normalizando los consumos de las SS/EE Rio Blanco y Juncal.
14/12/2019	18:15	La empresa Chilquinta recupera otra parte de los consumos asociados al alimentador San Felipe de S/E San Felipe.
14/12/2019	19:00	La empresa Chilquinta S.A. finaliza los trabajos de reparación del conductor en el circuito N°2 del tramo de línea 2x110 kV Tap San Felipe - San Felipe, cerrando puentes.
14/12/2019	19:17	La empresa Colbún realiza el cierre del interruptor 52H2A de S/E Totoralillo, energizando la línea 110 kV Totoralillo - Chagres en vacío.
14/12/2019	19:27	La empresa Chilquinta realiza el cierre del interruptor 52H2 de S/E San Felipe, asociado a la línea 110 kV Totoralillo - Chagres, energizando dicha subestación.
14/12/2019	19:29	La empresa Chilquinta realiza la desconexión del transformador 44/12 kV N°3 y el cierre del interruptor de 12 kV asociado al transformador 110/12 kV N°1 de S/E San Felipe (microcorte).
14/12/2019	19:30	La empresa Chilquinta recupera los consumos asociados a los alimentadores Palomar, Putaendo, Traslaviña y la última parte del consumo asociado al alimentador San Felipe, todos de S/E San Felipe.
14/12/2019	19:39	La empresa Chilquinta S.A. finaliza con los trabajos de reparación de conductor en el circuito N°1 del tramo de línea 2x110 kV Tap San Felipe - San Felipe.
14/12/2019	19:42	La empresa Chilquinta recupera la última parte de los consumos asociados al alimentador Tocornal de S/E San Felipe. Con esto, se recupera la totalidad de los consumos afectados por la falla.
14/12/2019	20:08	La empresa Chilquinta realiza cambio de alimentación de la S/E San Rafael, quedando alimentada desde la línea 110 kV Totoralillo - Chagres.
14/12/2019	20:42	La empresa Colbún desenergiza la línea 110 kV Los Maquis - Aconcagua - Esperanza, para normalizar topología.
14/12/2019	21:05	La empresa Chilquinta finaliza el cierre de puentes en el circuito N°2 del tramo de línea 2x110 kV Tap San Felipe - San Felipe.
14/12/2019	21:32	La empresa Colbún energiza la línea 110 kV Los Maquis - Aconcagua - Esperanza, normalizando topología existente previo a la falla (*).

- Las fechas y horas indicadas corresponden a lo informado por las empresas Chilquinta S.A., Colbún S.A. y la información disponible en el sistema SCADA del Coordinador Eléctrico Nacional.

(*) Dado que la S/E San Felipe puede quedar alimentada tanto desde la línea 110 kV Totoralillo – Chagres, como de la línea 110 kV Los Maquis – Aconcagua – Esperanza, se considera que la topología volvió a la normalidad.

7. Análisis de las causas de la falla y de la actuación de los dispositivos de protección y control

Antecedentes de la falla

Se produjo la desconexión forzada de la línea 110 kV Los Maquis - Aconcagua - Esperanza por operación de protecciones debido a cortocircuito ocasionado por corte de conductor que se produjo por incendio bajo el tramo de línea 110 kV Tap San Felipe - San Felipe C1 y C2.

A raíz de esta falla se incurrió en la pérdida de 44 [MW] asociados a las SS/EE San Rafael y San Felipe.

Ajustes de los sistemas de protecciones

Protecciones asociadas al paño H3 de S/E Los Maquis

El paño H3 de S/E Los Maquis cuenta con un sistema de protecciones correspondiente a un relé GE D60, implementado con elementos de distancia de fase y residual (21/21N), además de un elemento direccional de sobrecorriente residual (67N). También cuenta con un esquema de teleprotección de sobre alcance permisivo hibrido (Hybrid POTT), para el caso en que la línea opere cerrada en sus 3 extremos.

El detalle de los ajustes se puede ver en el Anexo N°6.

Protecciones asociadas al paño H3 de S/E Aconcagua

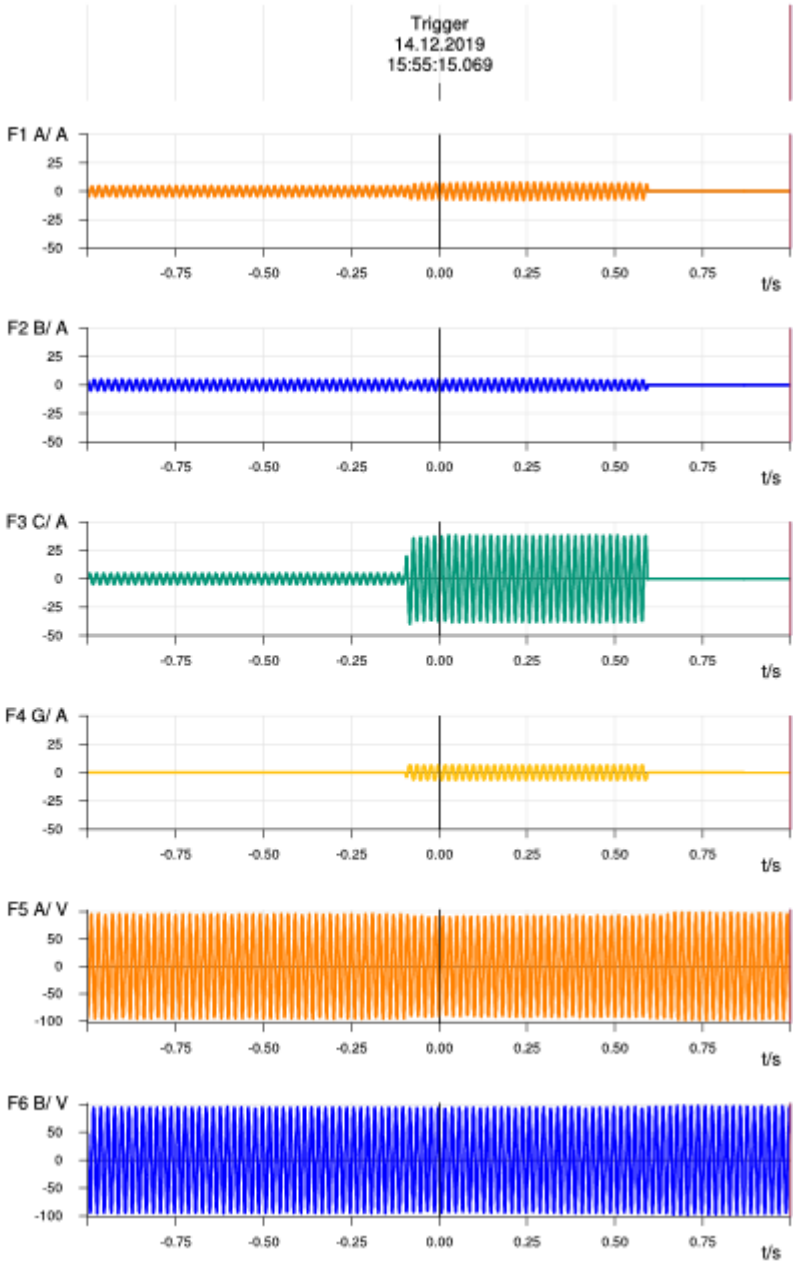
El paño H3 de S/E Aconcagua cuenta con un sistema de protecciones correspondiente a un relé GE D60, implementado con elementos de distancia de fase y residual (21/21N), además de un elemento direccional de sobrecorriente residual (67N). También cuenta con un esquema de teleprotección de sobre alcance permisivo hibrido (Hybrid POTT), para el caso en que la línea opere cerrada en sus 3 extremos.

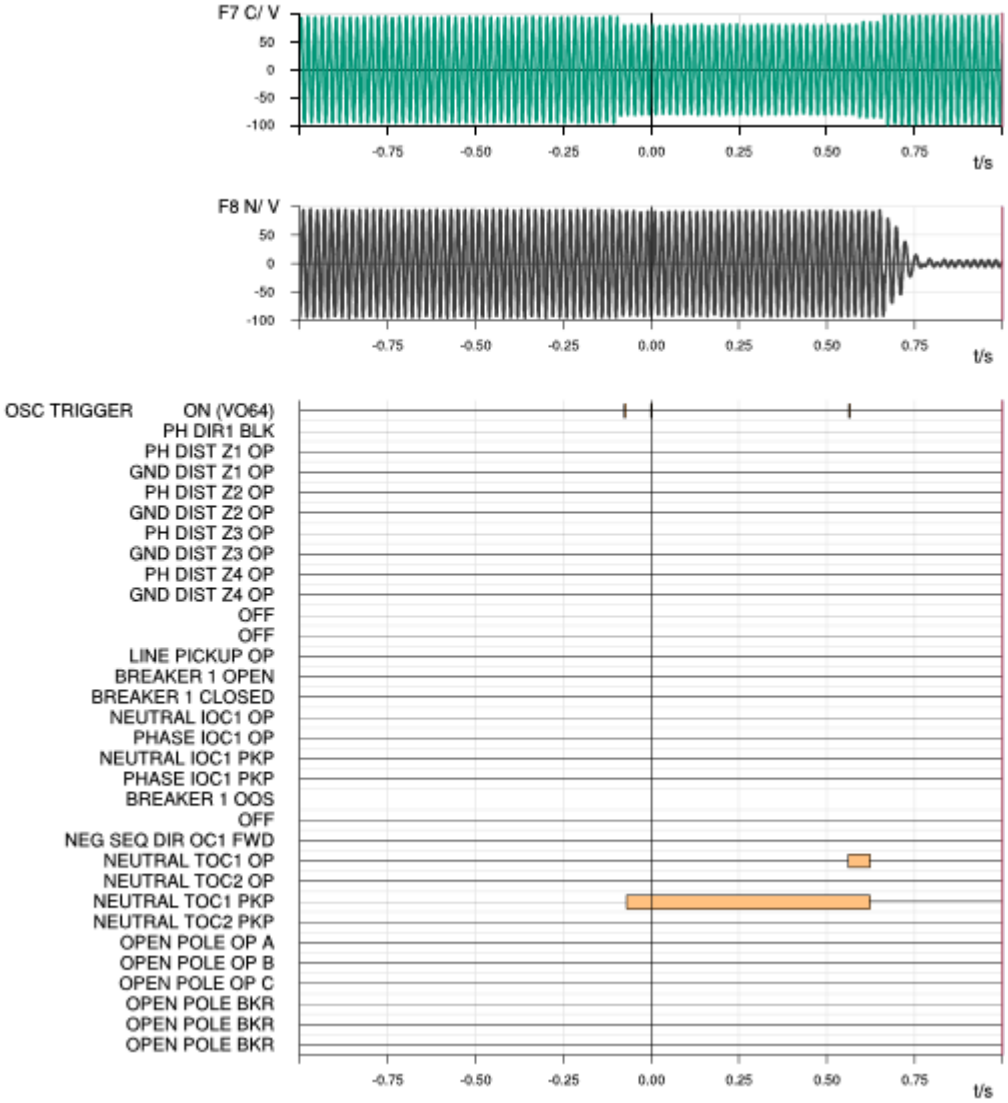
El detalle de los ajustes se puede ver en el Anexo N°6.

Análisis de la operación de los sistemas de protecciones

Protecciones asociadas al paño H3 de S/E Los Maquis

Registro oscilográfico y de eventos





Del registro oscilográfico se puede observar un gran aumento en la magnitud de corriente por la fase C, una leve disminución en la tensión de la misma fase, además de la aparición de corriente residual. A partir de lo anterior se puede presumir la existencia de un cortocircuito monofásico en la fase C.

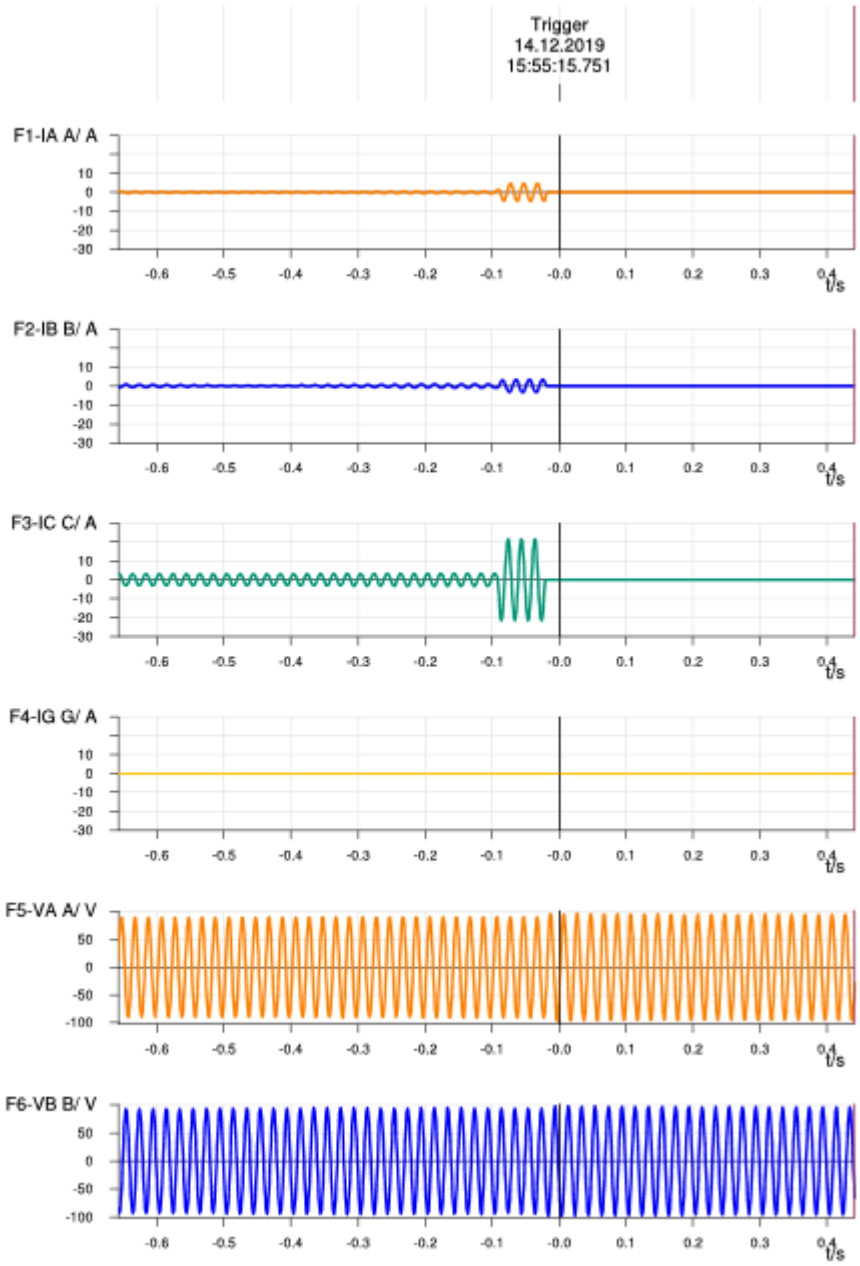
Event Number	Date/Time	Cause	Data
5731	Dec 14 2019 15:55:15.673816	52H3 Abierto On (CI2)	
5730	Dec 14 2019 15:55:15.648814	52H3 cerrado Off (CI3)	
5729	Dec 14 2019 15:55:15.634038	Osc Trigger Off (VO64)	
5728	Dec 14 2019 15:55:15.631603	OSCILLOGRAPHY TRIG'D	
5727	Dec 14 2019 15:55:15.631603	Osc Trigger On (VO64)	
5726	Dec 14 2019 15:55:15.631603	FAULT RPT TRIG	
5725	Dec 14 2019 15:55:15.629040	TRIP BOB2 Closed (CO19)	
5724	Dec 14 2019 15:55:15.629040	TRIP BOB1 Closed (CO16)	
5723	Dec 14 2019 15:55:15.629040	TRIPBUS 1 OP	
5722	Dec 14 2019 15:55:15.629040	TRIPBUS 1 PKP	
5721	Dec 14 2019 15:55:15.629040	NEUTRAL TOC1 OP	
5720	Dec 14 2019 15:55:15.599036	68 T/P fail Off (VO2)	
5719	Dec 14 2019 15:55:15.071264	Osc Trigger Off (VO64)	
5718	Dec 14 2019 15:55:15.068698	OSCILLOGRAPHY TRIG'D	
5717	Dec 14 2019 15:55:15.068698	Osc Trigger On (VO64)	
5716	Dec 14 2019 15:55:15.068698	68 T/P fail On (VO2)	
5715	Dec 14 2019 15:55:15.068698	POWER SWING UN/BLOCK	
5714	Dec 14 2019 15:55:15.053699	POWER SWING BLOCK	
5713	Dec 14 2019 15:55:15.023727	POWER SWING OUTER	
5712	Dec 14 2019 15:55:15.016280	TRIP 85A On (VO4)	
5711	Dec 14 2019 15:55:15.011783	RX 85A ACON On (CI5)	
5710	Dec 14 2019 15:55:14.998752	NEUTRAL TOC1 PKP	
5709	Dec 14 2019 15:55:14.993754	Osc Trigger Off (VO64)	
5708	Dec 14 2019 15:55:14.991324	OSCILLOGRAPHY TRIG'D	
5707	Dec 14 2019 15:55:14.991324	Osc Trigger On (VO64)	
5706	Dec 14 2019 15:55:14.991324	GND DIST Z2 PKP C	
5705	Dec 14 2019 15:55:14.988756	TX 85A Esp Closed (CO9)	
5704	Dec 14 2019 15:55:14.988756	TX 85A Acon Closed (CO7)	
5703	Dec 14 2019 15:55:14.988756	TX 85A On (VO10)	
5702	Dec 14 2019 15:55:14.988756	HYBRID POTT TX1	
5701	Dec 14 2019 15:55:14.988756	NTRL DIR OC1 FWD	

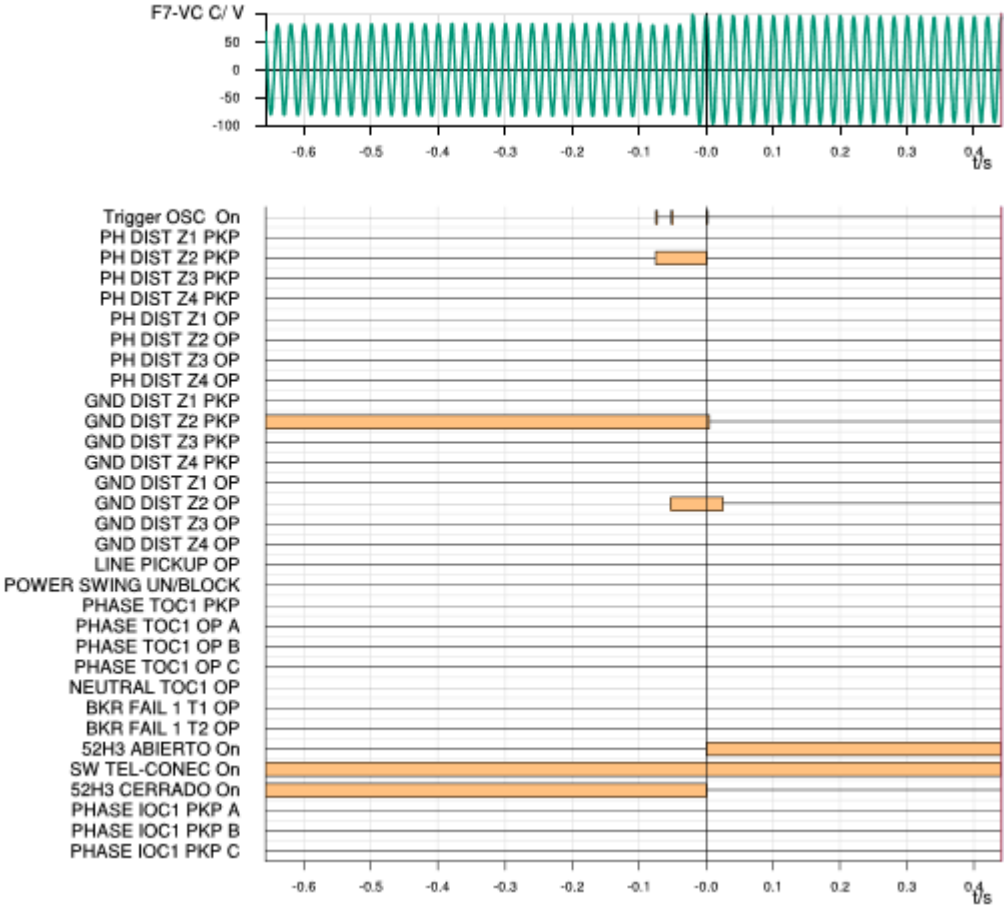
Por otra parte, del registro de eventos se puede observar la detección de la falla por parte del elemento de distancia residual en su segunda zona (registro N°5706), además del elemento direccional de sobrecorriente residual (registro N°5710), siendo este último el que envía orden de trip en un tiempo de 631 [ms] (registro N°5721).

Finalmente, la apertura del interruptor se produce en un tiempo de 44 [ms] (registro N°5731).

Protecciones asociadas al paño H3 de S/E Aconcagua

Registro oscilográfico y de eventos





Del registro oscilográfico se puede observar, en primera instancia, una mayor presencia de corriente por la fase C. Luego, posterior a la apertura del interruptor 52H3 de S/E Los Maquis, se ve un aumento en la magnitud de corriente por las tres fases, pero con mayor intensidad en la fase C. A partir de lo anterior se puede corroborar la existencia de la falla.

FORMAT	EVENT	Date/Time	Cause
SHORT_EVENT	411	Dec 14 2019 15:55:14.998396	GND DIST Z2 PKP C
SHORT_EVENT	412	Dec 14 2019 15:55:14.998396	NEUTRAL TOC1 PKP
SHORT_EVENT	413	Dec 14 2019 15:55:14.998396	HYBRID POTT TX1
SHORT_EVENT	414	Dec 14 2019 15:55:14.998396	TX 85A On (VO7)
SHORT_EVENT	415	Dec 14 2019 15:55:14.998396	Trigger OSC On (VO10)
SHORT_EVENT	416	Dec 14 2019 15:55:14.998396	OSCILLOGRAPHY TRIG'D
SHORT_EVENT	417	Dec 14 2019 15:55:14.998396	TX 85A ESP On (CO19)
SHORT_EVENT	418	Dec 14 2019 15:55:14.998396	TX 85A MAQ On (CO20)
SHORT_EVENT	419	Dec 14 2019 15:55:15.000911	NTRL DIR OC1 FWD
SHORT_EVENT	420	Dec 14 2019 15:55:15.000911	Trigger OSC Off (VO10)
SHORT_EVENT	421	Dec 14 2019 15:55:15.004671	POTT RX MAQ On (CI9)
SHORT_EVENT	422	Dec 14 2019 15:55:15.673690	POWER SWING MIDDLE
SHORT_EVENT	423	Dec 14 2019 15:55:15.673690	POWER SWING OUTER
SHORT_EVENT	424	Dec 14 2019 15:55:15.676192	PH DIST Z2 PKP BC
SHORT_EVENT	425	Dec 14 2019 15:55:15.676192	PH DIST Z2 PKP CA
SHORT_EVENT	426	Dec 14 2019 15:55:15.676192	Trigger OSC On (VO10)
SHORT_EVENT	427	Dec 14 2019 15:55:15.676192	OSCILLOGRAPHY TRIG'D
SHORT_EVENT	428	Dec 14 2019 15:55:15.678695	POWER SWING INNER
SHORT_EVENT	429	Dec 14 2019 15:55:15.678695	Trigger OSC Off (VO10)
SHORT_EVENT	430	Dec 14 2019 15:55:15.698712	GND DIST Z2 OP C
SHORT_EVENT	431	Dec 14 2019 15:55:15.698712	TRIPBUS 1 PKP
SHORT_EVENT	432	Dec 14 2019 15:55:15.698712	TRIPBUS 1 OP
SHORT_EVENT	433	Dec 14 2019 15:55:15.698712	Trigger OSC On (VO10)
SHORT_EVENT	434	Dec 14 2019 15:55:15.698712	OSCILLOGRAPHY TRIG'D
SHORT_EVENT	435	Dec 14 2019 15:55:15.698712	Trip Bob-2 On (CO4)
SHORT_EVENT	436	Dec 14 2019 15:55:15.698712	Alarma21-21N On (CO18)
SHORT_EVENT	437	Dec 14 2019 15:55:15.701214	Trigger OSC Off (VO10)
SHORT_EVENT	438	Dec 14 2019 15:55:15.746261	PH DIST Z2 DPO CA
SHORT_EVENT	439	Dec 14 2019 15:55:15.748803	52H3 ABIERTO On (CI1)
SHORT_EVENT	440	Dec 14 2019 15:55:15.751266	PH DIST Z2 DPO BC
SHORT_EVENT	441	Dec 14 2019 15:55:15.751266	52H3 CERRADO Off (VO4)
SHORT_EVENT	442	Dec 14 2019 15:55:15.751266	ECO On (VO6)
SHORT_EVENT	443	Dec 14 2019 15:55:15.751266	Trigger OSC On (VO10)
SHORT_EVENT	444	Dec 14 2019 15:55:15.751266	OSCILLOGRAPHY TRIG'D
SHORT_EVENT	445	Dec 14 2019 15:55:15.753770	Trigger OSC Off (VO10)
SHORT_EVENT	446	Dec 14 2019 15:55:15.756273	GND DIST Z2 DPO C
SHORT_EVENT	447	Dec 14 2019 15:55:15.758776	NEUTRAL TOC1 DPO
SHORT_EVENT	448	Dec 14 2019 15:55:15.776296	Trip Bob-2 Off (CO4)
SHORT_EVENT	449	Dec 14 2019 15:55:15.776296	Alarma21-21N Off (CO18)
SHORT_EVENT	450	Dec 14 2019 15:55:15.819835	POTT RX MAQ Off (CI9)
SHORT_EVENT	451	Dec 14 2019 15:55:15.823847	ECO Off (VO6)

Por otra parte, del registro de eventos se puede observar la detección de la falla por parte del elemento direccional de sobrecorriente residual (registro N°412), además del elemento de distancia residual en su segunda zona (registro N°411), siendo este último el que envía orden de trip en un tiempo de 700 [ms] (registro N°430).

Finalmente, la apertura del interruptor se produce en un tiempo de 53 [ms] (registro N°441).

8. Detalle de toda la información utilizada en la evaluación de la falla

Detalle de la generación programada para el día 14 de diciembre de 2019 (Anexo N°1).

Detalle de la generación real del día 14 de diciembre de 2019 (Anexo N°2).

Detalle del Movimiento de Centrales e Informe Diario del CDC correspondientes al día 14 de diciembre de 2019 (Anexo N°3).

Detalle de los mantenimientos programados y forzados para el día 14 de diciembre de 2019 (Anexo N°4).

Informes de fallas de instalaciones ingresados en el sistema del Coordinador Eléctrico Nacional por Chilquinta S.A. y Colbún S.A. (Anexo N°5).

Otros antecedentes aportados por Chilquinta S.A. y Colbún S.A. (Anexo N°6).

9. Análisis de las actuaciones de protecciones

9.1 Pronunciamiento Coordinador Eléctrico Nacional y Propiedad

Se produjo la desconexión forzada de la línea 110 kV Los Maquis - Aconcagua - Esperanza por operación de protecciones debido a cortocircuito ocasionado por corte de conductor que se produjo por incendio bajo el tramo de línea 110 kV Tap San Felipe - San Felipe C1 y C2.

A raíz de esta falla se tuvo como consecuencia la pérdida de 44 [MW] asociados a las SS/EE San Rafael y San Felipe.

La propiedad de las instalaciones afectadas corresponde a la empresa Chilquinta S.A.

9.2 Desempeño de Protecciones Eléctricas

De acuerdo con los antecedentes proporcionados por las empresas Chilquinta S.A., Colbún S.A. y el correspondiente análisis realizado por el Coordinador Eléctrico Nacional:

- Se concluye correcta operación de las protecciones asociadas a los paños H3 de S/E Los Maquis y H3 de S/E Aconcagua.

9.3 Desempeño EDAC

No aplica pronunciarse sobre el desempeño de EDAC ante este evento.

9.4 Desempeño EDAG

No aplica pronunciarse sobre el desempeño de EDAG ante este evento.

10. Análisis de las acciones e instrucciones del CDC y la actuación de los CC que corresponda

No hay observaciones respecto de las actuaciones del CDC y los CC durante la falla del día 14 de diciembre de 2019.

11. Recomendación respecto de las instalaciones a las cuales el Coordinador Eléctrico Nacional debería solicitar una auditoría

Se solicitará la siguiente información adicional:

Chilquinta S.A.:

- Detalle del monto de los consumos afectados por alimentador, para cada subestación afectada.

Para el análisis de esta falla no se ha requerido la realización de auditorías en ninguna de las instalaciones del SEN.

ANEXO N°1

Detalle de la generación programada para el día 14 de diciembre de 2019

COORDINADOR ELÉCTRICO NACIONAL	Programación Diaria del Sistema Eléctrico Nacional																								
sábado, 14 de diciembre de 2019	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Costos Operación	133	133	131	132	132	132	133	123	111	108	107	107	105	106	104	100	96	95	98	118	119	119	119	119	**2.781**
Costos Encendido/Detención	46	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**50**
Costos Totales [kUSD]	**178**	**133**	**131**	**132**	**132**	**132**	**133**	**123**	**115**	**108**	**107**	**107**	**105**	**106**	**104**	**100**	**96**	**95**	**98**	**118**	**119**	**119**	**119**	**119**	**2.831**
Costo Marginal Quillota 220 kV	**37,0**	**37,0**	**36,6**	**36,5**	**36,5**	**36,5**	**36,1**	**35,4**	**34,7**	**35,0**	**34,9**	**34,9**	**34,5**	**34,9**	**34,4**	**33,5**	**33,4**	**33,3**	**33,3**	**35,8**	**37,1**	**37,4**	**37,2**	**37,2**	**35,56**
Pérdidas [MWh]	214	200	198	184	178	178	177	158	185	209	219	226	225	240	223	208	204	202	199	185	210	238	233	223	**4.919**
Consumos Propios [MWh]	400	400	400	400	400	400	400	400	392	392	392	392	392	392	392	392	392	392	392	392	392	392	392	392	**9.466**
Demanda Total [MWh]	8297	7965	7697	7545	7475	7517	7450	7533	7872	8276	8534	8613	8644	8650	8609	8489	8410	8345	8264	8302	8337	8698	8536	8208	**196.266**
Generacion Total [MWh]	**8911**	**8565**	**8294**	**8129**	**8053**	**8095**	**8027**	**8091**	**8449**	**8877**	**9145**	**9231**	**9261**	**9283**	**9224**	**9089**	**9006**	**8939**	**8856**	**8879**	**8939**	**9328**	**9160**	**8823**	**210.652**

Hidroeléctricas de Pasada	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total
Total	**1005**	**980**	**972**	**955**	**947**	**941**	**921**	**890**	**886**	**878**	**895**	**879**	**875**	**893**	**879**	**885**	**926**	**979**	**1036**	**1061**	**1099**	**1111**	**1107**	**1046**	**23.046**
CHAPIQUINA	8	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	6	8	8	8	8	8	**125**
ELTORON2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**22**
CAVANCHA	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	3	**42**
ALTOHOSPICIO	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**22**
SANTAROSA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**12**
RIOHUASCO	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	**55**
PUCLARO	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	**58**
LOSMOLLES	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	**62**
LAPALOMA	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	**55**
ELTARTARO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CH-HORNITOS	28	28	26	26	26	26	26	26	26	24	24	24	24	24	24	24	24	24	27	27	27	29	29	29	**622**
JUNCAL	14	14	14	14	14	16	16	16	16	16	16	16	16	16	16	16	16	16	16	18	18	18	18	18	**384**
JUNCALITO	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**12**
BLANCO	34	34	34	32	32	32	30	30	30	30	26	26	26	26	26	30	30	34	34	36	36	36	38	38	**760**
LOSQUILOS	22	22	22	22	22	22	23	23	24	24	24	24	24	24	24	24	26	26	26	26	26	26	26	26	**578**
CHACABUQUITO	15	15	13	13	13	13	13	13	14	14	14	14	14	14	14	14	14	14	15	15	15	15	15	15	**338**
SAUCEANDES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**12**
CARENA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ALFALFAL	159	159	159	156	156	150	140	130	110	98	98	98	95	95	95	95	115	115	125	130	150	159	159	159	**3105**
MAITENES	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	13	12	**289**
QUELTEHUES	41	41	41	41	41	41	41	38	38	38	38	38	38	38	38	38	38	38	38	40	40	40	40	40	**943**
VOLCAN	11	11	11	11	11	11	11	11	11	11	11	11	11	10	10	10	11	11	11	11	11	11	11	11	**261**
GUAYACAN	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	**204**
FLORIDA-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
FLORIDA-2	4	4	4	4	6	8	8	8	6	6	6	4	4	4	4	4	4	4	4	4	5	5	5	6	**121**
FLORIDA-3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	**55**
PUNTILLA	11	11	11	12	12	12	13	13	15	15	16	16	15	14	12	12	12	12	11	11	11	10	10	10	**293**
EYZAGUIRRE	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**14**
LASVERTIENTES	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	**41**
ELLANO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**7**
ELRINCON	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**
MALLARAUCO	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	**72**
LOSBAJOS	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	**110**
AUXDELMAIPO	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	**82**
LOSMORROS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**26**
COYA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SAUZAL	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	**1274**
SAUZALITO	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	**238**
CHACAYES	85	85	85	85	85	85	80	80	80	70	70	70	70	70	70	70	70	70	80	80	85	85	85	85	**1880**
SANANDRES	40	30	30	30	40	40	40	20	20	30	30	30	30	40	30	40	40	40	40	40	40	40	40	40	**840**
CONVENTOVIEJO	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	**82**
LAHIGUERA	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	**2040**
LACONFLUENCIA	65	65	65	65	65	70	74	75	71	70	70	65	65	65	65	65	65	65	65	65	66	68	68	68	**1610**
ELPASO	10	10	10	10	10	10	10	10	10	10	15	15	15	25	25	25	35	35	40	40	40	35	35	20	**500**
DOSVALLES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
PALACIOS	1	1	1	1	1	1	1	2	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	**47**
LIRCAY	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	**475**
MARIPOSAS	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	**67**
PROVIDENCIA	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	**36**
RIOCOLORADO	7	7	7	7	7	7	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	7	**157**
ROBLERIA	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	**58**
ANCOA	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	**528**
ITATA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ELDIUTO	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	**70**
MUNILQUE-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
MUNILQUE-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**10**
BIFURCADA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**
CALIBORO	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**24**
RENAICO	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	**96**
ALTORENAICO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
RIOPICOIQUEN	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	**112**
BOQUIAMARGO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ELMIRADOR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**10**
PEUCHEN	30	30	30	18	0	0	0	0	0	0	0	0	0	0	0	0	0	30	48	54	54	56	48	30	**428**
MAMPIL	30	20	20	20	18	8	0	0	0	0	14	0	0	0	0	0	0	8	18	24	34	36	34	30	**314**
LOSPADRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**
LLAUQUEREO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**7**
ELCANELO	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	**50**
DONGUIL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ALLIPEN	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	**58**
RIOTRUENO	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**26**
ELMANZANO	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	**62**
TRUFUL-TRUFUL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**17**
MOLINERAVILLARRICA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**
TRAILELFU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**10**
CARILAFQUEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
MALALCAHUELLO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUILLAILEO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**7**
BUREO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**10**
LAVINA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**12**
MULCHEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
ELAGRIO	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**24**
SANTAELENA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
PULLINQUE	5	5	5	5	5	5	5	5	15	15	15	20	20	20	20	20	20	30	30	30	30	30	30	15	**400**
RECA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**10**
SANTAISABEL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**12**
LOSCORRALES-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LOSCORRALES-2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**14**
RININAHUE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
MSA-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**14**
MAISAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**
LAMONTANA-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LAMONTANA-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
PURISIMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**
ELGALPON	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**10**
CUMPEO	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	**46**
DONWALTERIO	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	**70**
MELO	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	**46**
LICAN	6	4	0	0	0	0	0	0	7	14	16	16	16	16	14	7	7	7	7	7	7	7	7	7	**172**
DONAHILDA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**7**
MARIAELENA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CHANLEUFU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TRANQUIL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**22**
PEHUI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**
PICHILONCO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**
PILMAIQUEN	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	33	33	33	33	33	33	33	33	**744**
RUCATAYO	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	36	36	36	36	36	37	41	31	**817**
CUMBRES	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	**212**

PULELFU	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	113
CAPULLO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MUCHI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
LASFLORES	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	36
NALCAS	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	67
CALLAO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
HIDROBONITO-MC1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	79
HIDROBONITO-MC2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	53
ENSENADA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LAARENA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24
ELCOLORADO	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	12
COLLIL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	31
DONGO	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22

Eólicas	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total
Total	502	442	350	295	282	278	294	305	301	263	209	209	274	345	426	510	599	725	849	924	1026	1009	1004	980	12.401
PE-SIERRAGORDA	5	5	5	7	15	23	30	34	31	11	3	18	44	60	75	83	89	94	100	86	51	14	4	5	889
PE-VALLEDELOSVIENTOS	5	2	2	4	4	4	4	6	7	3	2	6	42	70	78	81	79	81	80	78	66	44	24	6	777
PE-TALTAL	44	47	45	42	39	44	58	68	62	39	15	7	13	28	47	56	55	52	41	24	12	7	9	15	867
PE-SARCO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PE-CABOLEONES-1	18	11	5	5	16	35	46	41	32	27	25	24	20	13	10	10	17	26	34	42	47	50	51	50	653
PE-SANJUAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110	114	112	107	443
PE-PUNTACOLORADA	0	0	0	0	0	0	1	1	1	1	1	2	5	6	8	9	8	6	3	1	1	0	0	0	53
PE-ELARRAYAN	69	57	38	23	13	6	2	4	9	14	16	13	8	6	8	11	16	29	45	62	80	96	104	106	835
PE-TALINAYPONIENTE	42	35	23	16	11	6	3	3	5	6	5	6	8	11	14	19	26	34	42	48	52	54	55	55	575
PE-TALINAYORIENTE	25	16	6	3	2	2	3	7	13	13	10	10	15	25	37	46	53	62	71	76	76	71	67	66	774
PE-PUNTASIERRA	53	42	29	20	13	7	3	3	6	10	13	11	8	8	12	19	30	45	59	67	73	77	77	77	761
PE-LOSCURUROS	9	5	2	0	0	0	0	1	18	21	5	5	7	7	10	17	26	40	49	50	19	15	14	15	335
PE-MONTEREDONDO	17	12	8	5	3	1	0	0	2	4	4	3	2	2	4	7	11	17	23	29	22	18	17	18	227
PE-PUNTAPALMERAS	26	22	18	14	10	5	2	1	1	2	3	4	4	4	6	10	15	20	26	29	32	34	35	35	357
PE-CANELA	6	5	4	3	2	1	0	0	1	2	2	2	2	2	3	4	5	7	9	9	10	10	10	10	104
PE-CANELA-2	30	24	19	14	9	4	2	2	3	5	6	6	6	6	8	12	18	27	36	40	41	41	41	40	441
PE-TOTORAL	23	18	13	9	6	3	1	1	2	4	4	4	4	4	6	9	11	16	21	25	30	33	33	32	309
PE-UCUQUER-2	9	9	9	8	8	6	6	7	6	4	3	2	2	1	2	3	4	3	3	3	3	4	5	6	112
PE-UCUQUER	0	0	0	0	0	0	1	0	0	0	0	1	1	2	4	5	6	6	3	1	2	2	0	0	34
PE-LASPENAS	8	8	8	8	8	7	8	8	8	8	8	8	7	6	7	8	8	8	8	8	8	8	8	7	189
PE-CUEL	6	8	9	9	9	9	8	8	6	5	3	2	2	1	1	2	2	3	5	10	15	20	21	21	184
PE-RENAICO	13	14	16	17	18	17	17	16	14	15	13	11	9	9	10	13	19	28	39	48	59	71	72	67	623
PE-SANGABRIEL	38	39	41	40	37	38	38	35	32	29	26	22	21	22	24	27	33	45	64	92	123	143	145	138	1288
PE-ELNOGAL	4	2	3	3	4	5	3	2	4	5	2	1	0	0	1	1	1	1	2	2	2	3	4	6	60
PE-LOSBUENOSAIRES	6	7	7	6	6	6	6	5	5	4	3	2	1	1	1	1	2	3	6	11	16	18	19	18	162
PE-LAESPERANZA	2	3	3	3	3	3	3	2	2	2	1	1	1	1	1	1	1	2	3	5	7	8	9	9	72
PE-LEBU-3	2	1	1	1	2	2	2	3	3	3	3	2	3	2	2	2	2	2	2	2	2	2	2	1	47
PE-LEBU	2	2	2	2	2	2	3	3	3	3	3	2	2	2	3	2	2	2	2	2	2	2	2	2	54
PE-HUAJACHE	6	5	3	4	5	4	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	129
PE-RAKI	7	6	4	4	7	5	7	8	5	6	8	8	8	8	8	9	9	8	8	8	8	8	8	6	168
PE-AURORA	25	36	26	25	32	32	29	30	18	13	17	21	21	24	28	37	43	47	53	53	46	31	43	50	779
PE-SANPEDRO	3	1	1	0	0	0	0	0	0	0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	21
PE-SANPEDRO-2	2	2	2	2	2	1	1	1	0	1	1	2	3	4	4	4	4	5	6	7	7	7	6	6	80

Solares	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total
Total	0	0	0	0	0	0	6	454	1467	1944	2144	2279	2339	2362	2337	2306	2241	2104	1739	684	34	1	0	0	24.439
PFV-ELAGUILA	0	0	0	0	0	0	0	0	1	1	1	2	2	2	2	2	1	1	1	0	0	0	0	0	14
PFV-PAMPACAMARONES	0	0	0	0	0	0	0	1	3	5	5	5	5	5	5	5	5	5	4	1	0	0	0	0	52
PFV-POZOALMONTE-1	0	0	0	0	0	0	0	1	4	6	6	6	6	6	6	7	7	6	5	1	0	0	0	0	69
PFV-POZOALMONTE-2	0	0	0	0	0	0	0	1	4	6	7	7	6	6	6	7	7	6	5	1	0	0	0	0	69
PFV-POZOALMONTE-3	0	0	0	0	0	0	0	2	9	13	14	14	14	14	14	14	14	14	10	2	0	0	0	0	147
PFV-LOSPUQUIOS	0	0	0	0	0	0	0	0	1	2	2	3	3	3	3	3	2	2	1	0	0	0	0	0	23
PFV-PICA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PFV-LAHUAYCA-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PFV-HUATACONDO	0	0	0	0	0	0	0	21	55	75	81	84	86	88	87	86	83	76	59	26	3	0	0	0	910
PFV-BELLAVISTA-1	0	0	0	0	0	0	0	2	7	9	9	9	9	9	9	9	9	9	8	3	0	0	0	0	101
PFV-CALAMA-1	0	0	0	0	0	0	0	3	9	9	9	9	9	9	9	9	9	9	9	4	0	0	0	0	106
PFV-JAMA-1	0	0	0	0	0	0	0	13	26	28	29	30	30	30	30	30	30	30	27	10	0	0	0	0	343
PFV-JAMA-2	0	0	0	0	0	0	0	10	19	21	22	22	22	22	22	22	22	22	20	7	0	0	0	0	255
PFV-MARIAELENA	0	0	0	0	0	0	0	12	41	51	54	59	59	58	57	56	55	53	44	14	0	0	0	0	611
PFV-FINISTERRAE	0	0	0	0	0	0	0	26	88	107	109	113	114	114	113	111	111	108	92	30	0	0	0	0	1236
PFV-PUERTOSECO	0	0	0	0	0	0	0	2	7	9	9	9	9	9	9	9	9	8	6	1	0	0	0	0	94
PFV-CERRODOMINADOR	0	0	0	0	0	0	0	23	78	92	95	97	97	97	96	95	94	93	81	30	0	0	0	0	1069
PFV-BOLERO-1	0	0	0	0	0	0	0	32	100	114	118	122	125	127	127	125	125	122	105	40	0	0	0	0	1380
PFV-URIBESOLAR	0	0	0	0	0	0	0	10	37	47	50	50	50	50	50	50	50	50	43	20	0	0	0	0	557
PFV-ANDES	0	0	0	0	0	0	0	6	18	20	20	20	21	21	21	20	21	20	17	7	0	0	0	0	231
PFV-LALACKAMA	0	0	0	0	0	0	0	16	50	55	55	55	55	55	55	55	55	55	50	16	0	0	0	0	626
PFV-LALACKAMA-2	0	0	0	0	0	0	0	3	9	12	13	13	13	13	13	13	13	12	9	4	0	0	0	0	140
PFV-PAMPASOLARNORTE	0	0	0	0	0	0	0	9	46	65	67	69	69	69	69	69	69	69	63	27	1	0	0	0	761
PFV-CONEJO	0	0	0	0	0	0	0	25	85	104	104	104	104	104	104	104	104	104	94	36	1	0	0	0	1177
PFV-JAVIERA	0	0	0	0	0	0	0	8	30	44	53	60	63	65	65	64	63	63	56	24	1	0	0	0	657
PFV-CHANARES	0	0	0	0	0	0	0	3	14	24	29	32	34	35	35	35	35	33	25	9	0	0	0	0	343
PFV-SALVADOR	0	0	0	0	0	0	0	15	43	53	58	61	63	65	66	66	65	61	54	27	1	0	0	0	695
PFV-PILARLOSAMARILLOS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PFV-DIEGODEALMAGRO	0	0	0	0	0	0	0	2	9	16	22	27	29	29	29	29	26	20	14	5	0	0	0	0	254
PFV-DAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PFV-CARRERAPINTO	0	0	0	0	0	0	0	0	59	72	73	73	73	73	73	73	73	72	66	0	0	0	0	0	781
PFV-LUZDELNORTE	0	0	0	0	0	0	0	45	110	128	135	136	136	136	136	135	135	127	110	53	3	0	0	0	1525
PFV-LLANODELLAMPOS	0	0	0	0	0	0	0	20	61	74	82	86	88	89	89	89	86	82	72	35	1	0	0	0	953
PFV-SANANDRES	0	0	0	0	0	0	0	5	19	31	37	41	43	44	44	43	42	40	34	13	1	0	0	0	434
PFV-ANTAY	0	0	0	0	0	0	0	0	1	2	5	9	9	9	9	9	8	6	3	0	0	0	0	0	70
PFV-PILOTOCARDONES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
PFV-ESPERANZA	0	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	1	1	1	1	0	0	0	0	17
PFV-LASTERRAZAS	0	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	1	1	1	1	0	0	0	0	17
PFV-LOSLOROS	0	0	0	0	0	0	0	2	11	23	33	41	45	45	45	41	33	23	10	2	0	0	0	0	355
PFV-HORNITOS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PFV-VALLESOLARESTE	0	0	0	0	0	0	0	0	0	1	3	8	9	9	9	9	9	9	8	2	0	0	0	0	76
PFV-VALLESOLAROESTE	0	0	0	0	0	0	0	0	0	1	3	8	9	9	9	9	9	9	8	2	0	0	0	0	76
PFV-MALAQUITA	0	0	0	0	0	0	0	1	7	9	9	9	9	9	9	9	9	9	8	4	0	0	0	0	101
PFV-CACHIYUYO	0	0	0	0	0	0	0	3	8	9	9	9	9	9	9	9	9	9	6	2	0	0	0	0	99
PFV-SANTACECILIA	0	0	0	0	0	0	0	0	0	1	1	2	2	2	2	1	1	1	0	0	0	0	0	0	13
PFV-ELROMERO	0	0	0	0	0	0	0	12	54	106	146	172	187	189	177	161	140	99	50	11	0	0	0	0	1505
PFV-ELPELICANO	0	0	0	0	0	0	0	24	71	93	97	99	99	99	92	91	99	97	82	37	2	0	0	0	1082
PFV-LASILLA	0	0	0	0	0	0	0	0	1	1	1	2	2	2	1	1	1	1	1	1	0	0	0	0	16
PFV-PUNTABAJASOLAR	0	0	0	0	0	0	0	0	0	1	2	2	2	2	2	2	2	2	2	1	0	0	0	0	20
PFV-SOLDELNORTE	0	0	0	0	0	0	0	0	1	1	2	3	3	3	3	3	2	2	1	0	0	0	0	0	22
PFV-LUNADELNORTE	0	0	0	0	0	0	0	0	1	1	2	2	3	3	3	2	2	1	1	0	0	0	0	0	21
PFV-TAMBOREAL	0	0	0	0	0	0	0	0	0	1	2	2	3	3	3	2	2	1	1	0	0	0	0	0	20
PFV-LAGUNILLA	0	0	0	0	0	0	0	0	0	0	1	3	3	3	3	3	3	3	2	1	0	0	0	0	24
PFV-AMPARODELSOL	0	0	0	0	0	0	0	1	2	2	2	2	2	2	2	2	2	2	2	1	0	0	0	0	25
PFV-SDGx01	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	8
PFV-LACHAPEANA	0	0	0	0	0	0	0	0	0	0	1	2	3	3	3	3	2	2	2	1	0	0	0	0	21
PFV-ALTURASDEOVALLE	0	0	0	0	0	0	0	0	0	1	2	4	5	6	5	5	4	3	1	0	0	0	0	0	36
PFV-PAMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PFV-TALHUEN	0	0	0	0	0	0	0	1	2	2	2	2	3	3	3	3	3	3	2	1	0	0	0	0	28
PFV-SANTACLARA	0	0	0	0	0	0	0	0	0	0	1	1	2	2	3	3	3	3	3	1	0	0	0	0	21
PFV-LASMOLLACAS	0	0	0	0	0	0	0	0	0	0	0	1	2	3	3	2	2	2	1	0	0	0	0	0	16
PFV-ELDIVISADERO	0	0	0	0	0	0	0	0	1	3	3	3	3	3	3	3	3	3	3	2	0	0	0	0	33
PFV-LOMASCOLORADAS	0	0	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	1	1	0	0	0	0	0	15
PFV-CASASBLANCAS	0	0	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	1	1	0	0	0	0	0	15
PFV-BELLAVISTA	0	0	0	0	0	0	0	0	0	1	2	3	3	3	3	3	2	2	1	0	0	0	0	0	22
PFV-CANESA1	0	0	0	0	0	0	0	0	1	2	3	3	3	3	3	3	3	2	2	1	0	0	0	0	28
PFV-SANTALAURA	0	0	0	0	0	0	0	0	1	2	2	2	2	2	2	2	2	2	2	1	0	0	0	0	22
PFV-MONTTSOLAR	0	0	0	0	0	0	0	0	1	3	3	3	3	3	3	3	3	3	3	1	0	0	0	0	31
PFV-CHUCHINI	0	0	0	0	0	0	0	0	0	1	2	3	3	3	3	3	2	2	1	0	0	0	0	0	22
PFV-ILLAPEL-5	0	0	0	0	0	0	0	0	0	1	3	3	3	3	3	3	3	3	2	1	0	0	0	0	27

PFV-CHALINGA	0	0	0	0	0	0	0	0	2	2	2	2	3	2	2	2	2	2	2	1	0	0	0	0	**26**
PFV-ALICAHUE	0	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	2	2	1	0	0	0	0	0	**17**
PFV-CUZCUZ	0	0	0	0	0	0	0	0	0	1	2	1	2	2	2	2	2	1	1	0	0	0	0	0	**15**
PFV-NORTECHICO-1	0	0	0	0	0	0	0	0	1	2	2	2	2	2	2	2	2	2	2	1	0	0	0	0	**20**
PFV-JAURURO	0	0	0	0	0	0	0	0	0	0	1	1	2	2	2	2	1	1	1	0	0	0	0	0	**12**
PFV-LALIGUA	0	0	0	0	0	0	0	0	0	1	2	3	3	3	3	3	2	2	1	0	0	0	0	0	**22**
PFV-ARIZTIA	0	0	0	0	0	0	0	0	0	2	3	3	3	3	3	3	3	2	2	1	0	0	0	0	**25**
PFV-SANTAJULIA	0	0	0	0	0	0	0	0	1	3	3	3	3	3	3	3	3	3	3	1	0	0	0	0	**31**
PFV-CABILSOL	0	0	0	0	0	0	0	0	0	1	2	2	3	3	3	2	2	1	1	0	0	0	0	0	**20**
PFV-ELQUEMADO	0	0	0	0	0	0	0	0	1	3	3	3	3	3	3	3	3	3	3	1	0	0	0	0	**32**
PFV-DONACARMEN	0	0	0	0	0	0	0	1	4	9	13	18	23	25	26	25	22	15	8	3	0	0	0	0	**192**
PFV-SANTUARIO	0	0	0	0	0	0	0	1	2	2	2	2	2	2	3	3	3	2	2	1	0	0	0	0	**26**
PFV-CALLELARGA	0	0	0	0	0	0	0	1	2	3	3	3	3	3	3	3	3	3	2	1	0	0	0	0	**33**
PFV-CASUTO	0	0	0	0	0	0	0	1	2	2	3	3	3	3	3	3	3	2	1	0	0	0	0	0	**27**
PFV-SANFRANCISCO	0	0	0	0	0	0	0	1	2	2	2	2	2	2	2	2	2	2	2	1	0	0	0	0	**25**
PFV-NILHUE	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	**6**
PFV-HORMIGA	0	0	0	0	0	0	0	0	1	1	1	2	2	2	2	2	2	1	1	0	0	0	0	0	**16**
PFV-MARIN	0	0	0	0	0	0	0	1	2	3	3	3	3	3	3	3	3	3	2	0	0	0	0	0	**30**
PFV-ENCONSOLAR	0	0	0	0	0	0	0	1	3	6	7	7	8	8	8	8	7	7	6	3	0	0	0	0	**80**
PFV-VALLEDELALUNA-2	0	0	0	0	0	0	0	1	2	2	2	2	2	2	2	2	2	2	2	1	0	0	0	0	**24**
PFV-SOLAR1	0	0	0	0	0	0	0	1	3	3	3	3	3	3	3	3	3	3	3	1	0	0	0	0	**35**
PFV-LIPANGUE	0	0	0	0	0	0	0	0	1	2	2	2	2	2	3	2	2	2	1	0	0	0	0	0	**22**
PFV-ELQUELTEHUE	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	2	3	3	2	1	0	0	0	0	**27**
PFV-ELBOCO	0	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	2	2	1	0	0	0	0	0	**20**
PFV-OLIVILLO	0	0	0	0	0	0	0	1	4	8	8	9	9	9	9	9	9	8	6	3	0	0	0	0	**90**
PFV-PANQUEHUE-2	0	0	0	0	0	0	0	0	1	3	4	5	5	6	6	5	4	3	1	0	0	0	0	0	**43**
PFV-OVEJERIA	0	0	0	0	0	0	0	2	4	6	6	7	7	7	7	7	7	7	6	3	0	0	0	0	**76**
PFV-PICURIO	0	0	0	0	0	0	0	1	2	2	2	3	3	3	3	3	3	3	2	1	0	0	0	0	**29**
PFV-TILTIL	0	0	0	0	0	0	0	1	2	2	2	2	2	2	2	2	2	2	1	1	0	0	0	0	**21**
PFV-LOMALOSCOLORADOS	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	**12**
PFV-LUNA	0	0	0	0	0	0	0	0	0	2	3	3	3	3	3	2	3	2	2	1	0	0	0	0	**25**
PFV-ELQUEULE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
PFV-OCOA	0	0	0	0	0	0	0	1	2	2	2	2	2	2	2	2	3	2	2	1	0	0	0	0	**25**
PFV-SANTIAGOSOLAR	0	0	0	0	0	0	2	20	49	67	74	78	81	83	83	83	81	78	65	34	6	0	0	0	**883**
PFV-ELPIQUERO	0	0	0	0	0	0	0	0	2	3	3	3	3	3	3	3	3	3	2	1	0	0	0	0	**29**
PFV-TUCUQUERE	0	0	0	0	0	0	0	1	2	3	3	3	3	3	3	3	3	3	3	1	0	0	0	0	**34**
PFV-RODEO	0	0	0	0	0	0	0	1	2	2	2	2	3	3	3	3	2	2	2	1	0	0	0	0	**26**
PFV-PLACILLA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
PFV-PEDREROS	0	0	0	0	0	0	0	1	2	2	3	3	3	3	3	3	3	3	2	1	0	0	0	0	**31**
PFV-DONEUGENIO	0	0	0	0	0	0	0	1	2	3	3	3	3	2	3	3	3	3	2	1	0	0	0	0	**29**
PFV-LAQUINTA	0	0	0	0	0	0	0	1	2	3	3	3	3	3	3	3	3	2	2	1	0	0	0	0	**30**
PFV-LUDERS	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	2	3	3	2	1	0	0	0	0	**27**
PFV-CHANCON	0	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	2	2	1	1	0	0	0	0	**17**
PFV-PERALILLO	0	0	0	0	0	0	0	1	2	2	2	2	2	2	2	2	2	2	3	1	0	0	0	0	**25**
PFV-MOSTAZAL	0	0	0	0	0	0	0	2	4	5	6	6	7	7	6	7	7	7	6	3	0	0	0	0	**72**
PFV-CHIMBARONGO	0	0	0	0	0	0	0	0	1	2	2	2	2	2	2	2	2	2	2	1	0	0	0	0	**21**
PFV-LOSLIBERTADORES	0	0	0	0	0	0	0	1	2	3	4	6	5	5	5	5	4	4	3	2	0	0	0	0	**49**
PFV-CATANSOLAR	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	2	2	2	1	0	0	0	0	0	**22**
PFV-VILLAPRAT	0	0	0	0	0	0	0	0	1	2	3	2	3	3	3	3	3	3	2	1	0	0	0	0	**27**
PFV-LOSPATOS	0	0	0	0	0	0	0	1	2	2	2	2	2	2	2	2	2	2	2	1	0	0	0	0	**27**
PFV-LAFRONTERA	0	0	0	0	0	0	0	0	1	3	4	4	5	5	5	4	4	3	1	0	0	0	0	0	**37**
PFV-TALCA	0	0	0	0	0	0	0	3	6	7	8	8	8	9	8	8	8	8	7	4	0	0	0	0	**91**
PFV-RANGUIL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
PFV-LAACACIA	0	0	0	0	0	0	0	2	5	7	6	6	7	7	7	7	7	7	6	3	0	0	0	0	**77**
PFV-ROVIAN	0	0	0	0	0	0	0	2	5	7	7	7	7	7	7	7	7	7	6	3	0	0	0	0	**78**
PFV-JSOLERM	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	**15**
PFV-LALAJUELA	0	0	0	0	0	0	0	1	2	6	7	7	7	7	7	7	7	7	7	4	0	0	0	0	**75**
PFV-ALTOSTILTIL	0	0	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	1	0	0	0	0	0	0	**16**
PFV-QUILAPILUN	0	0	0	0	0	0	1	12	35	58	65	71	70	77	75	82	74	68	61	33	5	1	0	0	**788**
PFV-LASARAUCARIAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
PFV-TECHOSDEALTAMIRA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
PFV-PIRQUE	0	0	0	0	0	0	0	1	2	2	3	3	3	2	3	3	3	2	2	1	0	0	0	0	**28**
PFV-FOTOVOLTSOLAR-1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	**6**
PFV-FRANCISCO	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	2	2	2	2	1	0	0	0	0	**23**
PFV-TRICAHUE-2	0	0	0	0	0	0	0	3	6	8	9	9	9	9	9	9	9	8	7	3	0	0	0	0	**96**
PFV-SANISIDRO	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	**9**
PFV-LABLANQUINA-1	0	0	0	0	0	0	0	2	5	8	8	8	8	5	4	7	6	6	5	2	0	0	0	0	**74**
PFV-HOMERO	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	2	2	2	2	1	0	0	0	0	**23**
PFV-ELPILPEN	0	0	0	0	0	0	0	1	2	2	3	3	3	3	3	3	3	3	3	1	0	0	0	0	**30**
PFV-ALTOSDELPAICO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
PFV-LAUREL	0	0	0	0	0	0	0	1	4	5	6	7	7	7	7	6	6	6	5	2	0	0	0	0	**69**
PFV-LOSIERRA	0	0	0	0	0	0	0	0	1	2	2	2	3	3	2	2	2	1	1	0	0	0	0	0	**20**
PFV-SANTAADRIANA	0	0	0	0	0	0	0	0	1	2	2	2	2	2	2	2	2	2	2	1	0	0	0	0	**24**
PFV-CRUCERO	0	0	0	0	0	0	0	1	2	3	3	3	3	3	3	3	3	3	2	1	0	0	0	0	**29**
PFV-SANPEDRO	0	0	0	0	0	0	0	0	0	1	2	2	2	2	2	2	2	1	1	0	0	0	0	0	**18**
PFV-RLA	0	0	0	0	0	0	0	0	0	1	3	3	3	3	3	3	2	2	1	1	0	0	0	0	**23**
PFV-ELROBLE	0	0	0	0	0	0	0	1	2	3	3	3	3	3	3	3	3	3	2	0	0	0	0	0	**29**
PFV-ELSAUCE	0	0	0	0	0	0	0	1	2	3	3	3	3	3	3	3	3	3	2	0	0	0	0	0	**29**
PFV-SANTAROSA	0	0	0	0	0	0	0	3	7	8	9	9	9	9	9	9	9	8	6	3	0	0	0	0	**96**
PFV-LASTURCAS	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	2	2	2	2	1	0	0	0	0	**25**
PFV-MARCHIGUE-2	0	0	0	0	0	0	0	3	8	8	8	8	8	8	8	8	8	8	9	5	1	0	0	0	**98**
PFV-MARCHIGUE-7	0	0	0	0	0	0	0	0	0	1	3	3	3	3	3	3	3	2	2	1	0	0	0	0	**25**
PFV-POBLACION	0	0	0	0	0	0	0	1	2	3	3	3	3	3	3	3	3	3	2	1	0	0	0	0	**30**
PFV-PORTEZUELO	0	0	0	0	0	0	0	1	2	2	3	3	3	2	3	3	2	2	2	1	0	0	0	0	**28**
PFV-VITUCO2B	0	0	0	0	0	0	0	1	2	3	3	3	3	3	3	3	3	3	2	1	0	0	0	0	**31**
PFV-LAMANGA-1	0	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	2	1	1	0	0	0	0	0	**18**
PFV-CORDILLERILLA	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	**11**
PFV-ALTOSOLAR	0	0	0	0	0	0	0	0	1	1	2	3	3	3	3	3	2	2	1	0	0	0	0	0	**23**
PFV-DONIHUE	0	0	0	0	0	0	0	2	6	7	7	7	7	7	7	7	7	7	6	3	0	0	0	0	**83**
PFV-LASCODORNICES	0	0	0	0	0	0	0	1	3	3	3	3	3	3	3	3	3	3	3	2	0	0	0	0	**35**
PFV-ELCERNICALO-1	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	2	1	1	1	1	0	0	0	0	**17**
PFV-ELCERNICALO-2	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	1	1	1	1	1	0	0	0	0	**17**
PFV-CHINCOL	0	0	0	0	0	0	0	1	3	3	3	3	3	3	3	3	3	3	3	2	0	0	0	0	**35**
PFV-LOSGORRIONES	0	0	0	0	0	0	0	1	2	3	3	3	3	3	3	3	3	3	2	1	0	0	0	0	**33**
PFV-LASLECHUZAS	0	0	0	0	0	0	0	2	3	3	3	3	3	3	3	3	3	3	2	1	0	0	0	0	**35**
PFV-LUCESOLAR	0	0	0	0	0	0	0	0	0	1	2	3	3	3	3	3	3	3	2	0	0	0	0	0	**25**
PFV-LASPALOMAS	0	0	0	0	0	0	0	1	2	2	2	2	2	2	2	2	3	3	3	1	0	0	0	0	**24**
PFV-LASPERDICES	0	0	0	0	0	0	0	1	2	2	3	3	3	3	3	3	3	2	2	1	0	0	0	0	**29**
PFV-VILLASECA	0	0	0	0	0	0	0	1	2	3	3	3	3	3	3	3	3	3	2	1	0	0	0	0	**29**
PFV-ELPITIO	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	1	0	0	0	0	**26**

Térmicas	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	**Total**
Total	5036	5036	4978	5023	5032	5032	5036	4761	4406	4300	4288	4276	4211	4259	4172	4040	3913	3879	4005	4627	4656	4657	4656	4656	**108.930**
ARICA-GMAR_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ARICA-M1AR_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ARICA-M2AR_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TARAPACA-CTTAR_CAR	90	90	90	90	90	90	90	90	70	70	70	70	70	70	70	70	70	70	70	90	90	90	90	90	**1940**
TARAPACA-TGTAR_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
UJINA-1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
UJINA-1_HFO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
UJINA-2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
UJINA-2_HFO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
UJINA-3_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
UJINA-3_HFO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
UJINA-4_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
UJINA-4_HFO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
UJINA-5_HFO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
UJINA-6_HFO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CERROPABELLON-G1A_GEO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CERROPABELLON-G2A_GEO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NORGENER-NTO1_CAR	141	141	141	141	141	141	141	141	141	141	141	141	132	132	141	132	132	132	132	141	141	141	141	141	**3323**
NORGENER-NTO2_CAR	136	136	136	136	136	136	136	136	136	136	136	136	128	129	136	136	136	128	128	136	136	136	136	136	**3229**

TOCOPILLA-U14_CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-U15_CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-U16_TG1_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-U16_TG1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-U16_TG1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-U16_TG1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-U16_TG1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-U16_TG1+TV1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-U16_TG1+TV1_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-U16_TG1+TV1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-U16_TG1+TV1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-U16_TG1+TV1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-U16_TG1+TV1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-TG1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-TG2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-TG3_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-TG3_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-TG3_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-TG3_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-TG3_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TOCOPILLA-TG3_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TAMAYA-SUTA_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG1_TG1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG1_TG1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG1_TG1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG1_TG1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG1_TG1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG1_TG1+0.5TV_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG1_TG1+0.5TV_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG1_TG1+0.5TV_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG1_TG1+0.5TV_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG1_TG1+0.5TV_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG12_TG1+TG2+TV1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG12_TG1+TG2+TV1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG12_TG1+TG2+TV1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG12_TG1+TG2+TV1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG12_TG1+TG2+TV1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG2_TG2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG2_TG2_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG2_TG2_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG2_TG2_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG2_TG2_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG2_TG2+0.5TV_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG2_TG2+0.5TV_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG2_TG2+0.5TV_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG2_TG2+0.5TV_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
KELAR-TG2_TG2+0.5TV_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ANGAMOS-ANG1_CAR	175	175	194	194	178	178	178	194	194	175	194	189	194	194	175	194	194	194	194	194	178	175	175	178	**4459**
ANGAMOS-ANG2_CAR	281	281	263	263	279	279	279	263	263	281	263	268	263	263	281	263	263	263	263	263	279	281	281	279	**6501**
COCHRANE-CCH1_CAR	275	275	275	275	275	275	275	275	266	269	257	257	257	257	200	138	140	154	257	275	275	275	275	275	**6027**
COCHRANE-CCH2_CAR	275	275	275	275	275	275	275	275	257	221	240	209	142	169	90	90	90	90	137	275	275	275	275	275	**5307**
MEJILLONES-CTM1_CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
MEJILLONES-CTM2_CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
MEJILLONES-CTM3_TG1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
MEJILLONES-CTM3_TG1_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
MEJILLONES-CTM3_TG1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
MEJILLONES-CTM3_TG1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
MEJILLONES-CTM3_TG1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
MEJILLONES-CTM3_TG1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
MEJILLONES-CTM3_TG1+TV1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
MEJILLONES-CTM3_TG1+TV1_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
MEJILLONES-CTM3_TG1+TV1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
MEJILLONES-CTM3_TG1+TV1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
MEJILLONES-CTM3_TG1+TV1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
MEJILLONES-CTM3_TG1+TV1_GNL_INFLEX	246	246	241	246	246	246	246	246	246	246	246	246	246	246	246	246	246	246	246	246	246	246	246	246	**5903**
MEJILLONES-IEM_CAR	350	350	350	350	350	350	350	350	350	350	350	350	348	350	350	350	350	323	331	350	350	350	350	350	**8353**
ANDINA-CTA_CAR	170	170	152	170	170	170	170	170	170	170	166	170	152	152	170	112	93	152	152	170	170	170	170	170	**3852**
HORNITOS-CTH_CAR	170	170	152	170	170	170	170	170	170	170	170	170	152	170	170	170	170	152	152	170	170	170	170	170	**4009**
ATACAMA-1TG1A_TG1A_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1A_TG1A_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1A_TG1A_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1A_TG1A_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1A_TG1A_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1A_TG1A_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1A_TG1A_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1A_TG1A+0.5TV1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1A_TG1A+0.5TV1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1A_TG1A+0.5TV1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1A_TG1A+0.5TV1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1A_TG1A+0.5TV1_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1A_TG1A+0.5TV1_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1A_TG1A+0.5TV1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1AB_TG1A+TG1B+TV1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1AB_TG1A+TG1B+TV1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1AB_TG1A+TG1B+TV1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1AB_TG1A+TG1B+TV1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1AB_TG1A+TG1B+TV1_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1AB_TG1A+TG1B+TV1_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1AB_TG1A+TG1B+TV1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1B_TG1B_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1B_TG1B_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1B_TG1B_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1B_TG1B_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1B_TG1B_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1B_TG1B_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1B_TG1B_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1B_TG1B+0.5TV1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1B_TG1B+0.5TV1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1B_TG1B+0.5TV1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1B_TG1B+0.5TV1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1B_TG1B+0.5TV1_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1B_TG1B+0.5TV1_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-1TG1B_TG1B+0.5TV1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2A_TG2A_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2A_TG2A_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2A_TG2A_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2A_TG2A_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2A_TG2A_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2A_TG2A_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2A_TG2A_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2A_TG2A+0.5TV2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2A_TG2A+0.5TV2_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2A_TG2A+0.5TV2_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2A_TG2A+0.5TV2_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2A_TG2A+0.5TV2_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2A_TG2A+0.5TV2_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2A_TG2A+0.5TV2_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2AB_TG2A+TG2B+TV2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2AB_TG2A+TG2B+TV2_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2AB_TG2A+TG2B+TV2_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2AB_TG2A+TG2B+TV2_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2AB_TG2A+TG2B+TV2_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

ATACAMA-2TG2AB_TG2A+TG2B+TV2_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2AB_TG2A+TG2B+TV2_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2B_TG2B_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2B_TG2B_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2B_TG2B_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2B_TG2B_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2B_TG2B_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2B_TG2B_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2B_TG2B_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2B_TG2B+0.5TV2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2B_TG2B+0.5TV2_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2B_TG2B+0.5TV2_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2B_TG2B+0.5TV2_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2B_TG2B+0.5TV2_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2B_TG2B+0.5TV2_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ATACAMA-2TG2B_TG2B+0.5TV2_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
PAM_COGEN	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	**586**
MANTOSBLANCOS-MIMB_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LAPORTADA-TECNET_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
INACAL_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
AGUASBLANCAS-AGB_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TALTAL-1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TALTAL-1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TALTAL-1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TALTAL-1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TALTAL-1_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TALTAL-1_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TALTAL-1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TALTAL-2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TALTAL-2_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TALTAL-2_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TALTAL-2_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TALTAL-2_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TALTAL-2_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TALTAL-2_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DALMAGRO_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ANDES-1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ANDES-1_FO6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ANDES-2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ANDES-2_FO6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ANDES-3_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ANDES-3_FO6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ANDES-4_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ANDES-4_FO6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SALVADOR_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANLORENZO-1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANLORENZO-2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANLORENZO-3_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
EMELDA-1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
EMELDA-2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CENIZAS_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TERMOPACIFICO_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CARDONES_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
GUACOLDA-1_CAR	147	147	147	147	147	147	147	147	147	75	75	75	147	147	147	147	147	147	147	147	147	147	147	147	**3312**
GUACOLDA-2_CAR	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	**3504**
GUACOLDA-3_CAR	152	152	136	140	152	152	152	137	152	152	136	152	136	136	152	148	144	136	136	148	152	152	152	152	**3509**
GUACOLDA-4_CAR	85	85	85	85	85	85	85	85	60	60	60	60	60	60	60	60	60	60	60	60	85	85	85	85	**1740**
GUACOLDA-5_CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
HUASCO-1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
HUASCO-1_IFO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
HUASCO-2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
HUASCO-2_IFO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
HUASCO-3_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
HUASCO-3_IFO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
PCOLORADA_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
PCOLORADA_IFO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
PENON_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
OLIVOS_BL1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
OLIVOS_BL1+BL2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ESPINOS_BL1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ESPINOS_BL1+BL2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NUEVAVENTANAS_CAR	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	**6528**
CAMPICHE_CAR	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	167	128	96	272	272	272	272	272	**6103**
VENTANAS-1_CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
VENTANAS-2_CAR	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	**2160**
QUINTERO-1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUINTERO-1_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUINTERO-1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUINTERO-1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUINTERO-1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUINTERO-1_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUINTERO-1_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUINTERO-1_GNL_F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUINTERO-1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUINTERO-2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUINTERO-2_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUINTERO-2_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUINTERO-2_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUINTERO-2_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUINTERO-2_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUINTERO-2_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUINTERO-2_GNL_F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUINTERO-2_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1_GNL_F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1_GNL_F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1_FSTVD_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1_FSTVD_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1_FSTVD_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1_FSTVD_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1_FSTVD_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1_FSTVD_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1_FSTVD_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1_FSTVD_GNL_F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1_FSTVD_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1+FA1_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1+FA1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

SANISIDRO-1_TG1+TV1+FA1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1+FA1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1+FA1_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1+FA1_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1+FA1_GNL_F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-1_TG1+TV1+FA1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1_GNL_F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1+TV1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1+TV1_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1+TV1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1+TV1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1+TV1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1+TV1_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1+TV1_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1+TV1_GNL_F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1+TV1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1+TV1_FSTVU_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1+TV1_FSTVU_GN_A	380	380	380	380	378	380	380	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2827**
SANISIDRO-2_TG1+TV1_FSTVU_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1+TV1_FSTVU_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1+TV1_FSTVU_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1+TV1_FSTVU_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1+TV1_FSTVU_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1+TV1_FSTVU_GNL_F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANISIDRO-2_TG1+TV1_FSTVU_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1+TV1+FA1_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1+TV1+FA1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1+TV1+FA1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1+TV1+FA1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1+TV1+FA1_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1+TV1+FA1_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1+TV1+FA1_GNL_F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1+TV1+FA1_GNL_G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1_GNL_F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1_GNL_G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1+TV1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1+TV1_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1+TV1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1+TV1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1+TV1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1+TV1_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1+TV1_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1+TV1_GNL_F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1+TV1_GNL_G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-1_TG1+TV1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-2_TG1_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-2_TG1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-2_TG1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-2_TG1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-2_TG1_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-2_TG1_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-2_TG1_GNL_F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-2_TG1_GNL_G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-2_TG1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-2_TG1+TV1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-2_TG1+TV1_GN_A	387	387	387	387	386	387	387	387	387	387	387	387	387	387	387	387	387	387	387	387	387	387	387	387	**9277**
NEHUENCO-2_TG1+TV1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-2_TG1+TV1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-2_TG1+TV1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-2_TG1+TV1_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-2_TG1+TV1_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-2_TG1+TV1_GNL_F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-2_TG1+TV1_GNL_G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-2_TG1+TV1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-9B_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-9B_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-9B_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-9B_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-9B_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-9B_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-9B_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-9B_GNL_F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-9B_GNL_G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEHUENCO-9B_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
COLMITO_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
COLMITO_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
COLMITO_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CONCON_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
PLACILLA_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LAGVERDE-TG_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LAGVERDE-TV_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
QUINTAY_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ELTOTORAL_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LASVEGAS_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LOSVIENTOS_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LOSVIENTOS_DIESEL_CNAVIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LOMALOSCOLORADOS-1_BIOGAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LOMALOSCOLORADOS-2_BIOGAS	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	**336**
NUEVARENCA_TG1+TV1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NUEVARENCA_TG1+TV1_GN_A	339	339	339	339	339	335	339	290	160	160	160	160	160	160	160	160	160	160	160	339	339	339	339	339	**6112**
NUEVARENCA_TG1+TV1_GN_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NUEVARENCA_TG1+TV1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NUEVARENCA_TG1+TV1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NUEVARENCA_TG1+TV1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NUEVARENCA_TG1+TV1_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NUEVARENCA_TG1+TV1_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NUEVARENCA_TG1+TV1_GNL_F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NUEVARENCA_TG1+TV1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NUEVARENCA_TG1+TV1_GNL_P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NUEVARENCA_TG1+TV1+FA1_GLP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NUEVARENCA_TG1+TV1+FA1_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NUEVARENCA_TG1+TV1+FA1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NUEVARENCA_TG1+TV1+FA1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NUEVARENCA_TG1+TV1+FA1_GNL_P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
RENCA-1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
RENCA-2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CMPCCORDILLERA_BL1_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

CMPCCORDILLERA_BL1+BL2_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CMPCCORDILLERA_BL1+BL2+BL3_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANTAMARTA_COGEN	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	**240**
CANDELARIA-1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-1_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-1_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-1_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-1_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-1_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-1_GNL_F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-1_GNL_G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-1_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-2_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-2_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-2_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-2_GNL_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-2_GNL_D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-2_GNL_E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-2_GNL_F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-2_GNL_G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CANDELARIA-2_GNL_INFLEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
EPACIFICO_COGEN	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	**384**
COLIHUES-1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
COLIHUES-1_HFO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
COLIHUES-2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
COLIHUES-2_HFO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ESPERANZA-DS1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ESPERANZA-DS2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ESPERANZA-TG1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TENO_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CEMENTOSBIOBIO_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CEMENTOSBIOBIO_FO6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LICANTEN_BL1_COGEN	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	**60**
LICANTEN_BL1+BL2_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CONSTITUCION_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
MAULE_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
VINALES_BL1_COGEN	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	**240**
VINALES_BL1+BL2_COGEN	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	**288**
CELCO_BL1_COGEN	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	**120**
CELCO_BL1+BL2_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LINARES_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANGREGORIO_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NUEVAALDEA-1_BL1_COGEN	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	**168**
NUEVAALDEA-1_BL1+BL2_COGEN	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	**168**
NUEVAALDEA-2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NUEVAALDEA-3_COGEN	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	**720**
LAJAEVE-1_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LAJAEVE-2_COGEN	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	**72**
MASISA_COGEN	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	**127**
SANTALIDIA_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LOSPINOS_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LOSGUINDOS_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LOSGUINDOS-2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANTAFE_BL1_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANTAFE_BL1+BL2_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANTAFE_BL1+BL2+BL3_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANTAFE_BL1+BL2+BL3+BL4_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
PMGD-CMPCSANTAFE_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CMPCLAJA_BL1_COGEN	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	**120**
CMPCLAJA_BL1+BL2_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CMPCLAJA_BL1+BL2+BL3_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CMPCPACIFICO_BL1_COGEN	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	**288**
CMPCPACIFICO_BL1+BL2_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CMPCPACIFICO_BL1+BL2+BL3_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
YUNGAY-1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
YUNGAY-1_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
YUNGAY-2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
YUNGAY-2_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
YUNGAY-3_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
YUNGAY-3_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
YUNGAY-4_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CHOLGUAN_BL1_COGEN	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	**96**
CHOLGUAN_BL1+BL2_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEWEN_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEWEN_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEWEN_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEWEN_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
NEWEN_PROPANO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
PETROPOWER_PET	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	**1560**
ESCUADRON_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CORONEL_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CORONEL_GN_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CORONEL_GNL_A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CORONEL_GNL_B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SANTAMARIA_CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
BOCAMINA-1_CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
BOCAMINA-2_CAR	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	176	175	175	**4201**
HORCONES_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ARAUCO_COGEN	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	**168**
LAUTARO-1_BL1_COGEN	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	14	13	22	22	22	22	22	**511**
LAUTARO-1_BL1+BL2_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LAUTARO-2_BL1_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LAUTARO-2_BL1+BL2_COGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
VALDIVIA_BL1_COGEN_EUCA	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	**192**
VALDIVIA_BL1_COGEN_PINO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
VALDIVIA_BL1+BL2_COGEN_EUCA	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	**192**
VALDIVIA_BL1+BL2_COGEN_PINO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
VALDIVIA_BL1+BL2+BL3_COGEN_EUCA	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	**120**
VALDIVIA_BL1+BL2+BL3_COGEN_PINO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
VALDIVIA_BL1+BL2+BL3+BL4_COGEN_EUCA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
VALDIVIA_BL1+BL2+BL3+BL4_COGEN_PINO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ANTILHUE-1_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ANTILHUE-2_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CALLECALLE_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CHUYACA_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TRAPEN_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DEGAN_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DEGAN2-NAVE4_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DEGAN2-NAVE5_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
TRINCAO_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CHILOE_DIESEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

Embalses y Reguladas	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total
Total	2368	2107	1994	1856	1792	1845	1770	1681	1389	1492	1610	1587	1562	1424	1410	1349	1327	1252	1227	1583	2125	2551	2394	2142	41.835
RAPEL-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
RAPEL-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
RAPEL-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
RAPEL-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
RAPEL-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

CIPRESES-1	0	0	0	0	0	0	28	19	7	26	28	9	0	25	11	11	7	7	7	18	9	9	1	9	**230**
CIPRESES-2	20	20	20	20	20	20	20	27	21	20	20	20	20	20	20	20	20	20	20	28	20	20	28	20	**504**
CIPRESES-3	10	10	10	10	10	10	5	7	7	7	5	24	16	8	0	0	4	4	4	7	24	24	24	24	**252**
OJOSDEAGUA	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	**110**
LAMINA	37	37	37	37	37	37	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	**716**
ISLA	63	63	63	63	63	63	69	69	64	69	69	69	64	69	63	63	63	63	63	69	69	69	69	69	**1579**
CURILLINQUE	76	76	76	76	76	76	83	83	76	83	83	83	77	83	75	75	75	75	75	83	83	83	83	83	**1896**
LOMAALTA	32	32	32	32	32	32	35	35	32	35	35	35	33	35	32	32	32	32	32	35	35	35	35	35	**802**
LOSHIERROS	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	**96**
LOSHIERROS-2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**24**
PEHUENCHE-1	154	154	154	180	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	216	216	168	216	**3473**
PEHUENCHE-2	216	216	216	190	175	169	126	0	0	0	0	126	126	126	0	0	126	126	0	0	161	216	216	181	**2711**
COLBUN-1	159	0	0	0	100	100	100	100	100	100	0	0	0	0	100	100	0	0	0	100	182	220	182	182	**1827**
COLBUN-2	182	141	0	0	0	0	0	0	100	100	100	100	0	0	100	100	0	0	0	0	0	229	228	0	**1379**
MACHICURA-1	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	**576**
MACHICURA-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CHIBURGO	0	17	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	0	0	0	0	0	**323**
SANCLEMENTE	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	**96**
SANIGNACIO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ELTORO-1	84	44	44	84	84	84	84	84	84	26	84	26	84	84	76	84	35	42	58	26	84	44	84	84	**1600**
ELTORO-2	76	84	84	84	84	84	84	84	26	84	84	84	84	56	26	26	60	52	26	84	76	84	46	44	**1607**
ELTORO-3	84	84	84	44	84	84	84	84	60	63	84	63	84	84	26	60	76	76	26	84	84	84	84	84	**1759**
ELTORO-4	53	85	85	85	45	45	45	45	26	85	45	85	45	26	77	26	26	26	26	68	53	85	83	85	**1347**
ABANICO	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	**821**
ANTUCO-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ANTUCO-2	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	**3840**
RUCUE	89	114	80	114	80	114	80	114	69	69	114	69	114	69	69	69	69	69	69	71	114	80	114	80	**2095**
QUILLECO	38	49	35	49	35	49	35	49	30	30	49	30	49	30	30	30	30	30	30	30	49	35	49	35	**901**
LAJA1	0	7	0	7	0	7	0	7	0	0	7	0	7	0	0	0	0	0	0	0	7	0	7	0	**54**
RALCO-1	187	232	227	116	122	90	122	90	0	0	90	90	90	0	0	0	0	0	0	90	91	212	209	212	**2268**
RALCO-2	230	93	214	100	90	122	90	90	0	0	0	0	0	0	0	0	0	0	90	90	197	208	147	173	**1933**
PALMUCHO	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	**720**
PANGUE-1	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	114	81	80	80	**1955**
PANGUE-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ANGOSTURA-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
ANGOSTURA-2	74	74	0	74	0	0	0	74	74	74	74	0	0	74	74	0	74	0	74	74	0	74	0	0	**962**
ANGOSTURA-3	0	0	39	0	39	39	39	0	0	0	0	39	39	0	0	39	24	39	24	24	39	24	39	39	**520**
CANUTILLAR-1	86	65	68	63	63	68	61	59	41	50	67	55	59	63	61	44	40	40	40	59	63	63	63	51	**1388**
CANUTILLAR-2	75	68	68	68	68	68	68	48	59	59	59	68	59	59	59	59	56	41	52	48	68	68	68	68	**1471**

ANEXO N°2

Detalle de la generación real del día 14 de diciembre de 2019

.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	TOT.DIA	DMAX.	DMED.
																									MWh	MWh/h	MWh/h
CHAPIQUINA	8,0	8,0	8,0	6,4	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	6,5	8,0	8,0	8,0	8,0	128,9	8,0	5,4
ELTORON2	0,0	0,0	0,1	0,4	0,4	1,0	1,0	0,7	0,0	0,0	0,0	0,7	0,9	0,9	0,9	0,0	0,6	0,9	0,9	0,9	1,0	1,0	1,0	1,0	14,0	1,0	0,6
CAVANCHA	1,7	1,5	1,7	1,8	1,9	1,9	1,9	1,9	1,9	1,9	1,9	1,9	1,9	1,9	1,9	1,9	1,9	1,8	1,8	2,5	2,5	2,5	2,4	2,5	47,6	2,5	2,0
ALTOHOSPICIO	0,9	0,9	0,9	1,0	0,9	1,0	1,0	1,0	0,9	1,0	1,0	1,0	0,9	0,9	0,9	0,5	1,0	0,9	0,9	1,0	1,0	1,0	1,0	1,0	22,4	1,0	0,9
SANTAROSA	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,3	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	11,4	0,5	0,5
RIOHUASCO	2,2	2,3	2,3	2,3	2,2	2,3	2,3	2,3	2,3	2,2	2,3	2,2	2,2	2,2	2,2	2,3	2,2	2,2	2,2	2,2	2,2	2,2	2,3	2,2	53,8	2,3	2,2
PUCLARO	2,4	2,4	2,4	2,4	2,4	1,3	1,2	1,2	1,4	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	39,7	2,4	1,7
LOSMOLLES	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,0	3,0	3,0	3,0	3,0	3,0	5,0	9,0	9,0	9,0	49,0	9,0	2,0
LAPALOMA	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	10,7	0,4	0,4
CH-HORNITOS	35,8	34,3	32,7	31,3	30,7	30,3	29,6	28,3	26,7	25,9	25,6	25,3	25,2	24,9	22,1	21,1	20,9	20,9	20,9	20,9	20,8	20,7	19,5	17,7	612,1	35,8	25,5
JUNCALITO	0,8	0,7	0,7	0,7	0,6	0,6	0,6	0,6	0,6	0,5	0,5	0,5	0,5	0,5	0,5	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	12,5	0,8	0,5
ELTARTARO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
JUNCAL	20,7	19,8	18,3	17,5	17,0	16,6	16,5	16,2	15,6	14,9	14,5	14,4	14,3	14,1	14,1	12,8	12,1	12,4	12,2	12,0	12,4	12,2	12,0	11,7	354,3	20,7	14,8
BLANCO	34,1	32,0	30,2	28,6	27,2	25,8	24,7	23,8	22,9	22,1	21,2	20,6	20,2	19,9	19,8	19,8	19,8	20,1	20,1	20,0	20,2	20,6	20,4	19,8	553,9	34,1	23,1
LOSQUILOS	27,4	27,4	27,4	27,4	27,4	27,4	27,4	26,7	26,4	25,4	24,5	23,6	23,3	23,0	22,9	23,2	22,7	20,5	20,7	21,9	21,5	21,3	21,3	21,3	582,0	27,4	24,3
CHACABUQUITO	16,7	16,7	16,7	16,8	16,7	16,8	16,8	16,8	16,6	16,2	15,7	15,2	14,5	14,3	14,3	14,0	13,9	13,6	13,3	12,4	11,9	13,2	13,3	12,9	359,3	16,8	15,0
SAUCEANDES	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,7	0,7	0,6	0,5	0,6	0,5	0,0	0,0	0,0	0,0	0,3	0,6	0,6	0,5	0,5	0,5	0,5	11,2	0,7	0,5
CARENA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
MINI_ARRAYAN	0,7	0,7	0,6	0,6	0,6	0,5	0,5	0,5	0,5	0,5	0,5	0,4	0,4	0,4	0,4	0,4	0,3	0,0	0,0	0,0	0,0	0,0	0,3	0,4	9,4	0,7	0,4
ALFALFAL	139,0	123,4	146,7	141,9	125,9	114,6	117,1	117,1	115,9	105,0	100,2	100,2	96,2	94,9	89,0	85,1	85,1	85,1	87,1	88,0	89,4	77,3	76,8	79,5	2480,3	146,7	103,3
MAITENES	12,5	12,1	11,8	12,4	12,1	12,2	11,3	12,4	12,6	12,5	11,9	11,9	12,6	12,3	12,2	12,1	11,8	12,0	12,1	12,0	12,0	11,8	11,7	11,6	290,0	12,6	12,1
LABIFURCADA	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	4,7	0,2	0,2
CALIBORO	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	0,9	0,6	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	23,6	1,0	1,0
MALLARAUCO	3,3	3,3	3,3	3,3	3,3	3,2	3,2	3,2	3,2	3,1	2,7	2,6	2,3	2,2	1,9	1,9	2,2	2,7	3,1	3,2	3,2	3,3	3,3	3,3	70,3	3,3	2,9
COYA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CHACAYES	63,3	56,1	52,4	52,2	52,3	52,4	51,7	51,6	53,0	52,5	51,5	44,5	44,4	43,9	43,7	44,1	48,5	51,7	52,2	51,5	54,7	55,1	66,0	63,4	1252,7	66,0	52,2
SAUZAL	52,0	52,0	52,0	50,0	49,0	46,0	46,0	46,0	46,0	46,0	41,0	40,0	40,0	39,0	39,0	40,0	39,0	40,0	38,0	37,0	43,0	47,0	46,0	45,0	1059,0	52,0	44,1
SAUZAL 60 HZ	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SAUZALITO	10,0	10,0	10,0	10,0	10,0	9,0	9,0	9,0	9,0	9,0	8,0	8,0	8,0	8,0	8,0	8,0	8,0	8,0	8,0	7,0	8,0	9,0	9,0	9,0	209,0	10,0	8,7
LAHIGUERA	60,3	61,4	62,0	61,9	61,2	60,0	60,2	59,6	60,8	60,5	60,2	59,9	59,7	54,1	49,3	49,8	49,2	49,0	50,8	49,9	50,4	50,4	49,8	47,9	1338,3	62,0	55,8
LACONFLUENCIA	45,9	45,3	45,3	45,3	45,3	45,3	0,0	0,0	49,3	60,4	61,9	60,3	60,3	60,2	32,0	0,0	0,0	31,9	70,4	70,5	61,8	45,9	17,4	0,0	954,7	70,5	39,8
ELPASO	10,5	10,5	7,4	5,0	5,0	5,0	5,0	5,0	5,0	4,1	0,0	0,0	0,0	0,0	0,0	6,8	15,6	14,6	33,4	19,1	15,5	7,5	5,1	5,1	185,2	33,4	7,7
SANANDRES	21,7	10,6	10,6	14,3	21,8	22,1	22,1	22,1	22,1	21,1	21,2	21,2	21,2	21,2	21,2	21,2	21,2	21,2	31,1	35,6	35,9	24,4	13,7	10,8	509,6	35,9	21,2
CONVENTOVIEJO	3,3	3,3	3,3	3,3	3,3	3,3	3,3	3,3	3,3	3,3	3,3	3,3	3,3	3,3	3,3	3,3	3,3	3,3	3,3	3,3	3,3	3,3	3,3	3,3	79,8	3,3	3,3
LAMONTANA-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LAMONTANA-2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CUMPEO	2,7	2,6	2,6	2,6	2,6	2,7	2,7	2,6	2,6	2,6	2,6	2,6	2,6	2,7	2,7	2,6	2,4	2,6	2,1	2,5	2,6	2,6	2,7	2,6	62,6	2,7	2,6
ROBLERIA	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,2	0,0	0,0	0,0	2,0	2,4	2,5	2,4	2,4	2,4	2,4	2,5	2,4	2,4	2,4	2,4	2,4	50,2	2,5	2,1
LIRCAY	19,9	19,9	19,9	19,9	19,9	19,8	19,8	19,8	19,8	19,8	19,8	19,8	19,8	19,8	19,8	19,8	19,8	19,8	19,8	19,8	19,8	19,8	19,8	0,0	455,9	19,9	19,0
MARIPOSAS	3,1	3,1	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	73,6	3,1	3,1
PROVIDENCIA	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	40,8	1,7	1,7
MCHDOSAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PURISIMA	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	5,1	0,2	0,2
ELGALPON	0,4	0,4	0,4	0,4	0,5	0,5	0,5	0,4	0,4	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,4	0,4	0,4	0,4	10,8	0,5	0,4
RIOCOLORADO	6,6	6,8	6,8	7,1	7,4	7,6	7,7	7,5	7,3	7,0	6,9	6,8	6,6	6,6	6,5	6,3	6,0	6,3	6,3	6,6	6,7	6,6	6,7	6,7	163,4	7,7	6,8
ITATA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ELDIUTO	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	2,9	2,9	2,9	2,9	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	71,0	3,0	3,0
BUREO	0,0	0,0	0,0	0,0	0,0	0,5	0,6	0,7	0,7	0,7	0,7	0,7	0,6	0,6	0,4	0,6	0,8	0,8	0,8	0,8	0,6	0,6	0,3	0,0	11,4	0,8	0,5
MUNILQUE-1	0,0	0,0	0,0	0,0	0,3	0,0	0,3	0,0	0,3	0,0	0,2	0,0	0,2	0,0	0,2	0,0	0,0	0,0	0,2	0,0	0,3	0,0	0,2	0,0	2,2	0,3	0,1
MUNILQUE-2	0,4	0,4	0,4	0,4	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,2	0,4	10,9	0,5	0,5
BOQUIAMARGO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ELMIRADOR	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	9,8	0,4	0,4
LLEUQUEREO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PEUCHEN	30,1	30,0	29,9	26,9	11,2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	17,2	49,2	56,5	56,4	56,4	48,2	411,9	56,5	17,2
MAMPIL	27,1	22,2	22,1	18,8	17,4	16,7	7,8	0,0	0,0	0,0	2,1	10,4	0,0	0,0	0,0	0,0	0,0	7,9	4,9	0,0	23,2	34,3	30,8	30,6	276,0	34,3	11,5
LOSPADRES	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	3,9	0,2	0,2
QUILLAILEO	0,5	0,5	0,5	0,5	0,5	0,5	0,4	0,4	0,2	0,4	0,5	0,5	0,5	0,5	0,5	0,5	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	10,5	0,5	0,4
MULCHEN	0,0	0,0	0,1	0,2	0,0	0,0	0,0	0,2	0,2	0,0	0,0	0,0	0,2	0,1	0,0	0,0	0,0	0,2	0,1	0,0	0,0	0,0	0,2	0,1	1,5	0,2	0,1
ALTO_LA_VINA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
RIOTRUENO	0,5	1,3	1,3	0,7	0,9	1,2	1,2	0,5	1,2	1,3	0,7	1,0	1,2	1,3	0,5	1,1	1,3	1,2	0,4	1,3	1,2	0,9	0,7	1,3	24,2	1,3	1,0
RENAICO	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	4,9	5,0	5,0	4,9	4,9	4,9	4,9	4,9	4,9	4,5	5,2	5,0	4,9	5,0	5,0	5,0	118,9	5,2	5,0
ALTORENAICO	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	0,9	1,1	1,0	1,0	1,0	1,0	1,0	24,0	1,1	1,0
RIOPICOIQUEN	5,1	5,1	5,1	5,1	5,1	5,1	5,1	5,1	5,1	5,1	5,1	5,1	5,1	5,1	5,0	5,1	5,1	5,1	5,1	5,2	5,2	5,2	5,1	5,1	122,5	5,2	5,1
ELMANZANO	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,7	65,0	2,7	2,7
TRUFUL-TRUFUL	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	18,3	0,8	0,8
MOLINERAVILLARRICA	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,2	0,1	0,2	0,2	0,3	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	5,7	0,4	0,2
CARILAFQUEN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
MALALCAHUELLO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TRAILELFU	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,3	0,3	8,6	0,4	0,4
ALLIPEN	2,5	2,4	2,5	2,4	2,4	2,5	2,4	2,4	2,5	2,5	2,5	2,5	2,6	2,6	2,5	2,5	2,6	2,6	2,5	2,5	2,5	2,5	2,5	2,5	59,9	2,6	2,5
DONGUIL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
MAISAN	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	4,1	0,2	0,2
ELCANELO	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	52,4	2,2	2,2
ELAGRIO	0,9	0,8	0,9	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	19,7	0,9	0,8
PILMAIQUEN	30,7	30,7	30,7	30,5	30,3	29,8	29,9	29,9	29,9	29,9	29,9	30,0	30,0	30,3	31,3	31,3	31,2	31,2	31,9	33,3	33,2	33,3	33,2	33,2	745,3	33,3	31,1
RININAHUE	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9	21,9	0,9	0,9
DOSVALLES	2,7	2,7	2,6	2,6	2,4	2,4	2,3	2,3	2,3	2,3	2,5	2,5	2,5	2,4	2,4	2,4	2,7	2,5	2,5	2,4	2,4	2,3	2,2	2,2	58,5	2,7	2,4
PALACIOS	0,9	0,8	0,8	0,8	0,8	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,6	0,5	0,9	0,8	0,8	0,8	0,7	0,7	0,6	17,5	0,9	0,7
CORRENTOSO	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	0,9	1,0	0,9	0,9	0,9	0,9	24,3	1,1	1,0
PALMAR	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,6	2,5	2,6	2,6	2,6	2,3	2,3	2,3	2,5	2,6	2,6	2,7	2,7	2,7	2,8	2,8	62,5	2,8	2,6
PULELFU	4,7	4,9	4,8	4,7	4,7	4,6	4,6	4,6	4,6	4,4	4,3	4,3	4,3	4,4	4,5	4,5	4,4	4,3	4,4	4,5	4,5	4,5	4,5	4,5	108,5	4,9	4,5
MARIAELENA	0,1	0,1	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,0	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,1	0,1	0,8	0,1	0,0
LOSCOLONOS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CHANLEUFU	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,0	0,7	0,0	0,0	0,0	0,0	0,0	0,0	1,2	1,1	0,0	0,0	4,0	1,2	0,2
CAPULLO	0,7	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,7	0,7	0,0
NALCAS	2,8	2,8	2,8	2,8	2,8	2,8	2,8	2,8	2,8	2,8	2,9	2,9	2,7	2,8	2,8	2,8	2,8	2,8	2,8	2,8	2,8	2,8	2,8	2,8	67,0	2,9	2,8
CALLAO	0,6	0,6	0,5	0,5	0,5	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	10,0	0,6	0,4
HIDROBONITO-MC1	3,4	3,3	3,2	3,2	3,1	3,1	3,1	3,0	3,0	3,0	3,0	3,0	2,9	2,8	2,8	2,8	2,8	2,8	2,9	2,9	2,9	2,9	3,0	3,0	71,9	3,4	3,0
HIDROBONITO-MC2	2,2	2,1	2,1	2,1	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	1,9	1,9	1,9	1,9	1,9	1,9	1,9	1,9	1,9	1,9	47,6	2,2	2,0
RUCATAYO	34,8	33,1	33,1	33,1	33,1	33,1	33,1	33,1	33,1	33,1	33,1	33,1	33,1	33,1	33,7	35,0	34,9	34,1	34,4	36,9	36,7	36,2	36,6	37,1	820,4	37,1	34,2
ENSENADA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LAARENA	1,9	1,9	1,8	1,8	1,8	1,8	1,8	1,8	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,6	1,6	1,6	1,6	1,6	1,6	1,6	1,5	1,5	40,7	1,9	1,7
ELCOLORADO	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,3	0,4	0,4	0,4	0,4	0,4	0,4	0,4	10,3	0,4	0,4
DONGO	2,2	2,1	2,0	1,9	1,8	1,7	1,6	1,5	1,5	1,4	1,4	1,4	1,3	1,3	1,3	1,2	1,2	1,2	1,2	1,1	1,1	1,1	1,0	1,0	34,4	2,2	1,4
COLLIL	2,8	2,6	2,5	2,3	2,2	2,1	2,1	2,0	2,1	1,8	1,8	1,8	1,7	1,7	1,6	1,6	1,6	1,5	1,5	1,4	1,4	1,4	1,3	1,3	44,1	2,8	1,8
LLAUQUEREO	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	4,8	0,2	0,2
QUELTEHUES	34,7	34,8	34,9	37,4	37,9	37,9	39,7	40,5	40,4	40,4	40,3	40,2	40,1	40,0	39,7	36,7	33,8	33,6	33,6	33,6	33,5	33,6	33,6	33,5	884,4	40,5	36,8
VOLCAN	10,5	11,4	11,4	11,4	11,4	10,6	10,1	10,2	9,5	9,8	9,7	9,6	8,9	9,2	9,0	9,0	6,8	9,2	8,7	9,0	9,3	8,2	8,9	9,1	231,0	11,4	9,6
GUAYACAN	6,1	6,1	6,2	7,1	9,0	6,9	6,3	8,1	8,2	7,7	7,7	7,7	7,6	7,6	7,3	7,3	7,3	7,6	8,9	7,2	6,3	6,4	6,3	6,3	173,3	9,0	7,2
FLORIDA-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
FLORIDA-2	3,4	4,7	8,4	8,9	9,2	7,5	4,9	6,4	6,7	5,8	5,2	4,6	4,0	4,0	4,0	2,3	2,7	3,0	1,6	3,3	4,5	5,7	5,4	3,7	119,9	9,2	5,0
FLORIDA-3	2,3	2,3	2,3	2,3	2,3	2,3	2,3	2,3	2,3	2,3	2,3	2,3	2,3	2,3	2,3	2,3	2,3	2,3	2,3	2,3	2,3	2,3	2,3	2,3	55,2	2,3	2,3
PUNTILLA	13,3	15,3	15,4	16,4	16,0	14,5	15,3	16,7	14,1	12,3	11,7	12,4	12,6	12,2	12,0	11,2	11,7	11,3	9,9	9,5	10,3	10,5	8,9	8,6	302,1	16,7	12,6
EYZAGUIRRE	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	15,3	0,6	0,6
LASVERTIENTES	1,8	1,8	1,8	1,8	1,7	1,8	1,8	1,8	1,8	1,8	1,8	1,7	1,8	1,7	1,7	1,8	1,7	1,7	1,7	1,8	1,8	1,8	1,8	1,8	42,1	1,8	1,8
ELLLANO	0,2	0,3	0,3	0,4	0,4	0,4	0,4	0,4	0,3	0,3	0,3	0,3	0,3	0,3	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	7,2	0,4	0,3
ELRINCON	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	6,0	0,3	0,3
LOSMORROS	0,6	0,6	0,9	1,0	1,1	1,1	0,8	0,8	1,0	1,0	0,7	0,4	0,6	0,9	1,0	0,9	0,8	0,8	0,9	0,7	0,5	0,5	0,7	0,5	18,7	1,1	0,8
LOSBAJOS	3,2	4,8	5,1	5,2	5,3	5,3	4,9	5,2	5,3	4,8	4,5	4,3	4,7	4,7	4,3	4,0	4,0	4,2	3,8	3,3	3,2	3,8	3,6	3,0	104,5	5,3	4,4
AUXDELMAIPO	2,2	3,0	3,5	3,6	3,8	3,8	3,5	3,5	3,6	3,4	3,2	3,2	3,1	3,5	3,1	2,7	2,9	2,9	2,8	2,5	2,2	2,4	2,7	2,3	73,2	3,8	3,0
PULLINQUE	5,9	5,2	5,2	5,2	5,2	6,0	15,1	15,1	15,1	20,1	20,3	20,3	25,1	25,1	21,2	20,0	20,1	20,2	20,2	20,2	20,2	12,1	12,2	11,5	366,3	25,1	15,3
RECA	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	9,4	0,4	0,4
PANGUIPULLI	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
DONAHILDA	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	11,5	0,5	0,5
MUCHI	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	1,9	0,1	0,1
LASFLORES	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	29,9	1,3	1,2
PEHUI	0,2	0,2	0,2	0,2	0,2	0,1	0,1	0,1	0,1	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,1	0,1	0,1	0,1	0,1	0,2	0,2	0,2	4,0	0,2	0,2
LICAN	6,6	1,9	0,0	0,0	0,0	0,0	0,0	0,0	0,0	4,4	6,9	6,9	7,0	7,0	6,7	6,9	6,8	7,2	14,9	16,3	16,3	16,0	16,2	12,7	160,6	16,3	6,7
CUMBRES	10,1	9,8	10,0	9,9	9,8	9,8	9,7	9,6	9,5	9,5	9,5	9,4	9,4	9,3	9,4	9,5	9,6	9,7	9,8	9,8	9,9	9,8	9,8	9,8	232,2	10,1	9,7
SANTAISABEL	0,6	0,5	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	13,7	0,6	0,6
LOSCORRALES-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LOSCORRALES-2	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	14,8	0,6	0,6

MSA-1	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	9,9	0,4	0,4
PICHILONCO	0,2	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,2	0,2	0,2	0,2	6,6	0,3	0,3
DONWALTERIO	2,6	2,6	2,6	2,6	2,6	2,7	2,7	2,8	2,8	2,8	2,8	2,8	2,8	2,8	2,7	2,7	2,7	2,7	2,6	2,6	2,6	2,5	2,5	2,5	64,1	2,8	2,7
MELO	2,0	2,0	1,9	1,9	2,0	2,0	2,0	2,0	1,9	1,8	1,9	1,8	1,5	2,0	1,9	1,9	1,8	1,8	1,8	1,9	1,9	1,9	2,0	2,0	45,5	2,0	1,9
CONTRA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CURILEUFU	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ELARRAYAN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ANCOA	22,0	22,5	22,0	21,8	21,9	22,0	22,0	24,7	20,4	22,9	21,2	23,3	21,8	20,2	21,9	22,4	25,2	19,7	20,7	21,5	22,0	21,9	22,3	22,0	528,2	25,2	22,0
LAVINA	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	12,3	0,5	0,5
SANTAELENA	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	12,2	0,5	0,5
TRANQUIL	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,6	0,7	0,7	0,6	0,7	0,6	0,6	0,6	0,6	0,3	0,8	0,1	0,0	0,0	0,1	0,0	0,0	11,9	0,8	0,5
ELTORO	256,0	256,0	256,0	256,0	256,0	256,0	260,0	248,0	264,0	260,0	256,0	252,0	256,0	244,0	243,0	250,0	244,0	256,0	268,0	252,0	256,0	260,0	252,0	256,0	6113,0	268,0	254,7
ANTUCO	136,0	134,0	134,0	133,0	133,0	134,0	134,0	132,0	135,0	135,0	134,0	133,0	134,0	131,0	130,0	131,0	129,0	136,0	138,0	131,0	134,0	135,0	132,0	133,0	3201,0	138,0	133,4
ABANICO	33,0	33,0	33,0	33,0	33,0	33,0	33,0	33,0	34,0	33,0	33,0	33,0	33,0	34,0	33,0	33,0	33,0	33,0	34,0	33,0	33,0	33,0	34,0	34,0	797,0	34,0	33,2
RUCUE	60,0	62,0	67,0	66,0	63,0	64,0	63,0	66,0	73,0	76,0	76,0	74,0	69,0	63,0	69,0	70,0	69,0	70,0	71,0	68,0	68,0	63,0	66,0	69,0	1625,0	76,0	67,7
QUILLECO	24,0	27,0	33,0	26,0	26,0	27,0	26,0	26,0	27,0	30,0	31,0	31,0	31,0	29,0	28,0	27,0	28,0	28,0	28,0	31,0	30,0	29,0	26,0	24,0	673,0	33,0	28,0
LAJA1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
RAPEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CANUTILLAR	42,0	42,0	42,0	42,0	8,0	0,0	0,0	0,0	0,0	40,0	70,0	120,0	103,0	102,0	101,0	80,0	42,0	52,0	55,0	45,0	0,0	6,0	42,0	8,0	1042,0	120,0	43,4
CIPRESES	28,0	28,0	28,0	28,0	28,0	28,0	27,0	25,0	26,0	26,0	25,0	30,0	32,0	32,0	31,0	32,0	30,0	32,0	34,0	32,0	32,0	33,0	32,0	32,0	711,0	34,0	29,6
OJOSDEAGUA	4,6	4,6	4,6	4,6	4,6	4,6	4,6	4,7	4,7	4,7	4,7	4,7	4,7	4,7	4,7	4,7	4,7	4,7	4,6	4,6	4,6	4,6	4,6	4,6	111,6	4,7	4,7
LAMINA	21,8	22,7	22,4	22,4	22,4	22,6	23,3	23,0	22,9	22,7	22,7	22,6	22,5	22,1	22,0	22,2	22,2	22,3	22,3	23,1	23,5	23,3	23,3	23,7	544,0	23,7	22,7
ISLA	61,0	62,0	62,0	62,0	62,0	62,0	63,0	62,0	62,0	62,0	61,0	63,0	63,0	63,0	62,0	62,0	62,0	63,0	63,0	64,0	64,0	64,0	64,0	64,0	1502,0	64,0	62,6
CURILLINQUE	74,0	74,0	76,0	75,0	74,0	74,0	76,0	75,0	75,0	74,0	74,0	74,0	76,0	77,0	75,0	75,0	75,0	76,0	76,0	77,0	77,0	79,0	77,0	76,0	1811,0	79,0	75,5
LOMAALTA	31,0	31,0	32,0	32,0	32,0	31,0	32,0	33,0	32,0	32,0	32,0	32,0	32,0	33,0	33,0	32,0	32,0	32,0	33,0	34,0	33,0	34,0	34,0	33,0	777,0	34,0	32,4
LOSHIERROS	4,2	4,2	4,2	4,2	4,2	4,3	4,6	4,4	4,8	4,7	4,6	4,5	4,5	4,4	4,3	4,5	4,3	4,7	4,9	4,7	4,8	4,9	4,7	4,8	108,4	4,9	4,5
LOSHIERROS-2	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,9	0,8	0,9	0,9	0,9	0,8	0,8	0,8	0,8	0,9	0,9	0,8	0,9	0,9	0,9	0,9	19,8	0,9	0,8
COLBUN	366,0	174,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	83,0	267,0	346,0	457,0	465,0	381,0	2539,0	465,0	105,8
MACHICURA	24,0	24,0	24,0	24,0	24,0	24,0	24,0	24,0	24,0	24,0	24,0	24,0	24,0	24,0	24,0	24,0	24,0	24,0	24,0	24,0	24,0	24,0	24,0	24,0	576,0	24,0	24,0
CHIBURGO	0,0	17,0	18,0	18,0	18,0	18,0	18,0	18,0	18,0	18,0	18,0	18,0	18,0	18,0	18,0	18,0	18,0	18,0	18,0	0,0	0,0	0,0	0,0	0,0	323,0	18,0	13,5
SANCLEMENTE	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	91,2	3,8	3,8
SANIGNACIO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PEHUENCHE	183,0	166,0	156,0	146,0	155,0	208,0	186,0	150,0	62,0	205,0	182,0	138,0	145,0	12,0	0,0	0,0	0,0	0,0	0,0	0,0	13,0	182,0	173,0	70,0	2532,0	208,0	105,5
RALCO	429,0	356,0	319,0	216,0	156,0	257,0	217,0	154,0	257,0	257,0	246,0	244,0	141,0	114,0	123,0	155,0	121,0	0,0	0,0	41,0	137,0	210,0	192,0	165,0	4507,0	429,0	187,8
PALMUCHO	31,0	31,0	31,0	31,0	31,0	31,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0	726,0	31,0	30,3
PANGUE	151,0	151,0	152,0	114,0	101,0	101,0	144,0	142,0	154,0	200,0	199,0	112,0	100,0	95,0	92,0	107,0	103,0	107,0	148,0	131,0	87,0	120,0	110,0	91,0	3012,0	200,0	125,5
ANGOSTURA	167,0	167,0	154,0	83,0	83,0	84,0	84,0	81,0	121,0	142,0	96,0	84,0	84,0	82,0	82,0	53,0	47,0	47,0	48,0	47,0	58,0	132,0	130,0	105,0	2261,0	167,0	94,2
PE-SIERRAGORDA	0,6	0,2	0,0	0,2	0,7	9,5	8,6	9,5	12,7	0,0	0,2	5,4	21,1	44,9	64,8	84,6	94,1	109,8	108,4	99,5	80,2	27,1	5,2	0,2	787,7	109,8	32,8
PE-VALLEDELOSVIENTOS	13,7	5,7	0,3	0,0	0,0	0,1	0,7	0,8	0,0	0,0	0,0	0,7	10,3	50,9	80,4	83,4	84,9	83,4	83,2	83,9	84,4	70,6	31,5	12,7	781,5	84,9	32,6
PE-TALTAL	38,8	17,3	26,7	32,0	46,5	49,3	65,1	81,0	60,1	13,9	2,7	3,3	8,5	42,3	64,0	54,8	44,8	47,2	43,4	30,0	20,9	2,2	3,9	22,4	821,0	81,0	34,2
PE-SARCO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PE-SANJUAN	37,9	27,7	15,2	5,0	0,1	0,0	14,1	77,2	124,4	46,3	9,2	0,0	0,0	10,1	39,9	78,0	68,2	74,9	75,0	136,2	189,9	187,8	184,3	182,0	1583,4	189,9	66,0
PE-CABOLEONES	15,1	8,4	5,2	0,2	0,0	0,0	11,9	41,0	92,4	63,2	26,3	2,7	0,2	5,4	26,5	47,8	41,9	62,0	105,7	113,8	113,9	113,8	113,5	110,8	1121,7	113,9	46,7
PE-PUNTACOLORADA	0,0	0,0	0,2	0,4	0,2	0,0	0,0	0,0	0,0	2,8	6,9	10,5	9,4	9,5	9,7	10,3	6,4	3,1	4,2	9,5	8,8	2,6	0,0	0,0	94,5	10,5	3,9
PE-ELARRAYAN	68,4	82,3	69,6	61,6	93,7	63,5	40,9	12,2	2,3	0,2	0,0	0,0	1,2	6,5	23,4	42,0	56,4	58,9	56,7	85,7	109,7	107,6	107,4	107,3	1257,5	109,7	52,4
PE-LOSCURUROS	14,4	25,6	14,3	22,1	16,3	6,1	16,6	2,1	0,0	0,0	0,8	2,4	1,8	12,2	32,1	55,0	58,2	56,7	55,0	84,4	106,7	103,6	98,2	97,2	881,8	106,7	36,7
PE-TALINAYORIENTE	21,9	24,5	10,1	10,4	18,0	13,8	2,0	0,8	2,6	7,7	0,4	1,0	3,8	14,5	40,0	49,2	32,8	31,6	29,9	65,4	87,1	78,2	72,3	65,0	682,7	87,1	28,4
PE-TALINAYPONIENTE	54,4	52,0	50,9	49,2	53,2	48,5	32,3	12,8	0,5	0,2	0,0	0,3	0,4	6,9	19,8	30,4	31,5	30,8	30,0	47,6	58,8	57,3	55,0	57,9	780,6	58,8	32,5
PE-PUNTASIERRA	72,5	70,1	74,0	69,9	64,8	47,3	52,5	14,2	1,3	0,0	0,7	1,8	2,0	8,7	22,8	43,4	42,0	42,2	42,0	61,9	81,6	81,3	50,8	60,1	1007,9	81,6	42,0
PE-MONTEREDONDO	12,6	16,9	20,0	18,7	13,5	8,0	11,8	1,3	0,0	0,0	0,0	0,3	0,2	2,7	8,3	18,1	18,4	18,8	18,7	30,8	41,4	38,0	36,5	36,7	371,7	41,4	15,5
PE-CANELA	6,7	3,6	3,1	7,1	3,5	2,8	2,4	1,0	0,0	0,0	0,0	0,0	0,2	0,7	1,4	6,3	8,7	12,1	9,3	12,1	9,6	7,7	6,4	6,5	110,9	12,1	4,6
PE-CANELA-2	27,1	11,2	12,2	36,5	23,3	21,3	15,5	7,9	6,5	0,1	0,0	0,8	1,5	2,2	5,5	19,9	20,8	20,7	20,7	37,2	50,4	42,6	36,8	36,5	456,8	50,4	19,0
PE-TOTORAL	24,8	15,2	15,5	23,4	20,1	20,2	13,3	6,9	0,3	0,0	0,0	0,1	1,7	2,5	5,5	16,7	16,0	18,1	18,0	36,5	32,6	33,5	33,3	35,7	389,9	36,5	16,2
PE-PUNTAPALMERAS	27,4	19,2	14,4	27,4	26,4	19,1	28,6	11,3	1,5	0,0	0,0	0,1	0,5	2,2	5,8	22,0	27,7	28,2	28,2	36,0	40,1	36,9	35,8	35,7	474,5	40,1	19,8
PE-UCUQUER	1,9	3,7	4,2	3,5	3,3	3,7	2,9	3,1	2,2	2,9	0,5	0,4	0,2	0,2	0,3	1,7	1,3	1,6	0,8	2,3	4,9	7,1	2,6	2,9	58,0	7,1	2,4
PE-UCUQUER-2	4,2	6,2	5,8	5,0	5,6	5,9	4,5	4,2	3,1	3,4	0,4	0,3	0,1	0,0	0,3	1,1	2,9	2,8	1,7	2,9	4,8	9,0	6,7	5,4	86,1	9,0	3,6
PE-LASPENAS	1,3	5,0	3,6	3,5	3,1	3,6	5,9	3,8	4,5	3,6	4,8	5,3	5,2	6,9	7,6	7,9	8,1	8,3	4,8	8,0	8,3	8,4	8,4	8,4	137,9	8,4	5,7
PE-CUEL	2,4	6,3	6,9	5,8	7,2	5,7	3,8	5,2	6,4	7,6	3,9	2,5	1,2	1,9	1,4	1,9	2,8	4,7	13,0	22,8	26,2	24,0	24,1	22,7	210,0	26,2	8,8
PE-LAESPERANZA	1,6	2,4	3,2	2,7	3,0	2,7	2,7	1,8	3,4	3,7	2,4	2,1	1,3	0,9	0,6	1,1	2,5	3,5	4,6	7,3	7,3	7,7	8,6	8,5	85,7	8,6	3,6
PE-LOSBUENOSAIRES	2,2	4,5	4,5	4,8	4,9	2,8	2,6	4,1	6,8	7,6	3,7	2,0	1,1	1,7	1,3	2,4	3,0	6,0	12,1	19,7	21,2	18,8	21,6	20,3	179,6	21,6	7,5
PE-LEBU	0,0	0,0	0,0	0,3	0,4	0,5	0,7	0,9	0,4	0,3	0,8	1,5	1,4	0,7	0,7	0,8	1,1	2,3	0,5	0,5	0,5	0,7	0,5	0,4	15,9	2,3	0,7
PE-LEBU-3	0,0	0,0	0,1	0,3	0,4	0,4	0,4	0,4	0,2	0,2	0,4	0,7	0,7	0,9	0,3	0,3	0,6	0,6	0,0	0,3	0,4	0,8	0,6	0,5	9,5	0,9	0,4
PE-RAKI	0,0	0,1	0,4	0,7	1,2	2,2	3,6	4,0	1,8	1,5	1,8	3,5	4,1	4,3	4,4	4,8	4,7	5,3	2,7	2,7	2,2	2,0	2,7	2,5	62,9	5,3	2,6
PE-HUAJACHE	0,0	0,1	0,4	0,6	0,9	1,7	2,9	3,5	1,4	1,1	1,5	2,6	3,3	3,3	3,2	3,3	3,6	3,7	2,2	2,0	1,5	1,6	2,2	2,0	48,5	3,7	2,0
PE-ELNOGAL	0,2	0,7	0,9	0,8	1,2	1,5	0,7	0,9	0,6	0,8	0,6	0,4	0,2	0,3	0,2	0,3	0,5	0,7	1,7	2,7	3,2	2,9	2,8	2,4	27,3	3,2	1,1
PE-SANGABRIEL	46,5	40,4	48,8	57,6	69,1	66,6	55,2	48,8	58,5	68,1	49,7	36,5	32,7	24,5	26,8	24,9	41,4	69,4	97,4	158,5	161,7	174,3	174,0	154,3	1785,5	174,3	74,4
PE-RENAICO	11,9	14,3	21,3	21,0	25,9	30,9	26,8	22,3	32,1	35,0	24,9	18,2	18,0	13,6	10,3	13,2	26,3	30,9	49,9	72,3	66,0	60,0	66,8	69,6	781,4	72,3	32,6
PE-AURORA	45,5	39,7	27,5	23,8	17,4	10,0	3,8	0,2	0,0	0,0	0,0	0,0	0,0	0,1	1,3	7,9	9,3	6,2	15,5	29,0	37,6	20,3	3,9	2,6	301,6	45,5	12,6
PE-SANPEDRO	1,6	0,1	0,1	0,1	0,1	0,0	0,0	0,4	0,6	0,9	1,2	1,7	3,3	3,7	3,9	2,7	7,1	6,0	3,5	2,1	2,7	7,2	12,1	10,9	72,0	12,1	3,0
PE-SANPEDRO-2	5,9	1,0	0,4	1,1	1,8	0,0	0,1	1,2	2,1	2,9	2,4	3,1	5,2	6,1	8,0	5,6	11,4	12,4	5,8	3,8	4,7	11,0	20,1	16,6	132,7	20,1	5,5
PFV-ELAGUILA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,7	1,4	1,6	1,8	1,8	1,8	1,7	1,4	1,0	0,5	0,1	0,0	0,0	0,0	0,0	14,0	1,8	0,6
PFV-PAMPACAMARONES	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,5	2,9	3,9	4,0	4,3	4,4	4,4	4,4	4,3	4,3	4,0	2,5	1,1	0,0	0,0	0,0	0,0	45,1	4,4	1,9
PFV-POZOALMONTE-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PFV-POZOALMONTE-2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,7	5,4	6,2	6,4	6,5	6,8	6,9	6,9	6,9	6,5	6,2	5,6	2,1	0,0	0,0	0,0	0,0	74,0	6,9	3,1
PFV-POZOALMONTE-3	0,0	0,0	0,0	0,0	0,0	0,0	0,0	3,5	11,5	13,2	13,7	13,9	14,6	14,8	14,8	14,6	14,0	13,5	11,9	4,5	0,0	0,0	0,0	0,0	158,6	14,8	6,6
PFV-LOSPUQUIOS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PFV-PICA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PFV-LAHUAYCA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PFV-CALAMA-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,5	7,6	8,6	8,7	8,8	9,0	9,0	9,0	9,0	9,0	8,8	7,5	3,3	0,0	0,0	0,0	0,0	100,7	9,0	4,2
PFV-JAMA-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	9,4	23,5	27,4	28,2	28,7	29,2	30,0	30,1	29,8	29,6	28,5	24,8	9,4	0,1	0,0	0,0	0,0	328,7	30,1	13,7
PFV-JAMA-2	0,0	0,0	0,0	0,0	0,0	0,0	0,1	7,2	17,2	19,2	19,8	20,3	20,6	21,2	21,0	20,8	20,7	20,0	17,2	6,3	0,1	0,0	0,0	0,0	231,6	21,2	9,7
PFV-MARIAELENA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	10,9	42,1	50,8	52,3	56,1	57,0	58,3	58,1	57,6	57,0	54,5	46,3	15,6	0,1	0,0	0,0	0,0	616,7	58,3	25,7
PFV-FINISTERRAE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	19,8	79,2	107,3	115,5	116,7	117,8	118,2	117,4	115,3	115,2	112,7	97,2	33,2	0,1	0,0	0,0	0,0	1265,5	118,2	52,7
PFV-PUERTOSECO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,5	8,0	9,0	9,0	9,0	9,0	9,0	9,0	9,0	9,0	9,0	8,0	3,6	0,0	0,0	0,0	0,0	103,1	9,0	4,3
PFV-CERRODOMINADOR	0,0	0,0	0,0	0,0	0,0	0,0	0,0	20,5	76,6	91,8	94,6	95,6	95,5	94,9	94,2	93,9	94,7	92,8	79,9	28,5	0,3	0,0	0,0	0,0	1053,8	95,6	43,9
PFV-BOLERO-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	27,3	98,6	114,8	119,8	119,0	118,0	117,8	117,3	119,7	120,4	116,8	102,6	41,9	0,5	0,0	0,0	0,0	1334,4	120,4	55,6
PFV-URIBESOLAR	0,0	0,0	0,0	0,0	0,0	0,0	0,0	11,9	41,6	48,7	50,5	50,5	50,5	50,5	50,5	50,5	50,3	49,0	44,0	23,8	0,7	0,0	0,0	0,0	573,0	50,5	23,9
PFV-ANDES	0,0	0,0	0,0	0,0	0,0	0,0	0,0	5,1	16,9	19,6	19,6	20,0	19,8	20,2	20,1	20,1	20,2	19,5	16,7	6,5	0,0	0,0	0,0	0,0	224,3	20,2	9,3
PFV-HUATACONDO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	3,5	28,2	59,3	69,8	72,8	74,3	74,1	73,6	72,8	60,2	57,2	39,4	16,0	0,0	0,0	0,0	0,0	701,2	74,3	29,2
PFV-BELLAVISTA-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,0	0,0
PFV-LALACKAMA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	9,6	36,0	45,7	48,4	49,0	51,2	51,2	46,7	46,4	46,4	46,1	39,5	15,7	0,2	0,0	0,0	0,0	531,9	51,2	22,2
PFV-LALACKAMA2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	3,1	10,7	14,3	15,5	15,9	16,2	16,2	13,8	13,8	13,8	13,8	11,2	4,3	0,1	0,0	0,0	0,0	162,5	16,2	6,8
PFV-CONEJO	0,0	0,0	0,0	0,0	0,0	0,0	0,1	22,0	77,9	100,9	104,2	104,2	104,2	104,2	95,7	94,7	94,7	94,7	86,3	35,2	1,1	0,0	0,0	0,0	1120,1	104,2	46,7
PFV-PAMPASOLARNORTE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	6,8	37,5	54,8	63,3	68,4	69,3	68,9	58,0	58,2	60,0	60,0	58,5	26,6	1,1	0,0	0,0	0,0	691,4	69,3	28,8
PFV-JAVIERA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	9,1	49,0	58,7	61,1	61,7	61,7	61,8	61,9	61,8	61,4	59,5	52,8	23,5	0,8	0,0	0,0	0,0	684,9	61,9	28,5
PFV-CHANARES	0,0	0,0	0,0	0,0	0,0	0,0	0,0	5,0	20,3	30,5	32,1	33,0	33,0	31,8	31,0	30,4	30,6	30,2	23,4	8,8	0,3	0,0	0,0	0,0	340,2	33,0	14,2
PFV-SALVADOR	0,0	0,0	0,0	0,0	0,0	0,0	0,1	15,3	47,7	56,9	60,5	61,3	62,3	62,2	61,0	60,7	60,2	58,0	51,4	27,1	1,2	0,0	0,0	0,0	685,9	62,3	28,6
PFV-PILARLOSAMARILLOS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PFV-DIEGODEALMAGRO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,0	10,9	18,2	23,1	26,7	29,0	29,3	28,5	26,9	23,8	19,5	13,4	4,7	0,2	0,0	0,0	0,0	256,1	29,3	10,7
PFV-DAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PFV-CARRERAPINTO	0,0	0,0	0,0	0,0	0,0	0,0	0,1	16,2	58,1	77,5	82,7	83,9	84,6	84,2	82,7	81,8	80,8	78,3	63,6	25,5	0,9	0,0	0,0	0,0	900,7	84,6	37,5
PFV-LUZDELNORTE	0,0	0,0	0,0	0,0	0,0	0,0	0,2	39,7	104,4	123,9	131,9	135,3	135,9	135,5	134,0	133,5	131,6	126,7	109,9	53,8	2,8	0,0	0,0	0,0	1499,0	135,9	62,5
PFV-LLANODELLAMPOS	0,0	0,0	0,0	0,0	0,0	0,0	0,1	22,3	68,8	82,6	86,5	86,9	87,6	87,7	87,3	86,2	84,4	81,2	70,0	35,9	0,8	0,0	0,0	0,0	968,3	87,7	40,3
PFV-SANANDRES	0,0	0,0	0,0	0,0	0,0	0,0	0,0	6,2	23,8	37,6	40,5	41,4	41,6	42,1	41,7	41,2	41,0	39,1	32,9	13,9	0,6	0,0	0,0	0,0	443,4	42,1	18,5
PFV-PILOTOCARDONES	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,1	0,0	0,0	0,0	0,0	0,0	1,9	0,2	0,1
PFV-ESPERANZA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PFV-LASTERRAZAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PFV-LOSLOROS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,6	9,9	21,9	31,7	38,6	42,4	43,7	42,2	38,1	31,7	22,3	10,2	1,8	0,1	0,0	0,0	0,0	336,2	43,7	14,0
PFV-HORNITOS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,0	0,1	0,0
PFV-VALLESOLARESTE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,6	2,4	5,4	9,0	9,0	9,0	9,0	9,0	9,0	9,0	8,9	7,6	2,8	0,0	0,0	0,0	0,0	91,5	9,0	3,8
PFV-VALLESOLAROESTE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,2	2,3	5,2	8,9	9,0	9,0	9,0	9,0	9,0	9,0	9,0	7,9	2,6	0,0	0,0	0,0	0,0	91,1	9,0	3,8
PFV-CACHIYUYO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,6	5,9	8,9	9,0	9,0	9,0	9,0	9,0	9,0	9,0	9,0	8,4	4,2	0,1	0,0	0,0	0,0	100,0	9,0	4,2
PFV-MALAQUITA2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,8	7,3	9,0	9,0	9,0	9,0	9,0	9,0	9,0	9,0	8,6	6,9	2,4	0,1	0,0	0,0	0,0	100,0	9,0	4,2
PFV-SANTACECILIA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,5	1,1	1,6	2,0	2,1	2,2	2,1	2,0	1,6	1,1	0,5	0,1	0,0	0,0	0,0	0,0	17,0	2,2	0,7
PFV-HOMERO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PFV-MOSTAZAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,4	1,4	1,5	1,4	1,5	1,4	1,6	4,6	3,5	2,0	5,9	7,9	2,7	0,5	0,0	0,0	0,0	36,5	7,9	1,5
PFV-LAACACIA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PFV-ROVIAN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,3	0,9	1,7	2,8	3,1	4,4	5,0	4,9	2,7	3,4	5,7	2,8	0,4	0,0	0,0	0,0	38,5	5,7	1,6
PFV-LALAJUELA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,5	1,0	1,7	4,2	5,6	5,5	5,7	4,7	4,5	6,8	5,5	3,5	0,4	0,0	0,0	0,0	49,9	6,8	2,1
PFV-ALTOSDETILTIL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	1,0	1,1	1,2	0,8	1,5	1,4	1,1	0,7	0,0	0,0	0,0	0,0	0,0	9,0	1,5	0,4
PFV-AMPARODELSOL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,3	0,7	1,6	1,3	1,4	1,5	2,4	2,6	2,6	2,6	1,9	1,2	0,6	0,1	0,0	0,0	0,0	20,7	2,6	0,9
PFV-ELROBLE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,4	0,6	0,8	0,7	1,2	1,8	4,2	4,0	4,3	8,2	7,9	6,8	2,5	0,1	0,0	0,0	0,0	43,4	8,2	1,8
PFV-LOSGORRIONES	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,3	0,5	0,9	2,4	2,5	2,4	2,2	2,9	2,5	1,7	1,1	1,5	0,2	0,0	0,0	0,0	21,4	2,9	0,9
PFV-ELPITIO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,3	0,5	1,5	2,2	2,3	2,2	2,5	2,1	2,4	1,5	0,7	1,3	0,2	0,0	0,0	0,0	19,8	2,5	0,8

PFV-LOSIERRA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,3	0,2	0,9	0,7	2,0	1,7	1,9	1,7	1,1	0,5	0,1	0,0	0,0	0,0	0,0	11,4	2,0	0,5
PFV-SANTAADRIANA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,3	0,3	0,4	0,5	0,5	0,4	1,1	1,0	0,9	1,8	1,8	0,8	0,1	0,0	0,0	0,0	10,0	1,8	0,4
PFV-RLA-SOLAR	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,3	0,2	0,8	0,8	1,8	1,7	2,3	2,5	2,3	2,0	1,0	0,1	0,0	0,0	0,0	16,2	2,5	0,7
PFV-MARCHIGUE-2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,3	0,9	1,0	2,7	8,6	7,5	7,8	8,6	0,0	0,0	6,2	9,0	5,0	0,7	0,0	0,0	0,0	58,2	9,0	2,4
PFV-MARCHIGUE-VII	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,2	0,4	2,0	1,5	2,7	2,4	2,6	2,4	2,4	2,2	0,9	0,1	0,0	0,0	0,0	20,2	2,7	0,8
PFV-ESPERANZA2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,5	0,8	1,4	3,9	6,0	5,7	6,3	7,9	8,9	8,7	7,7	4,0	0,4	0,0	0,0	0,0	62,4	8,9	2,6
PFV-POBLACION	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,3	0,5	1,7	1,5	2,1	2,3	2,3	2,4	2,5	2,1	1,3	0,1	0,0	0,0	0,0	19,4	2,5	0,8
PFV-PORTEZUELO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,2	0,6	1,1	1,5	1,7	2,0	2,4	2,5	2,4	2,1	1,2	0,1	0,0	0,0	0,0	18,3	2,5	0,8
PFV-VITUCO2B	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,5	1,2	1,5	1,7	1,9	2,6	2,7	2,5	2,4	1,3	0,1	0,0	0,0	0,0	18,7	2,7	0,8
PFV-ELPILPEN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,3	0,3	0,5	0,4	0,4	1,5	1,9	1,8	2,8	2,9	2,6	1,3	0,1	0,0	0,0	0,0	17,1	2,9	0,7
PFV-LAUREL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,3	0,8	0,8	1,4	1,3	1,4	1,5	4,7	4,7	3,6	6,0	5,2	2,2	0,3	0,0	0,0	0,0	34,3	6,0	1,4
PFV-DONIHUE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,5	0,6	1,0	2,0	1,9	2,4	5,9	6,2	5,5	5,5	2,0	3,0	0,3	0,0	0,0	0,0	37,1	6,2	1,5
PFV-CRUCERO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,7	2,1	2,7	2,8	2,7	2,6	2,6	2,6	2,5	2,3	2,4	2,2	0,7	0,1	0,0	0,0	0,0	28,9	2,8	1,2
PFV-LUDERS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,5	0,5	0,4	0,5	0,5	0,5	1,4	1,1	0,5	1,4	2,7	1,0	0,2	0,0	0,0	0,0	11,2	2,7	0,5
PFV-OVEJERIA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,4	1,6	2,0	2,5	4,8	5,2	5,1	3,4	3,1	2,3	2,5	3,4	3,3	0,3	0,0	0,0	0,0	40,0	5,2	1,7
PFV-ELROMERO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	8,4	50,9	104,3	146,8	175,2	185,7	178,7	171,5	170,9	149,4	107,9	56,0	11,5	0,4	0,0	0,0	0,0	1517,4	185,7	63,2
PFV-ELPELICANO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	22,9	72,6	94,9	99,6	99,8	99,7	96,6	95,3	94,6	75,0	75,0	72,3	35,0	2,0	0,0	0,0	0,0	1035,0	99,8	43,1
PFV-LASILLA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,4	1,3	1,5	1,6	1,6	1,5	1,5	1,5	1,5	1,6	1,5	1,3	0,6	0,0	0,0	0,0	0,0	17,4	1,6	0,7
PFV-PUNTABAJASOLAR	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,4	1,6	2,0	2,0	1,9	1,7	1,7	1,9	2,0	1,9	1,6	0,7	0,1	0,0	0,0	0,0	19,6	2,0	0,8
PFV-SOLDELNORTE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,5	1,2	1,6	2,4	2,2	2,5	1,8	2,6	1,8	1,4	0,8	0,2	0,0	0,0	0,0	0,0	19,1	2,6	0,8
PFV-LUNADELNORTE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,7	1,3	1,9	2,3	2,1	2,3	2,0	2,3	1,5	1,2	0,5	0,1	0,0	0,0	0,0	0,0	18,4	2,3	0,8
PFV-TAMBOREAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,6	1,2	1,7	2,2	2,0	2,3	1,7	2,4	2,0	1,5	0,8	0,2	0,0	0,0	0,0	0,0	18,7	2,4	0,8
PFV-LAGUNILLA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,5	1,0	1,5	1,5	1,5	1,6	2,2	2,6	2,6	2,6	2,6	2,3	0,9	0,0	0,0	0,0	0,0	23,2	2,6	1,0
PFV-SDGx01	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,3	0,4	0,7	0,7	0,8	0,7	0,9	0,8	0,7	0,5	0,2	0,0	0,0	0,0	0,0	0,0	6,7	0,9	0,3
PFV-LACHAPEANA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,3	0,8	1,2	0,2	0,0	0,9	2,0	2,3	2,3	2,3	2,2	1,9	0,9	0,1	0,0	0,0	0,0	17,5	2,3	0,7
PFV-ALTURASDEOVALLE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,3	0,9	1,8	1,7	2,8	3,0	5,2	5,3	4,8	4,0	2,9	1,4	0,3	0,0	0,0	0,0	0,0	34,5	5,3	1,4
PFV-TALHUEN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,5	1,2	1,9	1,9	1,9	1,9	2,8	2,9	2,9	2,9	1,8	1,7	1,1	0,1	0,0	0,0	0,0	25,5	2,9	1,1
PFV-SANTACLARA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,3	0,9	2,0	1,5	1,6	1,7	2,7	2,7	2,7	2,7	2,7	2,6	1,3	0,1	0,0	0,0	0,0	25,7	2,7	1,1
PFV-ANTAY	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,3	1,9	5,2	8,0	9,0	9,0	9,0	9,0	9,0	8,3	6,1	2,9	0,4	0,0	0,0	0,0	0,0	78,1	9,0	3,3
PFV-LASMOLLACAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,4	0,9	1,0	1,4	1,3	2,1	2,4	2,2	1,9	1,5	0,9	0,3	0,0	0,0	0,0	0,0	16,3	2,4	0,7
PFV-ELDIVISADERO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,4	1,4	1,7	1,7	2,2	2,7	2,9	3,0	3,0	3,0	3,0	2,9	1,9	0,2	0,0	0,0	0,0	29,9	3,0	1,2
PFV-LOMASCOLORADAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,3	0,5	0,9	1,1	1,6	1,9	1,8	1,7	1,5	1,2	0,7	0,2	0,0	0,0	0,0	0,0	13,6	1,9	0,6
PFV-CASASBLANCAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PFV-BELLAVISTA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,5	0,7	1,2	2,3	2,5	2,5	2,5	2,3	2,1	1,5	0,9	0,3	0,0	0,0	0,0	0,0	19,5	2,5	0,8
PFV-SANTALAURA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,4	0,8	1,3	2,0	2,5	2,6	1,9	1,9	1,3	1,8	1,3	0,9	0,1	0,0	0,0	0,0	18,9	2,6	0,8
PFV-MONTTSOLAR	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,6	2,1	2,7	2,9	2,9	2,7	0,7	2,9	2,9	2,8	2,7	2,4	1,1	0,0	0,0	0,0	0,0	29,4	2,9	1,2
PFV-JAURURO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,4	0,6	1,3	1,6	1,6	1,2	1,0	0,7	0,7	0,5	0,2	0,0	0,0	0,0	0,0	10,0	1,6	0,4
PFV-CHUCHINI	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,4	0,7	1,1	2,3	2,5	2,7	2,6	2,4	2,1	1,4	0,7	0,3	0,0	0,0	0,0	0,0	19,4	2,7	0,8
PFV-CHALINGA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,4	0,5	0,7	2,2	2,3	2,4	2,4	2,4	2,1	2,3	1,9	0,8	0,1	0,0	0,0	0,0	20,6	2,4	0,9
PFV-ILLAPEL5X	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,4	2,2	1,7	0,0	0,0	0,0	0,0	0,0	0,0	4,2	2,2	0,2
PFV-ALICAHUE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,3	0,5	1,0	1,4	1,9	2,0	1,8	1,3	0,9	1,2	0,7	0,2	0,0	0,0	0,0	0,0	13,2	2,0	0,6
PFV_LA_LIGUA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,4	0,8	1,3	1,9	2,5	2,7	2,0	1,9	1,5	1,3	0,8	0,2	0,0	0,0	0,0	0,0	17,3	2,7	0,7
PFV-SANTAJULIA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,4	0,9	1,3	2,3	2,4	2,9	2,6	1,8	2,1	1,7	2,0	1,0	0,0	0,0	0,0	0,0	21,6	2,9	0,9
PFV-CABILSOL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,4	0,7	1,0	1,5	1,9	2,5	1,6	1,5	1,3	1,0	0,8	0,2	0,0	0,0	0,0	0,0	14,5	2,5	0,6
PFV-ELQUEMADO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,4	0,9	1,4	2,3	2,8	3,0	2,3	2,2	1,6	2,4	1,9	1,0	0,0	0,0	0,0	0,0	22,3	3,0	0,9
PFV-NILHUE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,3	0,5	0,5	0,3	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,9	0,5	0,1
PFV-MARIN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,5	0,6	0,9	1,8	1,7	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	5,7	1,8	0,2
PFV-HORMIGA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,3	0,4	1,3	1,4	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	3,6	1,4	0,1
PFV-ELBOCO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,4	0,5	1,1	1,7	2,2	1,8	1,7	1,3	1,6	1,7	0,8	0,2	0,0	0,0	0,0	0,0	15,1	2,2	0,6
PFV-CANESA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,4	0,6	1,2	2,9	2,9	3,0	3,0	2,9	2,8	2,7	1,9	0,9	0,1	0,0	0,0	0,0	25,4	3,0	1,1
PFV-OLIVILLO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,5	1,0	1,1	2,7	2,7	2,9	4,5	1,1	2,7	7,4	8,5	6,6	3,1	0,4	0,0	0,0	0,0	45,1	8,5	1,9
PFV-ARIZTIA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,4	0,7	1,3	2,0	2,5	2,5	2,0	1,9	1,3	1,6	1,8	0,8	0,1	0,0	0,0	0,0	19,1	2,5	0,8
PFV-PANQUEHUE-2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,3	0,8	1,2	1,9	2,7	2,9	1,2	0,0	0,8	2,1	1,6	0,4	0,4	0,0	0,0	0,0	0,0	16,4	2,9	0,7
PFV-PICURIO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,3	0,6	0,8	1,7	1,7	1,8	1,6	1,3	2,4	1,0	0,2	0,1	0,0	0,0	0,0	13,8	2,4	0,6
PFV-TILTIL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,5	0,5	0,7	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,0	0,7	0,1
PFV-LUNA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,2	0,5	1,1	1,2	1,7	1,7	1,7	1,6	2,0	1,7	0,9	0,1	0,0	0,0	0,0	14,8	2,0	0,6
PFV-ELQUEULE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PFV-OCOA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,4	0,6	1,2	1,4	1,2	0,8	1,2	1,2	1,3	1,4	2,6	1,2	0,0	0,0	0,0	0,0	14,9	2,6	0,6
PFV-CHIMBARONGO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,3	0,6	0,7	1,4	1,5	1,2	1,5	1,4	0,5	0,3	0,1	0,0	0,0	0,0	0,0	9,7	1,5	0,4
PFV-LOSLIBERTADORES	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PFV-CATANSOLAR	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,5	0,8	0,8	0,5	0,2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,8	0,8	0,1
PFV-VILLAPRAT	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,4	0,8	1,6	2,4	2,0	2,1	0,7	0,0	1,2	1,8	1,1	0,5	0,2	0,0	0,0	0,0	14,8	2,4	0,6
PFV-LOSPATOS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,4	0,7	1,3	2,2	2,1	2,0	2,9	2,0	0,5	0,8	0,5	1,0	0,2	0,0	0,0	0,0	16,8	2,9	0,7
PFV-LAFRONTERA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,4	1,4	2,7	3,6	4,4	4,0	3,7	3,7	3,6	2,7	1,4	0,3	0,1	0,0	0,0	0,0	32,1	4,4	1,3
PFV-RANGUIL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PFV-TALCA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,9	1,5	3,9	5,0	3,7	5,4	7,6	4,8	2,6	0,5	1,1	3,6	0,5	0,0	0,0	0,0	41,4	7,6	1,7
PFV-LASPERDICES	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,3	0,6	1,2	1,7	1,9	1,9	2,0	2,2	1,1	0,7	0,3	0,7	0,1	0,0	0,0	0,0	14,8	2,2	0,6
PFV-QUILAPILUN	0,0	0,0	0,0	0,0	0,0	0,0	0,2	4,8	17,7	28,8	28,6	48,8	58,5	58,7	38,0	38,9	37,3	39,9	44,3	42,1	4,2	0,0	0,0	0,0	490,9	58,7	20,5
PFV-TECHOSDEALTAMIRA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PFV-PIRQUE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,5	0,4	0,7	0,6	0,7	0,3	0,4	0,7	0,5	0,4	2,0	1,1	0,1	0,0	0,0	0,0	8,8	2,0	0,4
PFV-FOTOVOLTSOLAR-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,1	0,2	0,2	0,1	0,1	0,2	0,1	0,1	0,2	0,0	0,0	0,0	0,0	0,0	1,6	0,2	0,1
PFV-FRANCISCO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PFV-BLANQUINA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,9	1,0	0,6	0,6	1,0	0,9	3,0	1,7	1,0	4,4	3,8	1,9	0,3	0,0	0,0	0,0	21,3	4,4	0,9
PFV-TRICAHUE2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,6	0,9	1,4	2,0	2,4	1,8	4,3	1,6	0,0	0,0	0,0	3,0	0,5	0,0	0,0	0,0	18,7	4,3	0,8
PFV_SAN_ISIDRO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,2	0,2	0,2	0,3	0,4	0,6	0,7	0,3	0,3	0,2	0,0	0,0	0,0	0,0	3,6	0,7	0,2
PFV-SANPEDRO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,3	0,3	0,9	0,8	1,9	1,8	2,4	2,0	1,4	0,7	0,2	0,0	0,0	0,0	0,0	13,1	2,4	0,5
PFV-LASTURCAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,3	0,4	0,3	0,6	0,7	2,3	1,5	2,3	2,9	2,4	2,3	1,0	0,1	0,0	0,0	0,0	17,2	2,9	0,7
PFV-PAMA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,3	0,6	1,0	1,0	1,7	1,9	1,8	1,7	1,4	1,1	0,6	0,1	0,0	0,0	0,0	0,0	13,4	1,9	0,6
PFV-DONACARMEN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,7	4,4	8,1	11,4	24,1	28,0	31,0	25,6	19,3	14,1	16,2	10,5	3,0	0,4	0,0	0,0	0,0	197,8	31,0	8,2
PFV-SANTUARIO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,5	0,7	0,8	1,7	1,7	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,0	0,0	0,0	0,0	5,7	1,7	0,2
PFV-CALLELARGA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,6	0,6	0,9	1,6	1,8	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	5,7	1,8	0,2
PFV-CASUTO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,4	0,5	0,7	1,4	1,4	0,0	0,0	0,0	0,0	0,8	0,9	0,4	0,0	0,0	0,0	0,0	6,7	1,4	0,3
PFV-ENCONSOLAR	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,4	1,1	1,6	2,3	5,4	5,2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	16,0	5,4	0,7
PFV-LAMANGA-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,2	0,3	1,1	1,0	1,7	2,0	2,0	1,7	1,2	0,6	0,2	0,0	0,0	0,0	0,0	12,2	2,0	0,5
PFV-CORDILLERILLA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,4	0,7	0,6	0,8	0,6	0,5	0,6	0,4	0,3	0,1	0,0	0,0	0,0	0,0	5,4	0,8	0,2
PFV-ALTOSOLAR	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,3	0,5	1,4	1,4	2,3	2,6	2,7	2,2	1,6	0,9	0,2	0,0	0,0	0,0	0,0	16,5	2,7	0,7
PFV-JOSESOLERM	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,3	0,5	0,8	0,8	0,8	0,8	0,6	0,7	0,5	0,2	0,0	0,0	0,0	0,0	6,3	0,8	0,3
PFV-LASCODORNICES	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,3	0,8	2,6	3,0	3,1	2,8	3,0	3,0	3,0	3,0	2,8	1,8	0,3	0,0	0,0	0,0	29,6	3,1	1,2
PFV-ELCERNICALO-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,4	0,9	1,4	1,6	1,5	1,6	1,6	1,6	1,6	1,6	1,5	0,9	0,1	0,0	0,0	0,0	16,3	1,6	0,7
PFV-ELCERNICALO-2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,4	0,8	1,3	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,4	0,8	0,1	0,0	0,0	0,0	15,3	1,5	0,6
PFV-CHINCOL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,3	0,5	1,1	2,6	2,2	2,9	2,9	3,1	2,6	2,3	2,7	1,7	0,2	0,0	0,0	0,0	25,1	3,1	1,0
PFV_VILLA_SECA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,4	1,5	2,5	2,4	1,9	1,7	2,0	1,8	2,4	1,1	0,9	1,2	0,1	0,0	0,0	0,0	20,4	2,5	0,9
PFV-LASPALOMAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,3	1,8	2,9	3,0	2,9	2,1	3,0	3,0	2,7	2,7	2,9	2,6	1,6	0,2	0,0	0,0	0,0	31,6	3,0	1,3
PFV-LASLECHUZAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,7	2,2	2,8	3,0	2,6	2,8	3,0	3,0	3,0	2,9	2,4	0,8	0,0	0,0	0,0	0,0	29,6	3,0	1,2
PFV-LUCESOLAR	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,2	0,3	1,1	1,2	1,7	2,3	2,6	2,5	2,4	2,0	1,0	0,1	0,0	0,0	0,0	17,7	2,6	0,7
PFV-VALLEDELALUNA-2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,3	0,5	0,7	1,4	1,7	1,6	0,8	0,8	1,3	1,6	2,2	1,0	0,1	0,0	0,0	0,0	14,2	2,2	0,6
PFV-CRUZSOLAR	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,5	0,7	1,1	1,7	2,0	0,9	0,0	0,0	0,3	1,1	0,0	0,0	0,1	0,0	0,0	0,0	8,6	2,0	0,4
PFV-SANFRANCISCO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,5	0,9	0,8	1,7	1,7	1,8	1,4	1,0	0,9	1,2	1,4	1,2	0,1	0,0	0,0	0,0	14,7	1,8	0,6
PFV-LIPANGUE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,3	0,0	0,0	0,0	0,4	1,0	1,0	1,3	0,7	0,2	0,0	0,0	0,0	0,0	5,2	1,3	0,2
PFV-LAQUINTA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,5	0,8	0,7	1,7	1,6	1,8	1,3	0,9	0,8	1,0	1,0	1,1	0,1	0,0	0,0	0,0	13,6	1,8	0,6
PFV-CUZCUZ	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,4	0,6	0,9	1,3	1,6	1,8	1,8	2,1	2,0	1,7	1,0	0,3	0,0	0,0	0,0	0,0	15,8	2,1	0,7
PFV-NORTECHICO1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,6	1,8	1,9	1,9	1,9	1,9	1,9	1,9	1,9	1,9	1,5	0,6	0,0	0,0	0,0	0,0	20,0	1,9	0,8
PFV-LOMALOSCOLORADOS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PFV-PERALILLO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,4	1,1	2,0	2,3	1,9	2,3	2,3	2,8	2,4	2,8	1,2	0,5	0,2	0,0	0,0	0,0	22,2	2,8	0,9
PFV-SANTIAGOSOLAR	0,0	0,0	0,0	0,0	0,0	0,0	0,1	4,3	15,5	19,9	28,1	57,0	58,6	59,8	34,6	41,3	47,0	48,1	33,4	5,7	0,9	0,0	0,0	0,0	454,1	59,8	18,9
PFV-ELPIQUERO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,3	0,4	0,8	1,1	1,0	1,6	2,3	2,0	2,7	2,7	2,4	1,1	0,1	0,0	0,0	0,0	18,9	2,7	0,8
PFV-PLACILLASOLAR	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PFV-RODEO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,4	0,6	1,0	1,5	1,7	0,8	1,0	2,3	2,2	2,4	2,2	0,9	0,0	0,0	0,0	0,0	17,2	2,4	0,7
PFV-TUCUQUERE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,8	2,3	2,8	2,9	2,7	3,0	3,0	3,0	2,9	2,9	2,8	2,4	1,2	0,0	0,0	0,0	0,0	32,8	3,0	1,4
PFV-PEDREROS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,4	0,6	1,0	1,5	1,9	1,0	0,0	0,0	1,1	1,8	2,2	1,0	0,1	0,0	0,0	0,0	12,8	2,2	0,5
PFV-DONEUGENIO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,3	0,6	1,1	1,4	1,7	1,9	1,8	2,3	2,1	2,3	1,3	0,2	0,0	0,0	0,0	17,3	2,3	0,7
PFV-CHANCON	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,3	0,4	0,2	0,2	0,5	0,5	1,6	0,4	1,4	1,8	1,2	0,7	0,1	0,0	0,0	0,0	9,5	1,8	0,4
PFV-ELSAUCE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,3	0,3	0,9	0,9	2,3	2,1	2,2	1,0	2,0	2,2	0,7	0,0	0,0	0,0	0,0	15,2	2,3	0,6
PFV-SANTAROSA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,5	0,7	0,9	0,7	2,6	2,6	7,4	5,9	7,9	8,8	8,5	7,7	3,7	0,2	0,0	0,0	0,0	58,2	8,8	2,4
PFV-LASARAUCARIAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
GMAR_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
M1AR_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
M2AR_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
IQUIQUE-MAIQ_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
IQUIQUE-MIIQ_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
IQUIQUE-MSIQ_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
IQUIQUE-SUIQ_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
IQUIQUE-TGIQ_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ZOFRI_1_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

ZOFRI_2-5_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ZOFRI_6_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ZOFRI_13_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ZOFRI_7-12_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CTTAR_CARBÓN	104,8	104,6	100,3	100,5	100,7	99,7	85,0	62,3	62,8	61,2	81,5	88,3	101,1	113,5	109,6	105,8	107,2	105,4	105,2	105,4	103,1	102,2	103,0	102,7	2316,0	113,5	96,5
TGTAR_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
UG1_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
UG1_FUEL OIL NRO. 6	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
UG2_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
UG2_FUEL OIL NRO. 6	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
UG3_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
UG3_FUEL OIL NRO. 6	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
UG4_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
UG4_FUEL OIL NRO. 6	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
UG5_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
UG5_FUEL OIL NRO. 6	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
UG6_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
UG6_FUEL OIL NRO. 6	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CERROPABELLON-U1_GEO	9,6	9,8	9,9	10,1	10,0	10,0	10,1	10,1	9,9	10,3	10,4	10,3	10,1	10,0	10,0	10,1	10,1	10,1	10,2	10,4	10,5	10,6	10,7	10,7	243,6	10,7	10,2
CERROPABELLON-U2_GEO	14,8	15,2	15,3	15,2	15,0	15,4	15,6	15,6	14,8	13,9	13,3	13,0	12,9	12,5	12,4	12,5	12,5	12,7	13,0	13,5	13,7	14,0	14,2	14,3	335,1	15,6	14,0
NORGENER-NTO1_CAR	131,1	131,4	129,7	130,1	130,3	130,5	130,5	131,1	113,5	109,7	131,4	131,4	131,9	131,1	131,1	96,3	65,9	66,6	67,5	105,1	134,5	134,3	134,4	134,4	2863,5	134,5	119,3
NORGENER-NTO2_CAR	129,5	129,9	130,5	130,4	130,5	130,3	130,5	130,0	122,4	127,0	128,8	128,5	128,4	128,2	128,0	127,2	128,2	119,5	118,3	128,3	129,5	130,1	131,0	131,2	3076,2	131,2	128,2
U12_CARBÓN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
U13_CARBÓN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
U14_CARBÓN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
U15_CARBÓN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
U16-TG_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
U16-TG_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
U16-TG_CP_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
U16-TG_CP2_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
U16-TV_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
U16-TV_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
U16-TV_CP_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
U16-TV_CP2_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TG1_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TG2_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TG3_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TG3_GAS NATURAL	30,2	30,2	30,2	30,2	30,2	30,2	30,2	30,2	30,2	30,2	30,2	30,2	30,2	30,2	30,2	30,2	30,2	30,2	30,2	30,2	30,2	30,2	30,2	30,2	724,8	30,2	30,2
TG3_CP_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TG3_CP2_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
KELAR TG1_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
KELAR TG1_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
KELAR TG1_CP_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
KELAR TG2_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
KELAR TG2_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
KELAR TG2_CP_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
KELAR TV_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
KELAR TV_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
KELAR TV_CP_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ANGAMOS-ANG1_CAR	235,6	235,5	235,2	235,0	235,7	235,1	237,3	236,4	242,7	237,3	236,9	234,9	235,5	233,7	233,0	203,3	225,5	201,1	229,3	240,0	235,5	236,5	235,0	236,2	5582,3	242,7	232,6
ANGAMOS-ANG2_CAR	235,3	235,6	235,3	235,1	235,8	236,8	236,7	236,2	241,9	237,7	237,4	235,4	236,2	234,4	233,2	204,7	225,3	202,4	228,8	239,5	235,2	237,1	236,9	236,7	5589,5	241,9	232,9
CCH1_CARBÓN	273,5	273,5	273,5	273,5	273,5	273,5	273,5	272,0	195,4	195,8	272,3	272,6	272,5	238,9	173,7	109,5	104,1	92,0	93,5	155,3	244,9	273,8	272,5	271,4	5424,8	273,8	226,0
CCH2_CARBÓN	272,8	272,9	272,3	273,3	272,8	272,7	272,9	271,7	187,8	193,6	272,0	273,4	272,8	238,7	173,7	111,2	104,2	91,8	93,8	162,8	246,6	266,7	273,1	272,5	5416,4	273,4	225,7
MEJILLONES-CTM1_CAR	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
MEJILLONES-CTM2_CAR	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CTM3-TG_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CTM3-TG_GAS NATURAL	153,0	153,0	154,0	154,0	155,0	154,0	156,0	155,0	154,0	149,0	150,0	148,0	148,0	146,0	142,0	147,0	143,0	147,0	140,0	146,0	150,0	152,0	153,0	153,0	3602,0	156,0	150,1
CTM3-TG_CP_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CTM3-TG_CP2_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CTM3-TV_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CTM3-TV_GAS NATURAL	83,0	82,0	83,0	82,0	81,0	83,0	81,0	84,0	81,0	82,0	81,0	82,0	82,0	80,0	79,0	81,0	79,0	81,0	77,0	79,0	82,0	81,0	83,0	82,0	1951,0	84,0	81,3
CTM3-TV_CP_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CTM3-TV_CP2_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
MEJILLONES-IEM_CAR	370,0	370,0	360,0	370,0	360,0	380,0	360,0	370,0	370,0	370,0	370,0	370,0	370,0	370,0	370,0	360,0	360,0	370,0	380,0	380,0	360,0	360,0	370,0	360,0	8830,0	380,0	367,9
ANDINA-CTA_CAR	169,0	167,0	169,0	168,0	169,0	169,0	170,0	167,0	153,0	153,0	169,0	171,0	169,0	170,0	170,0	145,0	141,0	119,0	79,0	96,0	138,0	166,0	167,0	169,0	3723,0	171,0	155,1
HORNITOS-CTH_CAR	132,0	127,0	110,0	110,0	107,0	89,0	75,0	73,0	76,0	107,0	148,0	170,0	170,0	168,0	169,0	168,0	168,0	167,0	162,0	170,0	164,0	173,0	164,0	172,0	3339,0	173,0	139,1
TG1A_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TG1A_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TG1B_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TG1B_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TG2A_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TG2A_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TG2B_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TG2B_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TV1C_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TV1C_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TV2C_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TV2C_GAS NATURAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PAM_COGEN	16,7	16,7	17,2	17,0	16,9	16,8	17,3	17,0	17,1	16,5	16,7	16,6	16,1	15,9	15,9	15,4	15,6	15,5	15,5	15,8	16,5	16,6	16,4	16,6	394,3	17,3	16,4
ENAEX CUMMINS_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ENAEX DEUTZ_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
MANTOSBLANCOS-MIMB_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LAPORTADA-TECNET_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
INACAL_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
AGB_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TALTAL-1_GAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TALTAL-2_GAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TALTAL-1_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TALTAL-2_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TALTAL-1_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TALTAL-2_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
DALMAGRO_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SALVADOR_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
EMELDA-1_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
EMELDA-2_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ANDES-1_FO6	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ANDES-2_FO6	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ANDES-3_FO6	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ANDES-4_FO6	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ANDES-1_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ANDES-2_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ANDES-3_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ANDES-4_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SANLORENZO-1_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SANLORENZO-2_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SANLORENZO-3_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CENIZAS_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TERMOPACIFICO_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CARDONES_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
GUACOLDA-1_CAR	143,0	143,0	143,0	143,0	143,0	144,0	144,0	144,0	144,0	144,0	144,0	144,0	144,0	144,0	144,0	144,0	144,0	143,0	143,0	143,0	143,0	143,0	143,0	143,0	3444,0	144,0	143,5
GUACOLDA-2_CAR	148,0	148,0	149,0	148,0	149,0	149,0	149,0	149,0	149,0	149,0	148,0	148,0	148,0	148,0	148,0	149,0	149,0	149,0	149,0	149,0	149,0	149,0	149,0	150,0	3569,0	150,0	148,7
GUACOLDA-3_CAR	154,0	154,0	154,0	154,0	154,0	154,0	153,0	154,0	117,0	90,0	93,0	144,0	154,0	154,0	154,0	154,0	154,0	154,0	154,0	154,0	154,0	154,0	154,0	154,0	3523,0	154,0	146,8
GUACOLDA-4_CAR	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	70,0	54,0	56,0	56,0	52,0	52,0	56,0	68,0	80,0	80,0	80,0	97,0	105,0	110,0	131,0	135,0	2082,0	135,0	86,8
GUACOLDA-5_CAR	1,0	27,0	43,0	66,0	109,0	128,0	148,0	153,0	154,0	154,0	153,0	154,0	153,0	154,0	154,0	153,0	154,0	153,0	153,0	154,0	154,0	153,0	154,0	154,0	3133,0	154,0	130,5
HUASCO TV	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
HUASCO_IFO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
HUASCO_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PCOLORADA_IFO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PCOLORADA_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PENON_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
OLIVOS_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ESPINOS_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
VENTANAS-1_CAR	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
VENTANAS-2_CAR	94,0	92,0	91,0	90,0	91,0	90,0	90,0	92,0	93,0	91,0	92,0	91,0	92,0	91,0	91,0	92,0	92,0	91,0	92,0	93,0	93,0	92,0	93,0	93,0	2202,0	94,0	91,8

NUEVAVENTANAS_CAR	254,0	252,0	254,0	254,0	267,0	261,0	256,0	248,0	248,0	248,0	245,0	256,0	254,0	254,0	249,0	249,0	252,0	256,0	211,0	227,0	262,0	266,0	252,0	252,0	6027,0	267,0	251,1
CAMPICHE_CAR	267,0	267,0	267,0	267,0	266,0	263,0	260,0	245,0	185,0	189,0	199,0	222,0	270,0	270,0	270,0	218,0	250,0	195,0	137,0	162,0	197,0	270,0	270,0	268,0	5674,0	270,0	236,4
COLMITO_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
COLMITO_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CONCON_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LIPIGASCONCON_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PLACILLA_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
QUINTAY_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ELTOTORAL_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LAGVERDE-TV_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LAGVERDE-TG_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
QUINTERO-1_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
QUINTERO-2_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
QUINTERO-1_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
QUINTERO-1_GN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
QUINTERO-2_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
QUINTERO-2_GN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NEHUENCO-1_GAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NEHUENCO-1_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NEHUENCO-1_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NEHUENCO-2_GAS	377,0	377,0	378,0	377,0	376,0	378,0	375,0	378,0	377,0	377,0	379,0	378,0	379,0	379,0	379,0	379,0	379,0	378,0	379,0	379,0	378,0	379,0	378,0	380,0	9073,0	380,0	378,0
NEHUENCO-2_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NEHUENCO-2_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NEHUENCO-9B_GAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NEHUENCO-9B_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NEHUENCO-9B_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SANISIDRO-1_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SANISIDRO-1_GAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SANISIDRO-1_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SANISIDRO-2_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SANISIDRO-2_GAS	364,0	363,0	362,0	362,0	234,0	220,0	279,0	206,0	33,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2423,0	364,0	101,0
SANISIDRO-2_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LASVEGAS_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LOSVIENTOS_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LOMALOSCOLORADOS-1_BIOGAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LOMALOSCOLORADOS-2_BIOGAS	13,4	14,9	14,8	14,8	14,8	14,8	14,9	14,9	14,8	14,6	14,5	14,1	14,2	13,8	13,4	13,7	13,9	14,0	14,1	14,3	14,5	14,6	14,5	14,6	344,9	14,9	14,4
NUEVA RENCA CC	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NUEVARENCA_GN	324,0	327,0	330,0	332,0	333,0	332,0	332,0	290,0	165,0	163,0	162,0	161,0	163,0	163,0	160,0	162,0	162,0	162,0	161,0	238,0	319,0	321,0	325,0	329,0	5916,0	333,0	246,5
NUEVARENCA_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NUEVARENCA_FA1_GLP	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NUEVARENCA_FA1_GN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NUEVARENCA_FA1_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NUEVARENCA_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
RENCA-1_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
RENCA-2_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SANTAMARTA_COGEN	7,3	7,2	8,9	8,0	8,1	8,0	8,0	7,6	7,6	7,7	8,0	8,2	8,3	8,2	7,7	8,3	7,4	7,9	8,1	8,2	8,3	8,2	8,3	8,1	191,6	8,9	8,0
CMPCCORDILLERA_COGEN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	10,0	12,5	10,5	10,9	11,1	2,3	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	57,3	12,5	2,4
LEPANTO_BIOGAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CMPCTISSUE_COGEN	0,4	0,4	0,3	0,6	0,9	0,5	1,0	0,7	0,7	0,4	0,3	0,2	0,0	0,0	0,2	0,0	0,0	0,0	0,0	0,6	1,2	0,9	1,2	1,2	11,7	1,2	0,5
CANDELARIA-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CANDELARIA-2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CANDELARIA-1_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CANDELARIA-2_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CANDELARIA-1_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CANDELARIA-2_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
EPACIFICO_COGEN	14,7	15,0	15,0	14,9	15,0	14,6	14,7	14,5	15,0	14,6	14,7	14,2	14,1	14,6	14,5	14,9	14,6	14,1	13,5	13,0	14,5	14,7	14,9	15,0	349,4	15,0	14,6
SAN FRANCISCO DE MOSTAZAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
COLIHUES_HFO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
COLIHUES_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ESPERANZA-DS1_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ESPERANZA-DS2_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ESPERANZA-TG1_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TENO_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TENO_GAS_50	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CEMENTOSBIOBIO_FO6	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CEMENTOSBIOBIO_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LICANTEN_COGEN	2,4	2,4	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,2	2,0	2,0	2,1	2,4	2,3	2,7	2,5	2,6	2,7	2,5	2,1	1,7	2,4	52,8	2,7	2,2
VINALES_COGEN	31,9	31,6	31,8	31,5	31,7	31,7	31,3	32,0	32,0	32,0	32,0	32,0	32,0	32,0	32,0	32,0	32,0	30,2	30,0	30,0	30,0	30,0	30,0	30,0	751,6	32,0	31,3
CONSTITUCION-1-ELEK	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CONSTITUCION-2-ELEK	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CELCO_COGEN	8,4	7,3	7,9	7,8	7,9	7,4	7,8	7,6	7,6	8,0	6,8	7,9	7,1	7,4	7,2	7,4	7,6	8,2	8,0	7,7	7,5	8,3	7,8	8,0	184,4	8,4	7,7
RASOPOWER_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LINARES_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SANGREGORIO_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NUEVAALDEA-1_COGEN	4,8	4,8	4,9	6,4	5,7	5,1	5,6	8,2	8,5	8,3	6,6	7,3	7,9	7,3	6,3	5,2	5,5	6,2	6,2	6,1	7,7	7,8	7,3	7,9	157,7	8,5	6,6
NUEVAALDEA-2_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NUEVAALDEA-3_COGEN	35,7	38,9	37,2	32,5	33,9	37,1	37,4	37,7	38,5	35,5	36,0	34,1	34,5	36,2	36,7	34,3	30,8	33,4	29,7	29,0	32,0	36,3	35,6	36,5	839,1	38,9	35,0
LAJAEVE	1,0	1,0	1,0	1,0	1,0	1,0	2,0	2,0	2,0	2,0	1,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	1,0	1,0	1,0	2,0	1,0	37,0	2,0	1,5
MASISA_COGEN	5,6	5,6	5,6	5,6	5,6	5,5	5,6	5,6	5,6	5,6	5,6	5,6	5,6	5,6	5,6	5,6	5,6	5,6	5,6	5,6	5,5	5,6	5,5	5,6	134,1	5,6	5,6
YUNGAY-1_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
YUNGAY-2_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
YUNGAY-3_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
YUNGAY-1_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
YUNGAY-2_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
YUNGAY-3_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
YUNGAY-4_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SANTALIDIA_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SANTAFE_COGEN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CMPCLAJA_COGEN	26,3	25,7	26,1	25,8	26,7	26,8	26,3	21,7	23,4	27,3	29,6	26,6	21,7	18,4	19,1	17,2	16,9	14,2	19,8	15,8	16,9	14,0	15,9	15,6	517,8	29,6	21,6
CMPCPACIFICO_COGEN	17,4	15,2	13,4	17,9	17,8	15,2	15,0	15,4	18,6	18,0	19,3	17,7	16,8	16,6	17,3	18,0	18,2	16,4	15,8	14,9	10,8	10,6	9,4	9,9	375,6	19,3	15,7
PMGD-CMPCSANTAFE_COGEN	9,2	7,8	9,1	9,1	8,0	8,3	8,9	9,7	10,0	9,0	8,2	8,9	8,6	10,4	8,7	8,9	9,5	11,2	10,5	9,4	9,7	9,9	10,2	10,3	223,5	11,2	9,3
LOSPINOS_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LOSGUINDOS_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LOSGUINDOS_2_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CHOLGUAN_COGEN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,0	0,1	0,2	0,2	0,6	0,4	0,7	0,5	0,4	0,8	1,7	1,4	7,0	1,7	0,3
NEWEN_PROPANO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NEWEN_BUTANO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NEWEN_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NEWEN_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NEWEN_GAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
NEWEN_PRO_ BUT	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PETROPOWER_PET	52,5	52,5	52,5	53,5	53,5	54,0	53,0	53,0	53,5	51,0	53,0	53,0	52,5	53,5	53,0	52,5	53,5	52,5	52,5	52,0	52,5	52,0	53,0	53,0	1267,5	54,0	52,8
ESCUADRON_COGEN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SANTAMARIA_CAR	357,0	358,0	358,0	358,0	358,0	358,0	358,0	358,0	358,0	359,0	358,0	357,0	357,0	357,0	357,0	357,0	357,0	357,0	357,0	356,0	356,0	356,0	357,0	357,0	8576,0	359,0	357,3
CORONEL_GN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CORONEL_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CORONEL_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
BOCAMINA-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
BOCAMINA-2	244,0	186,0	184,0	185,0	184,0	184,0	184,0	184,0	184,0	184,0	184,0	184,0	184,0	184,0	184,0	184,0	184,0	186,0	183,0	185,0	185,0	186,0	185,0	186,0	4487,0	244,0	187,0
HORCONES_TG	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
HORCONES_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ARAUCO_COGEN	0,9	0,6	1,2	2,3	3,2	2,8	3,5	5,1	5,9	1,8	8,4	8,9	10,9	8,6	7,8	7,0	4,7	3,1	5,6	5,7	7,2	6,0	4,2	7,9	123,2	10,9	5,1
LAUTARO-1_COGEN	25,9	25,9	25,9	25,8	25,8	25,8	25,5	25,6	23,8	25,9	25,9	25,9	25,9	25,7	24,1	14,1	18,0	23,9	17,7	17,2	25,7	26,0	25,6	25,6	577,4	26,0	24,1
LAUTARO-2_COGEN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
VALDIVIA_COGEN	12,9	16,2	14,5	14,8	14,4	10,4	12,7	11,6	14,1	13,7	15,1	18,4	17,2	13,2	10,4	11,3	8,9	11,9	13,0	10,1	12,7	12,1	8,8	13,1	311,4	18,4	13,0
ANTILHUE_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CALLECALLE_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CHUYACA_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TRAPEN_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ALMENDRADO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TRINCAO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CALFUCO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
DEGAN_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CHILOE_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

MONTEPATRIA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PUNITAQUI	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ELMOLLE	1,0	1,0	1,0	1,0	1,0	1,0	1,0	0,8	0,5	1,0	1,1	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,1	1,1	1,1	1,0	24,2	1,1	1,0
BIOCRUZ	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TOMAVAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	1,5	1,5	1,5	1,5	1,5	0,7	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	8,3	1,5	0,3
PMGD-CORTES	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PMGD-ERMITANO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CASABLANCA-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CASABLANCA-2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TAPIHUE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CURAUMA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PMGD-CHORRILLOS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TREBALMAPOCHO	0,0	0,0	0,0	0,0	0,0	0,1	0,0	0,4	0,5	0,5	0,5	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,1	0,5	0,1
ELNOGAL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ESTANCILLA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PMGD-COPIULEMU	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	18,7	0,8	0,8
PMGD-ELCAMPESINO1	0,1	0,1	0,1	0,2	0,4	0,3	0,2	0,2	0,0	0,0	0,0	0,0	0,1	0,0	0,0	0,1	0,2	0,2	0,2	0,2	0,2	0,1	0,1	0,1	3,1	0,4	0,1
PMGD-MIMBRE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SANTAIRENE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LASPAMPAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TAMM	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CURICO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CHILE_GEN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PMGD-ORAFTI	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ENERGIA BIOBIO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
COELEMU	4,3	4,3	4,2	4,4	4,2	4,2	4,4	4,4	4,5	4,0	4,1	3,2	3,6	4,0	4,2	4,1	3,6	3,9	4,1	3,2	4,8	4,2	4,2	4,4	98,4	4,8	4,1
CAÑETE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TRONGOL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LEBU	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TIRUA	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CONTULMO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LOSALAMOS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
JCE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
HBS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
HBS_GNL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ANCALI	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PICOLTUE	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PMGD-LOSSAUCES	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PMGD-LOSSAUCES-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PMGD-LOSSAUCES-2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PMGD-MALLECO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CHUFKEN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CURACAUTIN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LONQUIMAY	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
EAGON	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LPLAUTARO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LPPANGUIPULLI	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
REY_DIESEL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SOUTHERN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
WATTS-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
WATTS-2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SKRETTINGOSORNO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
PMGD-CIRUELILO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
MULTIEXPORT-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
MULTIEXPORT-2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
ELCANELO-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SKRETTING	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
DANISCO	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
BIOMAR	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SALMOFOOD-1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
CHANGOS->CUMBRES C1	-99,4	-104,9	-116,0	-120,2	-90,8	-93,1	-112,5	-54,4	15,2	60,1	183,0	200,7	218,8	225,2	163,8	56,1	42,5	-8,4	-44,3	-91,4	-92,2	-101,7	-124,7	-125,0	-213,5	225,2	-8,9
CHANGOS->CUMBRES C2	-102,0	-107,6	-118,7	-122,8	-93,5	-95,8	-115,2	-57,2	12,3	56,9	179,6	197,2	215,3	221,8	160,4	52,9	39,4	-11,4	-47,2	-94,3	-95,0	-104,4	-127,3	-127,7	-284,0	221,8	-11,8
CUMBRES->CHANGOS C1	108,8	114,5	125,9	130,0	99,8	102,2	122,1	62,4	-9,6	-55,4	-180,0	-197,4	-215,5	-221,9	-159,9	-50,7	-37,2	14,6	51,4	100,2	101,5	111,5	135,1	135,3	387,5	135,3	16,1
CUMBRES->CHANGOS C2	108,4	114,2	125,6	129,7	99,5	101,9	121,7	61,9	-10,3	-56,0	-180,7	-198,1	-216,3	-222,7	-160,6	-51,3	-37,9	14,1	50,9	99,8	101,1	111,2	134,8	135,0	375,8	135,0	15,7
TOTAL HORA.	6697,3	6313,6	6088,1	5906,7	5736,1	5753,9	5750,7	5678,2	6002,7	6341,9	6334,6	6462,2	6432,6	6323,0	6352,6	6443,2	6364,8	6284,3	6281,8	6378,4	6425,3	6857,0	6761,4	6423,7	**150.394**		
TOTAL HORA. SING	2386	2371	2337	2345	2332	2344	2299	2406	2552	2682	2970	3013	3054	3056	2962	2728	2719	2626	2547	2468	2474	2495	2444	2419	**62.030**		
TOTAL SEN	9084	8685	8425	8251	8068	8098	8050	8085	8555	9024	9304	9476	9487	9379	9315	9171	9084	8911	8829	8846	8899	9352	9205	8843	**212.424**		
CONS. PROPIOS	202	202	202	202	202	202	202	202	202	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197	**4.773**		
CONS. PROPIOS SING	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	**4.462**		
FLUJO CHANGOS->CUMBRES	-209	-221	-243	-251	-192	-196	-236	-118	24	114	362	397	433	446	322	105	79	-24	-97	-193	-195	-214	-261	-261	**-630**		
PERDIDAS APROX.	181	160	147	138	133	134	132	134	157	180	193	202	203	197	192	185	179	169	165	165	167	190	182	164	**4.047**		
PERDIDAS APROX. SING	78	77	76	78	68	70	70	68	69	74	79	81	81	80	84	81	84	85	85	87	88	94	93	90	**1.920**		
DEMANDA APROX.	6105	5731	5495	5315	5209	5222	5181	5224	5667	6080	6307	6460	6466	6375	6286	6167	6068	5894	5823	5824	5866	6256	6122	5802	**140.944**		
DEMANDA APROX. SING	2332	2329	2319	2332	2270	2284	2280	2270	2274	2308	2343	2350	2354	2345	2370	2355	2371	2379	2374	2388	2394	2429	2426	2405	**56.279**		
HORA	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	DMAX :	6857,0	6857

ANEXO N°3

Detalle del movimiento de centrales e informe diario del CDC correspondientes al día 14 de diciembre de 2019

Ultima Actualización:	14-12-2019	23:56												
Hora Movi.	Equipo / Instalación	Central-Unidad	Configuración	MW Actual	Estado Operacional	EO Combustibles	Consigna	Consigna Limitación	Instrucción Condición	Motivo Comentario	Zona Desacople	Condición del Embalse	Neomante	Centro de Control
00:00	-	CANUTILLAR-2	CANUTILLAR	-	N	-	AGC	-	AGC	Continúa participando en control secundario con AGC.	-	-	-	COLBUN
00:00	-	ELTORO-1	ELTORO_sinv	-	N	-	CI	-	CPF	Continúa participando en control primario de frecuencia.	-	-	-	ENEL GENERACION
00:00	-	ELTORO-2	ELTORO_sinv	-	N	-	CI	-	CPF	Continúa participando en control primario de frecuencia.	-	-	-	ENEL GENERACION
00:00	-	ELTORO-3	ELTORO_sinv	-	N	-	CI	-	CPF	Continúa participando en control primario de frecuencia.	-	-	-	ENEL GENERACION
00:00	-	ELTORO-4	ELTORO_sinv	-	N	-	CI	-	CPF	Continúa participando en control primario de frecuencia.	-	-	-	ENEL GENERACION
00:00	-	PEHUENCHE-2	PEHUENCHE	-	N	-	AGC	-	AGC	Continúa participando en control secundario con AGC.	-	-	-	ENEL GENERACION
00:00	-	RALCO-1	RALCO_sinv	-	N	-	AGC	-	AGC	Continúa participando en control secundario con AGC.	-	-	-	ENEL GENERACION
00:00	-	RALCO-2	RALCO_sinv	-	N	-	AGC	-	AGC	Continúa participando en control secundario con AGC.	-	-	-	ENEL GENERACION
00:00	-	ANGOSTURA-1	RALCO_sinv	-	N	-	MT	-	CPF	Continúa participando en control primario de frecuencia.	-	-	-	COLBUN
00:00	-	ANGOSTURA-2	RALCO_sinv	-	N	-	MT	-	CPF	Continúa participando en control primario de frecuencia.	-	-	-	COLBUN
00:00	-	PANGUE-1	RALCO_sinv	-	N	-	AGC	-	AGC	Continúa participando en control secundario con AGC.	-	-	-	ENEL GENERACION
00:00	-	COLBUN	COLBUN	-	-	-	-	-	RE	Se declara en condición de Agotamiento	-	A	-	COLBUN
00:00	-	RAPEL	RAPEL	-	-	-	-	-	RE	Se declara en condición de Agotamiento	-	A	-	ENEL GENERACION
00:00	-	CHOLGUAN	CHOLGUAN_BL1_COGEN	MT	N	-	MT	-	OM	Cambio en La Política de Precios	-	-	-	ARAUCO
00:00	-	ANDINA-CTA	ANDINA-CTA_CAR	-	LF	-	PC	PCP	CPF/OM	Continúa participando en control primario de frecuencia.	-	-	IL 1497	ENGIE
00:00	-	ANGAMOS-ANG1	ANGAMOS-ANG1_CAR	-	N	-	AGC	-	AGC	Continúa participando en control secundario con AGC.	-	-	-	AES GENER
00:00	-	ANGAMOS-ANG2	ANGAMOS-ANG2_CAR	-	N	-	AGC	-	AGC	Continúa participando en control secundario con AGC.	-	-	-	AES GENER
00:00	-	COCHRANE-CCH1	COCHRANE-CCH1_CAR	-	N	-	AGC	-	AGC	Continúa participando en control secundario con AGC.	-	-	-	AES GENER
00:00	-	COCHRANE-CCH2	COCHRANE-CCH2_CAR	-	N	-	AGC	-	AGC	Continúa participando en control secundario con AGC.	-	-	-	AES GENER
00:00	-	NORGENER-NTO1	NORGENER-NTO1_CAR	-	N	-	PC	-	CPF/OM	Continúa participando en control primario de frecuencia.	-	-	-	AES GENER
00:00	-	NORGENER-NTO2	NORGENER-NTO2_CAR	-	N	-	PC	-	CPF/OM	Continúa participando en control primario de frecuencia.	-	-	-	AES GENER
00:00	-	HORNITOS-CTH	HORNITOS-CTH_CAR	-	LF	-	PC	PCP	CPF/OM	Continúa participando en control primario de frecuencia.	-	-	IL 2044 - IL 1504	ENGIE
00:00	-	MEJILLONES-CTM3	MEJILLONES-CTM3_TG1+TV1_GNL_INFLEX	-	N	LC	PC	-	CPF/OM	Continúa participando en control primario de frecuencia.	-	-	-	ENGIE
00:00	-	TOCOPILLA-TG3	TOCOPILLA-TG3_GNL_INFLEX	-	N	LC	PC	-	CPF/OM	Continúa participando en control primario de frecuencia.	-	-	-	ENGIE
00:04	-	COLBUN-1	COLBUN_sinv	180	N	-	CI	-	RE	Control Cota MACHICURA	-	A	-	COLBUN
00:04	-	COLBUN-2	COLBUN_sinv	180	N	-	CI	-	RE	Control Cota MACHICURA	-	A	-	COLBUN
00:55	-	GUACOLDA-5	GUACOLDA-5_CAR	-	PO	-	EP	-	EP	-	-	-	SDCF 89784 - IL 1938	AES GENER
00:59	-	COLBUN-1	COLBUN_sinv	140	N	-	CI	-	RE	Control Cota MACHICURA	-	A	-	COLBUN
00:59	-	COLBUN-2	COLBUN_sinv	140	N	-	CI	-	RE	Control Cota MACHICURA	-	A	-	COLBUN
01:08	-	COLBUN-1	COLBUN_sinv	MT	N	-	MT	-	RE	Control Cota MACHICURA	-	A	-	COLBUN
01:08	-	COLBUN-2	COLBUN_sinv	MT	N	-	MT	-	RE	Control Cota MACHICURA	-	A	-	COLBUN
01:30	-	COLBUN-1	COLBUN_sinv	0	DN	-	FS	-	RE	Control Cota MACHICURA	-	A	-	COLBUN
01:30	-	HORNITOS-CTH	HORNITOS-CTH_CAR	110	LF	-	PC	PCP	OM	-	-	-	IL 2045 - IL 1504	ENGIE
01:46	S/E CHARRUA 220 kV	-	-	-	-	-	-	-	SSCC-CT	S/E CHARRUA 220 kV: [-ELTORO-ANTUCO-PANGUE-RALCO]. Bajar 3 kV.	-	-	-	-
01:46	S/E ANCOA 220 kV	-	-	-	-	-	-	-	SSCC-CT	S/E ANCOA 220 kV: [-PEHUENCHE]. Bajar 3 kV.	-	-	-	-
01:46	S/E RENCA 110 kV	-	-	-	-	-	-	-	SSCC-CT	S/E RENCA 110 kV: [-NUEVA RENCA]. Bajar 3 kV.	-	-	-	-
01:54	-	COLBUN-2	COLBUN_sinv	0	DN	-	FS	-	RE	Control Cota MACHICURA	-	A	-	COLBUN
02:49	-	ANGOSTURA-1	RALCO_sinv	0	DN	-	FS	-	RE	Finaliza participando en control primario de frecuencia.	-	-	-	COLBUN
03:31	-	RALCO-1	RALCO_sinv	0	DN	-	FS	-	OM	Finaliza participando en control de frecuencioa secundario AGC.	-	N	-	ENEL GENERACION
03:55	-	NUEVAVENTANAS	NUEVAVENTANAS_CAR	-	N	-	PC	-	OM	Cancelada Limitación IL 2042.	-	-	-	AES GENER
03:56	-	SANISIDRO-2	SANISIDRO-2_TG1+TV1_FSTVU_GN_A	300	N	LC	CI	-	OM	-	-	-	-	ENEL GENERACION
04:09	-	CANUTILLAR-2	CANUTILLAR	0	DN	-	FS	-	OM	-	-	N	-	COLBUN
04:10	-	SANISIDRO-2	SANISIDRO-2_TG1+TV1_FSTVU_GN_A	250	N	LC	CI	-	OM	-	-	-	-	ENEL GENERACION
04:31	-	SANISIDRO-2	SANISIDRO-2_TG1+TV1_FSTVU_GN_A	MT	N	LC	MT	-	OM	-	-	-	-	ENEL GENERACION
05:04	-	HORNITOS-CTH	HORNITOS-CTH_CAR	75	LF	-	PC	PCP	OM	-	-	-	IL 2046 - IL 1504	ENGIE
05:15	-	SANISIDRO-2	SANISIDRO-2_TG1+TV1_FSTVU_GN_A	250	N	LC	CI	-	OM	-	-	-	-	ENEL GENERACION
05:35	-	NUEVAVENTANAS	NUEVAVENTANAS_CAR	250	LF	-	PC	PCP	OM	Con Limitación IL 2047.	-	-	IL 2047	AES GENER
05:38	-	CAMPICHE	CAMPICHE_CAR	260	LF	-	PC	PCP	OM	Con Limitación IL 2048.	-	-	IL 2048	AES GENER
06:04	-	TARAPACA-CTTAR	TARAPACA-CTTAR_CAR	60	LF	-	PC	PCP	SICF	-	-	-	SICF 92002 - IL 1871 - IL 1842	CELTA
06:07	-	SANISIDRO-2	SANISIDRO-2_TG1+TV1_FSTVU_GN_A	300	N	LC	CI	-	OM	-	-	-	-	ENEL GENERACION
06:41	-	SANISIDRO-2	SANISIDRO-2_TG1+TV1_FSTVU_GN_A	240	N	LC	CI	-	OM	-	-	-	-	ENEL GENERACION
06:45	S/E CHARRUA 220 kV	-	-	-	-	-	-	-	SSCC-CT	S/E CHARRUA 220 kV: [-ELTORO-ANTUCO-PANGUE-RALCO]. Bajar 3 kV.	-	-	-	-
06:45	S/E ANCOA 220 kV	-	-	-	-	-	-	-	SSCC-CT	S/E ANCOA 220 kV: [-PEHUENCHE]. Bajar 3 kV.	-	-	-	-
07:21	-	SANISIDRO-2	SANISIDRO-2_TG1+TV1_FSTVU_GN_A	MT	N	LC	MT	-	OM	-	-	-	-	ENEL GENERACION
07:27	-	NUEVARENCA	NUEVARENCA_TG1+TV1_GN_A	200	N	LC	CI	-	OM	-	-	-	-	GENERADORA METROPOLITANA
07:34	-	NUEVARENCA	NUEVARENCA_TG1+TV1_GN_A	MT	N	LC	MT	-	OM	-	-	-	-	GENERADORA METROPOLITANA
07:34	-	LAUTARO-1	LAUTARO-1_BL1_COGEN	MT	N	-	MT	-	OM	-	-	-	-	COMASA
07:34	-	CAMPICHE	CAMPICHE_CAR	205	LF	-	CI	PCP	OM	-	-	-	-	AES GENER
07:46	-	SANISIDRO-2	SANISIDRO-2_TG1+TV1_FSTVU_GN_A	MT	N	LC	PS	-	OM	-	-	-	-	ENEL GENERACION
07:55	-	GUACOLDA-5	GUACOLDA-5_CAR	-	N	-	PC	-	OM	Finaliza pruebas	-	-	-	AES GENER
07:57	-	PEHUENCHE-2	PEHUENCHE	MT	N	-	PS	-	OM	Finaliza participación en control secundario de frecuencia AGC	-	N	-	ENEL GENERACION
08:00	-	CAMPICHE	CAMPICHE_CAR	MT	LF	-	MT	PCP	OM	-	-	-	-	AES GENER
08:00	-	NUEVAVENTANAS	NUEVAVENTANAS_CAR	205	LF	-	CI	PCP	OM	-	-	-	IL 2047	AES GENER
08:00	-	NORGENER-NTO1	NORGENER-NTO1_CAR	-	N	-	MT	-	OM	Cambio en La Política de Precios	-	-	-	AES GENER
08:00	-	ANDINA-CTA	ANDINA-CTA_CAR	MT	LF	-	MT	PCP	OM	Cambio en La Política de Precios	-	-	IL 1497	ENGIE
08:00	-	NORGENER-NTO2	NORGENER-NTO2_CAR	MT	N	-	MT	-	OM	Cambio en La Política de Precios	-	-	-	AES GENER
08:00	-	GUACOLDA-4	GUACOLDA-4_CAR	MT	LF	-	MT	PCP	OM	Cambio en La Política de Precios	-	-	IL 2031	AES GENER
08:00	-	GUACOLDA-3	GUACOLDA-3_CAR	MT	RO	-	MT	-	OM	Cambio en La Política de Precios	-	-	-	AES GENER
08:00	-	HORNITOS-CTH	HORNITOS-CTH_CAR	MT	LF	-	MT	PCP	OM	Cambio en La Política de Precios	-	-	IL 1504	ENGIE
08:03	-	PEHUENCHE-2	PEHUENCHE	0	DN	-	FS	-	OM	-	-	N	-	ENEL GENERACION
08:15	-	SANISIDRO-2	SANISIDRO-2_TG1_GN_A	MT	N	LC	PS	-	OM	Fuera de Servicio TV	-	-	-	ENEL GENERACION
08:20	-	NUEVAVENTANAS	NUEVAVENTANAS_CAR	250	LF	-	CI	PCP	OM	-	-	-	IL 2047	AES GENER
08:20	-	SANISIDRO-2	SANISIDRO-2_TG1_GN_A	0	DN	LC	FS	-	OM	Fuera de Servicio TG	-	-	-	ENEL GENERACION
08:30	-	PEHUENCHE-2	PEHUENCHE	-	DN	-	PP	-	OM	-	-	N	-	ENEL GENERACION
08:37	-	GUACOLDA-4	GUACOLDA-4_CAR	60	PO	-	CI	PCP	OT	Trabajos programados	-	-	SD 86727 - IL 2031	AES GENER
08:39	-	PEHUENCHE-2	PEHUENCHE	MT	N	-	AGC	-	AGC	Inicia participación en control secundario de frecuencia AGC	-	N	-	ENEL GENERACION
08:45	-	LAUTARO-1	LAUTARO-1_BL1_COGEN	PC	N	-	PC	-	OM	-	-	-	-	COMASA
08:45	-	CAMPICHE	CAMPICHE_CAR	160	LF	-	CI	PCP	OM	-	-	-	-	AES GENER
08:45	-	HORNITOS-CTH	HORNITOS-CTH_CAR	-	LF	-	PC	PCP	OM	-	-	-	IL 1504	ENGIE
08:45	-	GUACOLDA-3	GUACOLDA-3_CAR	PC	RO	-	PC	-	OM	Cumple tiempo estabilización a las 10:45 hrs, según IL 958	-	-	IL 1941	AES GENER
08:45	-	GUACOLDA-4	GUACOLDA-4_CAR	-	PO	-	PC	PCP	OM	Mantiene por Trabajos programados	-	-	IL 2031	AES GENER
08:45	-	NORGENER-NTO2	NORGENER-NTO2_CAR	PC	N	-	PC	-	OM	-	-	-	-	AES GENER
08:55	-	CAMPICHE	CAMPICHE_CAR	260	LF	-	CI	PCP	OM	Cumple tiempo de estabilización a las 11:10 Hrs	-	-	IL 2048	AES GENER
08:55	-	ANDINA-CTA	ANDINA-CTA_CAR	-	LF	-	PC	PCP	OM	-	-	-	IL 1497	ENGIE
08:55	-	NORGENER-NTO1	NORGENER-NTO1_CAR	PC	N	-	PC	-	OM	-	-	-	-	AES GENER
08:57	-	CANUTILLAR-2	CANUTILLAR	-	DN	-	PP	-	OM	-	-	N	-	COLBUN
09:00	-	HORNITOS-CTH	HORNITOS-CTH_CAR	-	LF	-	PC	PCP	OM	Cancelada IL 2046	-	-	IL 1504	ENGIE
09:02	-	CANUTILLAR-2	CANUTILLAR	MT	N	-	MT	-	OM	-	Inicio Ctx Lt 220 kV Cautín - Ciruelos	N	-	COLBUN
09:15	S/E LABERINTO 220 kV	-	-	-	-	-	-	-	SSCC-CT	S/E LABERINTO 220 kV: [-PFV BOLERO]. ABSORBER MÁXIMO REACTIVO.	-	-	-	-
09:15	S/E ENCUENTRO 220 kV	-	-	-	-	-	-	-	SSCC-CT	S/E ENCUENTRO 220 kV: [-PFV FINIS TERRAE, PFV C.DOMINADOR, PE SIERRA GORDA]. ABSORBER MÁXIMO REACTIVO.	-	-	-	-
09:15	S/E CRUCERO 220 kV	-	-	-	-	-	-	-	SSCC-CT	S/E CRUCERO 220 kV: [-PFV VALLE DE LOS VIENTOS]. ABSORBER MÁXIMO REACTIVO.	-	-	-	-
09:51	S/E TEN 220kV	-	-	-	-	-	-	-	SSCC-CT	S/E TEN 220kV: [-IEM-CTM3]. Bajar 3 kV.	-	-	-	-
10:00	-	CANUTILLAR-2	CANUTILLAR	-	N	-	MT	-	OM	-	Fin Ctx Lt 220 kV Cautín - Ciruelos	N	-	COLBUN
10:24	-	CANUTILLAR-2	CANUTILLAR	-	N	-	PC	-	OM	-	Fin Ctx Lt 220 kV Cautín - Ciruelos	N	-	COLBUN
10:34	-	RALCO-1	RALCO_sinv	0	DN	-	PP	-	OM	-	-	N	-	ENEL GENERACION
10:40	-	CANUTILLAR-1	CANUTILLAR	-	DN	-	PP	-	OM	-	-	N	-	COLBUN
10:43	-	RALCO-1	RALCO_sinv	0	N	-	MT	-	OM	Inicia participación en control secundario de frecuencia AGC	-	N	-	ENEL GENERACION
10:44	-	CANUTILLAR-2	CANUTILLAR	-	N	-	MT	-	OM	-	Fin Ctx Lt 220 kV Cautín - Ciruelos	N	-	COLBUN
10:45	-	GUACOLDA-1	GUACOLDA-1_CAR	75	PO	-	PC	PCP	OT	Trabajos programados	-	-	SD 78677	AES GENER
11:05	-	CIPRESES-1	CIPRESES_sinv	16	N	-	CI	-	RE	A solicitud de la DOH.	-	N	IL 1876	ENEL GENERACION
11:05	-	CIPRESES-3	CIPRESES_sinv	16	N	-	CI	-	RE	A solicitud de la DOH.	-	N	IL 1876	ENEL GENERACION
11:19	S/E LABERINTO 220 kV	-	-	-	-	-	-	-	SSCC-CT	S/E LABERINTO 220 kV: [-PFV BOLERO]. INYECTAR MÁXIMO REACTIVO.	-	-	-	-
11:44	-	**MOV. CMG**	-	-	-	-	-	-	-	Movimiento para estimar CMG horario	-	-	-	CDC
11:53	-	RALCO-1	RALCO_sinv	0	N	-	PS	-	OM	Finaliza participando en control de frecuencioa secundario AGC.	-	N	-	ENEL GENERACION
11:56	-	RALCO-1	RALCO_sinv	0	DN	-	FS	-	OM	-	-	N	-	ENEL GENERACION
12:00	-	CANUTILLAR-1	CANUTILLAR	50	N	-	CI	-	OM	-	-	N	-	COLBUN
12:00	-	CANUTILLAR-2	CANUTILLAR	50	N	-	CI	-	OM	-	-	N	-	COLBUN
12:05	-	CAMPICHE	CAMPICHE_CAR	PC	N	-	PC	-	OM	Cancelada IL 2048	-	-	-	AES GENER
12:34	-	TARAPACA-CTTAR	TARAPACA-CTTAR_CAR	110	LF	-	PC	PCP	SICF	Inicia hora de prueba según SICF 92002	-	-	SICF 92002 - IL 1871 - IL 1842	CELTA
13:04	-	PEHUENCHE-2	PEHUENCHE	MT	N	-	PS	-	OM	Finaliza participación en control secundario de frecuencia AGC	-	N	-	ENEL GENERACION
13:07	-	PEHUENCHE-2	PEHUENCHE	0	DN	-	FS	-	OM	-	-	N	-	ENEL GENERACION

Ultima Actualización:	14-12-2019	23:56												
Hora Movi.	Equipo / Instalación	Central-Unidad	Configuración	MW Actual	Estado Operacional	EO Combustibles	Consigna	Consigna Limitación	Instrucción Condición	Motivo Comentario	Zona Desacople	Condición del Embalse	Neomante	Centro de Control
13:13	-	CANUTILLAR-1	CANUTILLAR	50	N	-	CI	-	OM	-	Ctx Lt 220 kV Cautín - Ciruelos	N	-	COLBUN
13:13	-	CANUTILLAR-2	CANUTILLAR	50	N	-	CI	-	OM	-	Ctx Lt 220 kV Cautín - Ciruelos	N	-	COLBUN
13:34	-	TARAPACA-CTTAR	TARAPACA-CTTAR_CAR	-	LF	-	PC	PCP	OM	Finaliza hora de prueba y cancelada SICF 92002	-	-	IL 1871 - IL 1842	CELTA
13:35	-	GUACOLDA-1	GUACOLDA-1_CAR	147	LF	-	PC	PCP	OM	Finaliza trabajos programados y continuia limitada	-	-	IL 1737	AES GENER
13:57	-	TOTAL ERNC EÓLICO	Zona Norte	-35	-	-	-	-	-	Inicio Ctx Lt 220 kV Paposo - Diego de Almagro .	Ctx Lt 220 kV Paposo - Diego de Almagro .	-	-	CDC
13:57	-	PFV-LALACKAMA	PFV-LALACKAMA	62	N	-	CI	-	OM	-	Ctx Lt 220 kV Paposo - Diego de Almagro .	-	-	ENEL GREEN POWER
13:57	-	PFV-PAMPASOLARNORTE	PFV-PAMPASOLARNORTE	65	N	-	CI	-	OM	-	Ctx Lt 220 kV Paposo - Diego de Almagro .	-	-	ENEL GREEN POWER
13:57	-	PFV-CONEJO	PFV-CONEJO	95	N	-	CI	-	OM	-	Ctx Lt 220 kV Paposo - Diego de Almagro .	-	-	ENOR CHILE
13:57	-	PE-TALTAL	PE-TALTAL	65	N	-	CI	-	OM	-	Ctx Lt 220 kV Paposo - Diego de Almagro .	-	-	ENEL GREEN POWER
14:54	-	CAMPICHE	CAMPICHE_CAR	205	N	-	CI	-	OM	-	-	-	-	AES GENER
14:54	-	NORGENER-NTO1	NORGENER-NTO1_CAR	MT	N	-	MT	-	OM	-	-	-	-	AES GENER
14:57	-	ANDINA-CTA	ANDINA-CTA_CAR	-	LF	-	MT	PCP	OM	-	-	-	IL 1497	ENGIE
14:58	-	CANUTILLAR-1	CANUTILLAR	MT	N	-	MT	-	OM	-	Ctx Lt 220 kV Cautín - Ciruelos	N	-	COLBUN
14:58	-	CANUTILLAR-2	CANUTILLAR	MT	N	-	MT	-	OM	-	Ctx Lt 220 kV Cautín - Ciruelos	N	-	COLBUN
15:04	-	ANGOSTURA-3	RALCO_sinv	-	DN	-	PP	-	RE	-	-	-	-	COLBUN
15:08	-	ANGOSTURA-2	RALCO_sinv	MT	N	-	PS	-	CPF	Finaliza participando en control primario de frecuencia.	-	-	-	COLBUN
15:08	-	ANGOSTURA-3	RALCO_sinv	MT	N	-	MT	-	RE	-	-	-	-	COLBUN
15:10	-	ANGOSTURA-2	RALCO_sinv	0	DN	-	FS	-	RE	-	-	-	-	COLBUN
15:25	-	CAMPICHE	CAMPICHE_CAR	220	N	-	CI	-	OM	-	-	-	-	AES GENER
15:36	-	TOTAL ERNC EÓLICO	Zona Norte	-160	-	-	-	-	OM	Inicio Ctx Lt 220 kV Los Vilos - Nogales.	Ctx Lt 220 kV Los Vilos - Nogales.	-	-	CDC
15:36	-	PE-CANELA	PE-CANELA	7	-	-	-	-	OM	-	Ctx Lt 220 kV Los Vilos - Nogales.	-	-	ENEL GREEN POWER
15:36	-	PE-CANELA-2	PE-CANELA-2	24	-	-	-	-	OM	-	Ctx Lt 220 kV Los Vilos - Nogales.	-	-	ENEL GREEN POWER
15:36	-	PE-ELARRAYAN	PE-ELARRAYAN	41	-	-	-	-	OM	-	Ctx Lt 220 kV Los Vilos - Nogales.	-	-	ENOR CHILE
15:36	-	PE-PSIERRA	PE-PUNTASIERRA	41	-	-	-	-	OM	-	Ctx Lt 220 kV Los Vilos - Nogales.	-	-	PACIFHIDRO
15:36	-	PE-LOSCURUROS	PE-LOSCURUROS	45	-	-	-	-	OM	-	Ctx Lt 220 kV Los Vilos - Nogales.	-	-	LOS CURUROS
15:36	-	PE-MONTEREDONDO	PE-MONTEREDONDO	19	-	-	-	-	OM	-	Ctx Lt 220 kV Los Vilos - Nogales.	-	-	MONTEREDONDO
15:36	-	PE-PUNTACOLORADA	PE-PUNTACOLORADA	7	-	-	-	-	OM	-	Ctx Lt 220 kV Los Vilos - Nogales.	-	-	ENOR CHILE
15:36	-	PE-PUNTAPALMERAS	PE-PUNTAPALMERAS	18	-	-	-	-	OM	-	Ctx Lt 220 kV Los Vilos - Nogales.	-	-	ACCIONA
15:36	-	PE-TALINAYORIENTE	PE-TALINAYORIENTE	20	-	-	-	-	OM	-	Ctx Lt 220 kV Los Vilos - Nogales.	-	-	ENEL GREEN POWER
15:36	-	PE-TALINAYPONIENTE	PE-TALINAYPONIENTE	25	-	-	-	-	OM	-	Ctx Lt 220 kV Los Vilos - Nogales.	-	-	ENEL GREEN POWER
15:36	-	PE-TOTORAL	PE-TOTORAL	18	-	-	-	-	OM	-	Ctx Lt 220 kV Los Vilos - Nogales.	-	-	LAP
15:36	-	PE-SANJUAN	PE-SANJUAN	75	-	-	-	-	OM	-	Ctx Lt 220 kV Los Vilos - Nogales.	-	-	LAP
15:36	-	PFV-ELPELICANO	PFV-ELPELICANO	75	-	-	-	-	OM	-	Ctx Lt 220 kV Los Vilos - Nogales.	-	-	EL PELICANO
15:36	-	PFV-DOÑACARMEN	PFV-DOÑACARMEN	16	-	-	-	-	OM	-	Ctx Lt 220 kV Los Vilos - Nogales.	-	-	IMELSA CREEL
15:46	-	CANUTILLAR-1	CANUTILLAR	MT	N	-	PS	-	OM	-	Ctx Lt 220 kV Cautín - Ciruelos	N	-	COLBUN
15:46	-	CANUTILLAR-2	CANUTILLAR	50	N	-	CI	-	OM	-	Ctx Lt 220 kV Cautín - Ciruelos	N	-	COLBUN
15:50	-	CANUTILLAR-1	CANUTILLAR	0	DN	-	FS	-	OM	-	Ctx Lt 220 kV Cautín - Ciruelos	N	-	COLBUN
16:00	-	CAMPICHE	CAMPICHE_CAR	PC	N	-	PC	-	OM	-	-	-	-	AES GENER
16:01	-	ANDINA-CTA	ANDINA-CTA_CAR	PC	LF	-	PC	PCP	OM	-	-	-	IL 1497	ENGIE
16:05	-	CANUTILLAR-2	CANUTILLAR	MT	N	-	MT	-	OM	-	Ctx Lt 220 kV Cautín - Ciruelos	N	-	COLBUN
16:50	-	RALCO-2	RALCO_sinv	MT	N	-	PS	-	OM	Finaliza participación en control secundario de frecuencia AGC	-	N	-	ENEL GENERACION
16:53	-	ANDINA-CTA	ANDINA-CTA_CAR	MT	LF	-	MT	PCP	OM	-	-	-	IL 1498	ENGIE
16:55	-	RALCO-2	RALCO_sinv	0	DN	-	FS	-	OM	-	-	N	-	ENEL GENERACION
16:56	-	CAMPICHE	CAMPICHE_CAR	205	N	-	CI	-	OM	-	-	-	-	AES GENER
16:59	-	CANUTILLAR-2	CANUTILLAR	-	N	-	AGC	-	AGC	Inicia participación en control secundario de frecuencia AGC	Ctx Lt 220 kV Cautín - Ciruelos	N	-	COLBUN
17:07	-	NORGENER-NTO2	NORGENER-NTO2_CAR	MT	N	-	MT	-	OM	-	-	N	-	AES GENER
17:07	-	GUACOLDA-4	GUACOLDA-4_CAR	-	PO	-	MT	PCP	OM	Mantiene por Trabajos programados	-	-	SD 86727 - IL 2031 - IL 2051	AES GENER
17:07	-	CAMPICHE	CAMPICHE_CAR	137	N	-	CI	-	OM	No Continúa bajando por piempo de estabilización	-	-	-	AES GENER
17:07	-	LAUTARO-1	LAUTARO-1_BL1_COGEN	MT	N	-	MT	-	OM	-	-	-	-	COMASA
17:19	-	GUACOLDA-3	GUACOLDA-3_CAR	-	RO	-	PC	-	OM	No baja por tiempo de estabilización y pronto retiro del recurso ERNC	-	-	IL 1941	AES GENER
17:19	-	HORNITOS-CTH	HORNITOS-CTH_CAR	MT	LF	-	MT	PCP	OM	-	-	-	-	ENGIE
17:28	-	ANTUCO-1	ELTORO_sinv	MT	PO	-	MT	-	SDCF	-	-	-	-	ENEL GENERACION
17:38	S/E CHARRUA 220 kV	-	-	-	-	-	-	-	SSCC-CT	S/E CHARRUA 220 kV: [-ELTORO-ANTUCO-BOCAMINA 2-PANGUE]. Bajar 3 kV.	-	-	-	-
17:47	-	NUEVAVENTANAS	NUEVAVENTANAS_CAR	205	LF	-	CI	PCP	OM	-	-	-	IL 2047	AES GENER
18:00	-	NUEVAVENTANAS	NUEVAVENTANAS_CAR	250	LF	-	CI	PCP	OM	-	-	-	IL 2047	AES GENER
18:00	-	CELCO	CELCO_BL1_COGEN	MT	N	-	MT	-	OM	Cambio en La Politica de Precios	-	-	-	ARAUCO
18:00	-	NEHUENCO-2	NEHUENCO-2_TG1+TV1_GN_A	-	N	LC	PC	-	SICF	No baja por tiempo de estabilización y pronto retiro del recurso ERNC	-	-	-	COLBUN
18:00	-	HORNITOS-CTH	HORNITOS-CTH_CAR	PC	LF	-	PC	PCP	OM	-	-	-	IL 1504	ENGIE
18:00	-	NORGENER-NTO2	NORGENER-NTO2_CAR	PC	N	-	PC	-	OM	Cambio en La Politica de Precios	-	-	-	AES GENER
18:00	-	GUACOLDA-2	GUACOLDA-2_CAR	PC	LF	-	PC	PCP	OM	Cambio en La Politica de Precios no baja por tiempo de estabilización y pronto retiro del recurso ERNC	-	-	IL 1845 - IL 1937	AES GENER
18:03	-	ARAUCO	ARAUCO_COGEN	0	FE	-	OI	-	OM	-	-	-	-	ARAUCO
18:10	-	COLBUN-2	COLBUN_sinv	-	DN	-	PP	-	RE	Control Cota MACHICURA	-	A	-	COLBUN
18:15	-	ARAUCO	ARAUCO_COGEN	PC	N	-	PC	-	OM	-	-	-	-	ARAUCO
18:20	-	ANTUCO-1	ELTORO_sinv	0	PO	-	FS	-	SDCF	-	-	-	-	ENEL GENERACION
18:22	-	GUACOLDA-4	GUACOLDA-4_CAR	80	LF	-	MT	PCP	OM	Finaliza Trabajos programados no baja por tiempo de estabilización por pronto retiro de recurso ERNC y pronta subida de demanda	-	-	IL 2031 - IL 2051	AES GENER
18:24	-	COLBUN-2	COLBUN_sinv	MT	N	-	AGC	-	AGC	Inicia participación en control secundario de frecuencia AGC	-	A	-	COLBUN
18:27	-	NOTA CDC	Zona Norte	-	-	-	-	-	-	Finaliza Ctx Lt 220 kV Paposo - Diego de Almagro .	-	-	-	CDC
18:55	-	NORGENER-NTO1	NORGENER-NTO1_CAR	PC	N	-	PC	-	OM	-	-	-	-	AES GENER
19:00	-	COLBUN-1	COLBUN_sinv	-	DN	-	PP	-	RE	Control Cota MACHICURA	-	A	-	COLBUN
19:03	-	CELCO	CELCO_BL1_COGEN	PC	N	-	PC	-	OM	-	-	-	-	ARAUCO
19:04	-	ANDINA-CTA	ANDINA-CTA_CAR	-	LF	-	PC	PCP	OM	-	-	-	-	ENGIE
19:04	-	GUACOLDA-4	GUACOLDA-4_CAR	PC	LF	-	PC	PCP	OM	-	-	-	IL 2031 - IL 2051	AES GENER
19:05	-	PFV-ELPELICANO	PFV-ELPELICANO	-	-	-	-	-	-	Finaliza prorrata por bajada recurso ERNC	-	-	-	EL PELICANO
19:12	-	COLBUN-1	COLBUN_sinv	MT	N	-	AGC	-	AGC	Inicia participación en control secundario de frecuencia AGC	-	A	-	COLBUN
19:14	-	CAMPICHE	CAMPICHE_CAR	PC	N	-	PC	-	OM	-	-	-	-	AES GENER
19:14	-	LAUTARO-1	LAUTARO-1_BL1_COGEN	PC	N	-	PC	-	OM	-	-	-	-	COMASA
19:14	-	NUEVARENCA	NUEVARENCA_TG1+TV1_GN_A	250	N	LC	CI	-	OM	-	-	-	-	GENERADORA METROPOLITANA
19:22	-	NOTA CDC	Zona Norte	-	-	-	-	-	-	Finaliza Ctx Lt 220 kV Los Vilos - Nogales.	-	-	-	CDC
19:25	-	CHOLGUAN	CHOLGUAN_BL1_COGEN	PC	N	-	PC	-	OM	-	-	-	-	ARAUCO
19:25	-	NUEVARENCA	NUEVARENCA_TG1+TV1_GN_A	PC	N	LC	PC	-	OM	-	-	-	-	GENERADORA METROPOLITANA
19:25	-	RALCO-2	RALCO_sinv	-	DN	-	PP	-	OM	-	-	N	-	ENEL GENERACION
19:33	S/E CHARRUA 220 kV	-	-	-	-	-	-	-	SSCC-CT	S/E CHARRUA 220 kV: [-ELTORO-ANTUCO-PANGUE]. Bajar 3 kV.	-	-	-	-
19:33	S/E COLBUN 220 kV	-	-	-	-	-	-	-	SSCC-CT	S/E COLBUN 220 kV: [-COLBUN]. Bajar 3 kV.	-	-	-	-
19:33	S/E MULCHEN 220 kV	-	-	-	-	-	-	-	SSCC-CT	S/E MULCHEN 220 kV: [-ANGOSTURA]. Bajar 3 kV.	-	-	-	-
19:33	-	RALCO-2	RALCO_sinv	MT	N	-	MT	-	OM	-	-	N	-	ENEL GENERACION
19:40	-	RALCO-2	RALCO_sinv	-	N	-	AGC	-	AGC	Inicia participación en control secundario de frecuencia AGC	-	N	-	ENEL GENERACION
19:41	-	CANUTILLAR-2	CANUTILLAR	0	DN	-	FS	-	OM	Finaliza participación en control secundario de frecuencia AGC	-	N	-	COLBUN
20:29	-	NUEVAVENTANAS	NUEVAVENTANAS_CAR	PC	N	-	PC	-	OM	Cancelada Limitación IL 2047.	-	-	-	AES GENER
20:43	-	PEHUENCHE-2	PEHUENCHE	-	DN	-	PP	-	OM	-	-	N	-	ENEL GENERACION
20:46	-	ANGOSTURA-1	RALCO_sinv	-	DN	-	PP	-	RE	Control Cota ANGOSTURA	-	-	-	COLBUN
20:51	-	ANGOSTURA-1	RALCO_sinv	MT	N	-	MT	-	CPF	Inicia participando en control primario de frecuencia.	-	-	-	COLBUN
20:52	-	PEHUENCHE-2	PEHUENCHE	MT	N	-	MT	-	OM	-	-	N	-	ENEL GENERACION
21:01	-	PEHUENCHE-2	PEHUENCHE	-	N	-	AGC	-	AGC	Inicia participación en control secundario de frecuencia AGC	-	N	-	ENEL GENERACION
21:16	-	COLBUN-1	COLBUN_sinv	PC	N	-	PC	-	RE	Finaliza participación en control secundario de frecuencia AGC	-	A	-	COLBUN
21:45	-	CANUTILLAR-1	CANUTILLAR	-	DN	-	PP	-	OM	-	-	N	-	COLBUN
21:50	-	CANUTILLAR-1	CANUTILLAR	MT	N	-	MT	-	OM	-	-	N	-	COLBUN
22:27	S/E ANGAMOS 220 kV	-	-	-	-	-	-	-	SSCC-CT	S/E ANGAMOS 220 kV: [-ANGAMOS]. Subir 2 kV.	-	-	-	-
22:40	-	GUACOLDA-4	GUACOLDA-4_CAR	135	LF	-	PC	PCP	OM	Cancelada IL 2031	-	-	IL 2055	AES GENER
23:10	-	CANUTILLAR-1	CANUTILLAR	0	DN	-	FS	-	OM	-	-	N	-	COLBUN
23:22	-	COLBUN-1	COLBUN_sinv	180	N	-	CI	-	RE	Control Cota MACHICURA	-	A	-	COLBUN
23:23	-	ANGOSTURA-3	RALCO_sinv	0	DN	-	FS	-	RE	Control Cota ANGOSTURA	-	-	-	COLBUN
23:29	-	PEHUENCHE-2	PEHUENCHE	0	DN	-	FS	-	OM	Finaliza participación en control secundario de frecuencia AGC	-	N	-	ENEL GENERACION
23:50	-	COLBUN-1	COLBUN_sinv	MT	N	-	MT	-	RE	Control Cota MACHICURA	-	A	-	COLBUN

COORDINADOR
ELÉCTRICO NACIONAL

INFORME DIARIO

Sábado 14 de Diciembre del 2019

DESVIACIONES DE LA PROGRAMACION

1.1. Centrales

Centrales	Prog.	Real	Desv %	Estado
Abanico	821.4	797.0	-2.98 %	
Aguas Blancas Diésel	0.0	0.0	-	
Alfalfal	3105.0	2480.3	-20.12 %	
Alto Renaico	0.0	24.0	-	PMG
Ancoa	528.7	528.2	-0.10 %	
Andes Diésel	0.0	0.0	-	
Andes FO6	0.0	0.0	-	
Andina-CTA	3852.1	3723.0	-3.35 %	IL
Angamos-ANG1	4458.5	5582.3	(*) +25.21 %	
Angamos-ANG2	6501.1	5589.5	-14.02 %	
Angostura	1481.5	2261.0	+52.62 %	
Antilhue	0.0	0.0	-	IL
Antuco	3840.0	3201.0	-16.64 %	SDCF, IL
Arauco	168.0	123.2	-26.65 %	
Arica-GMAR	0.0	0.0	-	
Arica-M1AR	0.0	0.0	-	
Arica-M2AR	0.0	0.0	-	
Atacama-1 Diésel	0.0	0.0	-	
Atacama-1 GNL	0.0	0.0	-	
Atacama-2 Diésel	0.0	0.0	-	
Atacama-2 GNL	0.0	0.0	-	
Bess Andes	-	9.3	GNP	
Bess Angamos	-	8.1	GNP	
Bess Cochrane	-	0.2	GNP	
Blanco	760.0	553.9	-27.12 %	
Bocamina	0.0	0.0	-	
Bocamina 2	4201.2	4487.0	+6.80 %	
CMPC Cordillera	0.0	57.3	GNP	
CMPC Laja	120.0	516.5	+330.42 %	
CMPC Pacífico	288.0	392.1	+36.15 %	
CMPC Santa Fe	0.0	218.6	GNP	
CMPC Tissue	-	10.6	-	PMG
Callao	10.1	10.0	-1.92 %	PMG
Calle Calle	0.0	0.0	-	IF
Campiche	6103.3	5674.0	-7.03 %	IL
Candelaria 1 Diésel	0.0	0.0	-	
Candelaria 1 GNL	0.0	0.0	-	
Candelaria 1 Gas Arg	0.0	0.0	-	
Candelaria 2 Diésel	0.0	0.0	-	
Candelaria 2 GNL	0.0	0.0	-	
Candelaria 2 Gas Arg	0.0	0.0	-	
Canutillar	2859.2	1042.0	(*) -63.56 %	IL

Centrales	Prog.	Real	Desv %	Estado
Maitenes	288.5	290.0	+0.51 %	IF
Malalcahuello	0.0	0.0	-	SDCF
Mampil	314.0	276.0	-12.11 %	
Mantos Blancos-MIMB	0.0	0.0	-	
Mariposas	67.2	73.6	+9.52 %	PMG
Masisa	127.2	134.1	+5.42 %	IL
Maule	0.0	0.0	-	
Mejillones-CTM1	0.0	0.0	-	
Mejillones-CTM1 Fuel Oil	-	0.0	-	
Mejillones-CTM2	0.0	0.0	-	
Mejillones-CTM3 Diésel	0.0	0.0	-	
Mejillones-CTM3 GNL	5904.0	5553.0	-5.95 %	
Mejillones-CTM3 Gas Arg	0.0	-	-	
Mejillones-PAM	584.6	394.3	-32.56 %	
Nalcas	66.7	67.0	+0.34 %	PMG
Nehuenco 1 Diésel	0.0	0.0	-	IL
Nehuenco 1 GNL	0.0	0.0	-	
Nehuenco 1 Gas Arg	0.0	0.0	-	
Nehuenco 2 Diésel	0.0	0.0	-	IL
Nehuenco 2 GNL	0.0	0.0	-	
Nehuenco 2 Gas Arg	9277.3	9073.0	-2.20 %	
Nehuenco 9B Diésel	0.0	0.0	-	
Nehuenco 9B GNL	0.0	0.0	-	
Nehuenco 9B Gas Arg	0.0	0.0	-	
Newen Diésel	0.0	0.0	-	
Newen Gas	0.0	0.0	-	
Newen Gas Arg	0.0	0.0	-	
Newen Propano	0.0	-	-	
Norgener-NTO1	3323.5	2863.5	-13.84 %	
Norgener-NTO2	3228.5	3076.2	-4.72 %	
Norgener-NTO2 Fuel Oil	-	0.0	-	
Nueva Aldea 1	336.0	157.7	-53.07 %	
Nueva Aldea 2	0.0	0.0	-	
Nueva Aldea 3	720.0	839.1	+16.54 %	
Nueva Renca Diésel	0.0	0.0	-	
Nueva Renca GNL	0.0	0.0	-	IL
Nueva Renca Gas Arg	6111.5	5916.0	-3.20 %	
Nueva Ventanas	6528.0	6027.0	-7.67 %	IL
Ojos de Agua	110.8	111.6	+0.73 %	PMG
Olivos	0.0	0.0	-	
Palacios	46.5	23.5	-49.42 %	PMG
Palmucho	720.0	726.0	+0.83 %	

Centrales	Prog.	Real	Desv %	Estado
Capullo	0.0	0.7	GNP	PMM
Cardones	0.0	0.0	-	
Carena	0.0	0.0	-	PMG, IF
Carilafquén	0.0	0.0	-	PMM
Celco	120.0	184.4	+53.69 %	
Cementos Bío Bío	0.0	0.0	-	
Cenizas	0.0	0.0	-	IF
Chacabuquito	338.0	359.3	+6.30 %	
Chacayes	1880.0	1252.7	-33.37 %	
Chapiquiña	125.0	128.9	+3.12 %	
Chiburgo	323.0	323.0	-	PMG
Chiloé	0.0	0.0	-	PMG
Cholguán	96.0	7.0	-92.72 %	
Cholguán IFO	-	0.0	-	
Chuyaca	0.0	0.0	-	IL
Cipreses	985.7	711.0	-27.87 %	IL
Cipresillos	-	0.0	-	PMG
Cochrane-CCH1	6027.4	5424.8	-10.00 %	
Cochrane-CCH2	5307.1	5416.4	+2.06 %	
Cogen. Aconcagua	-	0.0	-	
Colbún	3205.5	2539.0	-20.79 %	
Colihues Diésel	-	0.0	-	
Colihues HFO	0.0	0.0	-	
Colmito Diésel	0.0	0.0	-	IF
Colmito GNL	0.0	0.0	-	
Concón	0.0	0.0	-	PMG
Constitución	0.0	0.0	-	PMG
Contulmo	-	0.0	-	PMG
Convento Viejo	80.9	79.8	-1.35 %	
Coronel Diésel	0.0	0.0	-	
Coronel GNL	0.0	0.0	-	
Coronel Gas Arg	0.0	0.0	-	
Coya	0.0	0.0	-	
Cumbres	211.5	232.2	+9.79 %	
Curillinque	1896.4	1811.0	-4.50 %	
Degañ	0.0	0.0	-	
Degañ 2	0.0	0.0	-	
Diego de Almagro	0.0	0.0	-	
Dos Valles	0.0	37.0	-	PMG
El Paso	500.0	185.2	-62.96 %	
El Peñón	0.0	0.0	-	
El Rincón	6.0	6.0	-	PMG
El Salvador	0.0	0.0	-	
El Toro	6313.5	6113.0	-3.18 %	IL
El Totoral	0.0	0.0	-	PMG
Emelda 1	0.0	0.0	-	
Emelda 2	0.0	0.0	-	
Enaex-CUMMINS	0.0	0.0	-	
Enaex-DEUTZ	0.0	0.0	-	
Energía Pacífico	384.0	349.4	-9.02 %	
Escuadrón	0.0	0.0	-	

Centrales	Prog.	Real	Desv %	Estado
Pangue	1955.0	3012.0	+54.06 %	IL
Pehuenche	6184.6	2532.0	(*) -59.06 %	
Petropower	1560.0	1267.5	-18.75 %	
Peuchén	428.0	411.9	-3.76 %	
Picoiquén	111.6	122.5	+9.78 %	
Pilmaiquén	744.0	745.3	+0.18 %	IL
Placilla	0.0	0.0	-	PMG
Planta Valdivia	504.0	311.4	-38.22 %	
Providencia	36.0	40.8	+13.33 %	
Pulelfu	112.8	108.5	-3.81 %	PMG
Pullinque	400.0	366.3	-8.42 %	
Punta Colorada Diésel	0.0	0.0	-	
Punta Colorada IFO	0.0	0.0	-	
Puntilla	293.4	302.1	+2.97 %	
Queltehues	943.0	884.4	-6.22 %	
Quilleco	900.2	673.0	-25.24 %	
Quintay	0.0	0.0	-	PMG
Quintero 1A Diésel	0.0	0.0	-	IL
Quintero 1A GNL	0.0	0.0	-	
Quintero 1A Gas Arg	0.0	0.0	-	
Quintero 1B Diésel	0.0	0.0	-	IL
Quintero 1B GNL	0.0	0.0	-	
Quintero 1B Gas Arg	0.0	0.0	-	
Ralco	4201.0	4507.0	+7.28 %	IL
Rapel	0.0	0.0	-	
Renaico	96.5	118.9	+23.20 %	PMG
Renca	0.0	0.0	-	
Rucatayo	817.0	820.4	+0.41 %	
Rucúe	2094.9	1625.0	-22.43 %	
Río Colorado	157.2	163.4	+3.94 %	
Río Huasco	54.5	53.8	-1.36 %	
SF Energía	0.0	0.0	-	PMMep
San Andrés	840.0	509.6	-39.33 %	
San Clemente	96.0	91.2	-5.00 %	PMG
San Gregorio	0.0	0.0	-	PMG
San Ignacio	0.0	0.0	-	
San Isidro 1 Diésel	0.0	0.0	-	IL
San Isidro 1 GNL	0.0	0.0	-	
San Isidro 1 Gas Arg	0.0	0.0	-	
San Isidro 2 Diésel	0.0	0.0	-	
San Isidro 2 GNL	0.0	0.0	-	
San Isidro 2 Gas Arg	2826.5	2423.0	-14.28 %	
San Lorenzo 1	0.0	0.0	-	
San Lorenzo 2	0.0	0.0	-	
San Lorenzo 3	0.0	0.0	-	
Santa Lidia	0.0	0.0	-	
Santa Marta	240.0	191.6	-20.17 %	
Santa María	0.0	8576.0	(*)GNP	IF
Sauzal	1275.4	1059.0	-16.97 %	
Sauzal 60 Hz	-	0.0	-	
Sauzalito	237.2	209.0	-11.89 %	

Centrales	Prog.	Real	Desv %	Estado
Esperanza-DS1	0.0	0.0	-	
Esperanza-DS2	0.0	0.0	-	
Esperanza-TG1	0.0	0.0	-	
Espinos	0.0	0.0	-	
Eólica Aurora	778.8	301.6	-61.27 %	
Eólica Cabo Leones	652.7	1121.7	+71.85 %	
Eólica Canela	104.4	110.9	+6.29 %	
Eólica Canela 2	440.8	456.8	+3.63 %	
Eólica Cuel	184.0	210.0	+14.13 %	
Eólica El Arrayán	834.6	1257.5	+50.68 %	
Eólica La Esperanza	72.1	41.2	-42.89 %	PMG
Eólica La Flor	-	193.9	GNP	
Eólica Lebu	54.3	15.9	-70.72 %	PMG
Eólica Los Buenos Aires	161.5	179.6	+11.22 %	
Eólica Los Cururos	334.3	881.8	+163.76 %	
Eólica Monte Redondo	227.1	371.7	+63.68 %	
Eólica Punta Colorada	52.7	94.5	+79.18 %	IF
Eólica Punta Palmeras	357.3	474.5	+32.79 %	
Eólica Punta Sierra	761.1	1007.9	+32.43 %	
Eólica Renaico	623.5	781.4	+25.33 %	
Eólica San Gabriel	1287.6	1785.5	+38.67 %	
Eólica San Juan	442.8	1583.4	(*) +257.56 %	
Eólica San Pedro	21.4	72.0	+236.21 %	
Eólica San Pedro 2	79.5	132.7	+66.94 %	SDCF
Eólica Sarco	0.0	0.0	-	
Eólica Sierra Gorda	889.3	787.7	-11.43 %	
Eólica Talinay Oriente	774.1	682.7	-11.81 %	
Eólica Talinay Poniente	574.6	780.6	+35.84 %	
Eólica Taltal	867.2	821.0	-5.33 %	
Eólica Totoral	308.8	389.9	+26.27 %	
Eólica Ucuquer 2	112.0	77.1	-31.20 %	
Eólica Valle de los Vientos	776.9	781.5	+0.59 %	
Florida	176.2	175.1	-0.62 %	
Geotérmica Cerro Pabellón	0.0	578.8	GNP	
Guacolda 1	3312.0	3444.0	+3.99 %	IL
Guacolda 2	3504.0	3569.0	+1.86 %	IL
Guacolda 3	3508.9	3523.0	+0.40 %	IL
Guacolda 4	1740.0	2082.0	+19.66 %	IL
Guacolda 5	0.0	3133.0	(*)GNP	SDCF, IL
Guayacán	204.3	173.3	-15.19 %	
Horcones Diésel	0.0	0.0	-	
Horcones TG	-	0.0	-	
Hornitos	622.0	612.1	-1.59 %	
Hornitos-CTH	4009.0	3339.0	-16.71 %	IL
Huasco	0.0	0.0	-	
Huasco TG IFO	0.0	-	-	
IE Mejillones	8352.6	8830.0	+5.72 %	
Inacal	0.0	0.0	-	
Isla	1579.2	1502.0	-4.89 %	
Itata	0.0	0.0	-	

Centrales	Prog.	Real	Desv %	Estado
Solar Aguila 1	13.5	14.0	+3.76 %	
Solar Andes	230.5	224.3	-2.71 %	
Solar Antay	70.2	78.1	+11.27 %	PMG
Solar Carrera Pinto	780.8	900.7	+15.36 %	
Solar Cerro Dominador	1068.5	1053.8	-1.38 %	
Solar Chañares	343.0	340.2	-0.81 %	
Solar Diego de Almagro	254.4	256.1	+0.66 %	
Solar Doña Carmen	192.2	197.8	+2.90 %	
Solar El Pelícano	1081.5	1035.0	-4.30 %	
Solar El Pilar - Los Amarillos	0.0	0.0	-	PMG
Solar El Romero	1505.2	1517.4	+0.81 %	
Solar FV Bolero	1379.7	1334.3	-3.29 %	
Solar Finis Terrae	1235.9	1265.5	+2.40 %	
Solar Huatacondo	910.4	701.2	-22.98 %	
Solar Jama	597.6	560.3	-6.24 %	
Solar Javiera	657.1	684.9	+4.23 %	
Solar La Huayca 2	0.0	0.0	-	IF
Solar La Silla	15.9	17.4	+9.12 %	
Solar Lalackama	626.0	531.9	-15.03 %	
Solar Lalackama 2	140.3	162.5	+15.84 %	
Solar Llano de Llampos	952.6	968.3	+1.65 %	
Solar Loma Los Colorados	12.2	0.0	-100.00 %	PMG
Solar Los Loros	355.2	336.2	-5.35 %	
Solar Luz del Norte	1524.7	1499.0	-1.69 %	
Solar María Elena	611.3	616.7	+0.89 %	
Solar PV Conejo	1177.4	1120.1	-4.87 %	
Solar PV Salvador	695.2	685.9	-1.34 %	
Solar Pampa Camarones	51.6	45.0	-12.72 %	
Solar Pampa Solar Norte	761.2	691.4	-9.17 %	
Solar Piloto Cardones	1.5	1.9	+23.38 %	PMG
Solar Pozo Almonte 2	69.0	73.9	+7.15 %	
Solar Pozo Almonte 3	146.6	158.5	+8.15 %	
Solar Puerto Seco	93.5	103.0	+10.20 %	PMG
Solar Quilapilún	787.8	490.9	-37.69 %	
Solar SDGx01	7.7	6.7	-13.64 %	PMG
Solar San Andrés	434.1	443.4	+2.15 %	
Solar Santiago	882.6	454.1	-48.55 %	
Solar Uribe	556.5	573.0	+2.97 %	
Taltal 1 Diésel	0.0	0.0	-	
Taltal 1 GNL	0.0	0.0	-	
Taltal 2 Diésel	0.0	0.0	-	
Taltal 2 GNL	0.0	0.0	-	IL
Tamaya-Suta	0.0	0.0	-	
Tarapacá-CTTAR	1940.0	2316.0	+19.38 %	IL
Tarapacá-CTTAR Fuel Oil	-	0.0	-	
Tarapacá-TGTAR	0.0	0.0	-	
Teno	0.0	0.0	-	
Teno Gas 50	-	0.0	-	
Termopacífico	0.0	0.0	-	
Tocopilla-TG1	0.0	0.0	-	

Centrales	Prog.	Real	Desv %	Estado
Juncal	384.0	354.3	-7.73 %	
Kelar Diésel	0.0	0.0	-	
Kelar GNL	0.0	0.0	-	
La Confluencia	1610.0	954.7	-40.70 %	
La Higuera	2040.0	1338.3	-34.40 %	
La Mina	715.4	544.0	-23.96 %	
La Portada-TECNET	0.0	0.0	-	
Laguna Verde TG	0.0	0.0	-	IF
Laguna Verde TV	0.0	0.0	-	
Laja 1	53.7	0.0	-100.00 %	
Laja Energía Verde	72.0	37.0	-48.61 %	
Las Vegas	0.0	0.0	-	PMG
Lautaro 1	510.9	577.4	+13.01 %	
Lautaro 2	0.0	0.0	-	PMM
Lebu	-	0.0	-	PMG
Licantén	60.0	52.8	-12.08 %	
Licán	172.0	160.6	-6.62 %	
Linares Norte	0.0	0.0	-	PMG
Lircay	475.2	455.9	-4.06 %	
Llauquereo	7.6	4.8	-37.18 %	PMG
Loma Alta	801.7	777.0	-3.08 %	
Loma Los Colorados 1	0.0	0.0	-	PMG, IF
Loma Los Colorados 2	336.0	344.9	+2.65 %	
Los Guindos Diésel	0.0	0.0	-	
Los Hierros	96.0	108.4	+12.90 %	
Los Hierros 2	24.0	19.8	-17.50 %	
Los Molles	62.7	49.0	-21.85 %	
Los Pinos	0.0	0.0	-	
Los Quilos	578.0	582.0	+0.69 %	
Los Vientos	0.0	0.0	-	
Machicura	576.0	576.0	-	IL

Centrales	Prog.	Real	Desv %	Estado
Tocopilla-TG2	0.0	0.0	-	
Tocopilla-TG3 Diésel	0.0	0.0	-	
Tocopilla-TG3 GNL	0.0	724.8	GNP	
Tocopilla-U14	0.0	0.0	-	
Tocopilla-U14 Fuel Oil	-	0.0	-	
Tocopilla-U15	0.0	0.0	-	PMM
Tocopilla-U15 Fuel Oil	-	0.0	-	
Tocopilla-U16 Diésel	0.0	0.0	-	
Tocopilla-U16 GNL	0.0	0.0	-	PMM
Tocopilla-U16 Gas Arg	0.0	-	-	
Trapén	0.0	0.0	-	
Trincao	0.0	0.0	-	
Trongol	-	0.0	-	PMG
Ujina-1	0.0	0.0	-	
Ujina-2	0.0	0.0	-	
Ujina-3	0.0	0.0	-	
Ujina-4	0.0	0.0	-	
Ujina-5	0.0	0.0	-	
Ujina-6	0.0	0.0	-	
Ventanas 1	0.0	0.0	-	
Ventanas 2	2160.0	2202.0	+1.94 %	IL
Viñales	528.0	751.6	+42.35 %	
Volcán	261.0	231.0	-11.50 %	
Yungay 1 Diésel	0.0	0.0	-	
Yungay 1 GNL	0.0	0.0	-	
Yungay 2 Diésel	0.0	0.0	-	
Yungay 2 GNL	0.0	0.0	-	
Yungay 3 Diésel	0.0	0.0	-	
Yungay 3 GNL	0.0	0.0	-	
Yungay 4	0.0	0.0	-	
Total	**204230.8**	**207838.6**	**+1.77 %**	

1.2. PMGD

Centrales	Prog.	Real	Desv %
Agni	-	0.0	-
Alicahue	17.3	13.0	-24.98 %
Allipén	57.9	59.3	+2.38 %
Almendrado	-	0.0	-
Ancalí	-	0.0	-
Arrayán	-	0.0	-
Auxiliar del Maipo	81.7	73.6	-9.81 %
Bellavista 1	100.9	0.2	-99.84 %
Biocruz	-	0.0	-
Biomar	-	0.0	-
Boquiamargo	0.0	0.0	-
Bureo	8.5	11.4	+35.13 %
Calfuco	-	0.0	-
Caliboro	23.4	23.5	+0.31 %
Casablanca 1	-	0.0	-
Casablanca 2	-	0.0	-
Cavancha	42.2	47.6	+12.78 %
Cañete	-	0.0	-
Chanleufu	0.5	2.8	+480.78 %
Chile Generación	-	0.0	-
Chorrillos	-	0.0	-
Chufkén (Traiguén)	-	0.0	-
Ciruelillo	-	0.0	-
Collil	32.2	59.4	+84.51 %
Conchali	-	0.0	-
Contra	-	0.0	-
Copiulemu	-	18.7	-
Correntoso	-	24.3	-
Cortés	-	0.0	-
Curacautín	-	0.0	-
Curauma	-	0.0	-
Curileufu	-	0.0	-
Danisco	-	0.0	-
Don Walterio	70.0	64.1	-8.52 %
Dongo	22.4	42.2	+88.51 %
Donguil	0.0	0.0	-
Doña Hilda	7.2	11.3	+57.29 %
Doñihue	83.4	52.4	-37.25 %
Eagon	-	0.0	-
El Agrio	24.9	19.6	-21.20 %
El Arrayán	-	12.7	-
El Campesino 1	-	3.6	-
El Canelo	49.9	51.3	+2.86 %
El Canelo 1	-	0.0	-
El Colorado	11.1	10.3	-6.68 %
El Diuto	69.2	69.5	+0.49 %
El Llano	8.2	7.1	-13.51 %
El Manzano	62.1	64.3	+3.51 %
El Mirador	9.3	10.8	+16.16 %

Centrales	Prog.	Real	Desv %
Solar Altos de Til Til	15.6	14.7	-5.96 %
Solar Altos del Paico	0.0	-	-
Solar Alturas de Ovalle	35.8	34.5	-3.60 %
Solar Amparo del Sol	24.5	20.7	-15.44 %
Solar Ariztía	25.0	26.8	+7.17 %
Solar Bellavista	22.1	19.3	-12.53 %
Solar Cabilsol	20.2	14.2	-29.65 %
Solar Cachiyuyo 2	99.0	96.0	-3.00 %
Solar Calama 1	105.8	97.0	-8.31 %
Solar Calle Larga	32.7	6.8	-79.06 %
Solar Canesa 1	27.9	30.1	+8.07 %
Solar Casuto	26.9	26.3	-1.96 %
Solar Catán	21.5	17.0	-21.06 %
Solar Cernicalo 1	17.4	14.7	-15.10 %
Solar Cernicalo 2	16.7	13.8	-17.14 %
Solar Chalinga	26.3	25.5	-3.21 %
Solar Chancon	16.5	8.5	-48.45 %
Solar Chimbarongo	21.2	9.7	-54.43 %
Solar Chuchiñi	21.8	19.2	-11.69 %
Solar Cordillerilla	11.0	5.2	-52.63 %
Solar Crucero	29.5	28.9	-2.21 %
Solar Cruz	34.6	34.2	-1.16 %
Solar Cuz Cuz	14.8	15.4	+4.06 %
Solar Don Eugenio	29.0	15.1	-47.85 %
Solar El Boco	20.0	14.8	-26.01 %
Solar El Chincol	34.8	24.9	-28.44 %
Solar El Divisadero	33.2	29.6	-10.89 %
Solar El Laurel	68.7	31.2	-54.64 %
Solar El Picurio	28.9	13.8	-52.26 %
Solar El Pilpen	29.5	17.1	-42.04 %
Solar El Pitio	25.7	17.9	-30.54 %
Solar El Queltehue	26.7	-	-
Solar El Quemado	31.4	21.1	-32.95 %
Solar El Queule	0.0	0.0	-
Solar El Roble	29.1	43.4	+49.04 %
Solar El Sauce	29.1	13.9	-52.07 %
Solar Encon	80.4	58.9	-26.77 %
Solar Esperanza	16.6	0.0	-100.00 %
Solar Fotovolt	5.7	5.5	-2.72 %
Solar Francisco	-	0.0	-
Solar GR Santa Rosa	96.2	86.9	-9.64 %
Solar Homero	22.6	-	-
Solar Hormiga	15.9	3.7	-76.94 %
Solar Hornitos	1.2	1.0	-12.79 %
Solar Illapel 5X	27.2	30.1	+10.80 %
Solar Jaururo	12.4	13.1	+6.16 %
Solar José Soler Mallafré	14.9	3.3	-77.87 %
Solar La Acacia	76.8	0.0	-100.00 %
Solar La Blanquina	74.4	18.6	-75.00 %

Centrales	Prog.	Real	Desv %
El Molle	-	23.7	-
El Nogal	-	0.0	-
El Tártaro	0.0	0.0	-
Energía León	-	100.2	-
Ensenada	0.0	0.0	-
Ermitaño	-	0.0	-
Estancilla	-	0.0	-
Estandartes	-	0.0	-
Eyzaguirre	15.4	15.0	-2.73 %
Eólica Huajache	129.1	38.0	-70.61 %
Eólica Las Peñas	189.3	49.1	-74.06 %
Eólica Lebu 3	46.9	6.8	-85.55 %
Eólica Raki	168.6	50.4	-70.09 %
Eólica Ucuquer	33.7	47.3	+40.48 %
Eólico El Nogal	59.7	53.8	-9.97 %
Galpón	9.6	10.5	+9.80 %
Gami	-	0.0	-
HBS	-	0.0	-
HBS-GNL	-	5.0	-
Hidrobonito MC1	78.8	72.2	-8.34 %
Hidrobonito MC2	52.4	47.7	-8.87 %
Hidroeléctrica Cumpeo	45.8	62.6	+36.69 %
Hidroeléctrica Río Mulchén	1.7	1.6	-8.31 %
JCE	-	0.0	-
Juncalito	12.3	12.5	+1.63 %
La Arena	25.0	39.9	+59.59 %
La Bifurcada	4.6	4.6	-0.61 %
La Ligua	22.1	20.7	-6.38 %
La Montaña 1	0.0	0.0	-
La Montaña 2	0.0	0.0	-
La Paloma	55.2	10.5	-80.93 %
La Viña - Alto la Viña	12.1	12.3	+1.81 %
Las Flores	35.5	29.5	-16.80 %
Las Lechuzas	34.8	12.5	-64.17 %
Las Pampas	-	0.0	-
Las Vertientes	39.8	41.2	+3.34 %
Lepanto	-	0.0	-
Lipigas Concón	-	0.0	-
Lonquimay	-	0.0	-
Los Bajos	110.0	104.5	-4.97 %
Los Colonos	-	0.0	-
Los Corrales	0.0	0.0	-
Los Corrales 2	15.6	14.8	-4.87 %
Los Morros	25.6	19.9	-22.09 %
Los Padres	4.0	3.9	-3.50 %
Los Sauces	-	0.0	-
Los Álamos	-	0.0	-
Louisiana Pacific	-	0.0	-
Lousiana Pacific 2	-	0.0	-
MCH-Dosal	-	0.0	-
MSA-1	13.8	10.0	-27.44 %

Centrales	Prog.	Real	Desv %
Solar La Chapeana	21.4	16.6	-22.27 %
Solar La Esperanza 2	0.0	0.0	-
Solar La Frontera	37.1	31.8	-14.25 %
Solar La Lajuela	74.8	19.3	-74.18 %
Solar La Manga	17.9	12.0	-32.96 %
Solar La Quinta	30.3	12.9	-57.55 %
Solar Lagunilla	23.9	22.1	-7.55 %
Solar Las Araucarias	0.0	0.0	-
Solar Las Codornices	35.4	16.6	-53.18 %
Solar Las Mollacas	15.3	16.0	+4.25 %
Solar Las Palomas	24.1	29.0	+20.22 %
Solar Las Perdices	28.8	28.4	-1.54 %
Solar Las Terrazas	16.6	0.0	-100.00 %
Solar Las Turcas	25.3	15.9	-37.17 %
Solar Lipangue	21.5	0.3	-98.44 %
Solar Lo Sierra	19.8	19.7	-0.21 %
Solar Los Gorriones	32.8	19.0	-42.09 %
Solar Los Libertadores	49.0	0.0	-100.00 %
Solar Los Patos	26.7	15.5	-42.13 %
Solar Los Puquios	22.8	0.0	-100.00 %
Solar Luce	24.4	28.5	+16.74 %
Solar Luders	26.5	9.4	-64.59 %
Solar Luna	24.5	26.5	+8.18 %
Solar Luna del Norte	21.2	18.1	-14.60 %
Solar Malaquita 2	101.0	97.1	-3.83 %
Solar Marchigue 2	97.8	57.8	-40.86 %
Solar Marchigue 7	24.6	28.6	+16.36 %
Solar Marin	29.6	5.8	-80.29 %
Solar Montt	30.5	29.4	-3.51 %
Solar Norte Chico 1	20.0	20.0	-0.18 %
Solar Ocoa	24.5	13.5	-44.91 %
Solar Olivillo	90.1	41.7	-53.73 %
Solar Ovejería	75.5	39.9	-47.16 %
Solar PFV Mostazal	72.2	31.6	-56.25 %
Solar PMGD Diego de Almagro	0.0	0.0	-
Solar PSF Lomas Coloradas	14.8	13.4	-9.56 %
Solar Pama	15.3	13.2	-14.00 %
Solar Panquehue 2	42.6	16.4	-61.63 %
Solar Pedreros	30.4	21.9	-28.00 %
Solar Peralillo	24.7	21.5	-12.79 %
Solar Pica	0.0	0.0	-
Solar Piquero	29.5	17.6	-40.48 %
Solar Pirque	27.9	7.3	-73.91 %
Solar Placilla	0.0	0.0	-
Solar Población	30.2	17.8	-41.07 %
Solar Portezuelo	27.8	16.4	-41.01 %
Solar Pozo Almonte 1	68.5	0.0	-100.00 %
Solar Punta Baja	19.4	18.9	-2.45 %
Solar RLA	23.3	26.3	+12.90 %
Solar Ranguil	0.0	0.0	-
Solar Rodeo	25.8	16.2	-37.23 %

Centrales	Prog.	Real	Desv %
Maisan	4.1	4.0	-2.62 %
Mallarauco	72.2	70.2	-2.78 %
María Elena	0.8	0.7	-14.72 %
Melo	44.5	44.5	-0.10 %
Mimbre	-	0.0	-
Minihidro Alto Hospicio	21.4	-	-
Minihidro El Toro 2	21.4	-	-
Minihidro Santa Rosa	11.3	-	-
Molinera Villarrica	4.6	4.7	+0.78 %
Monte Patria	-	0.0	-
Muchi	2.8	1.9	-32.88 %
Multiexport 1	-	0.0	-
Multiexport 2	-	0.0	-
Munilque 1	1.9	2.2	+16.54 %
Munilque 2	10.7	10.9	+1.26 %
Orafti	-	0.0	-
Palmar	-	62.5	-
Panguipulli	-	0.0	-
Pehui	5.9	3.9	-33.75 %
Pichilonco	5.7	6.4	+12.86 %
Picoltué	-	0.0	-
Puclaro	57.4	43.5	-24.32 %
Punitaqui	-	0.0	-
Purísima	4.9	5.0	+0.52 %
Quillaileo	7.6	10.3	+35.65 %
Ramadilla	-	0.0	-
Raso Power	-	0.0	-
Reca	10.7	9.3	-13.69 %
Rey	-	0.0	-
Riñinahue	0.0	21.4	-
Robleria	56.6	48.9	-13.47 %
Río Azul	-	0.0	-
Salmofood 1	-	0.0	-
Santa Elena	0.0	12.3	-
Santa Irene	-	0.0	-
Santa Isabel	13.1	13.3	+1.41 %
Sauce Andes	12.0	11.1	-7.70 %
Sepultura	-	0.0	-
Skretting	-	0.0	-
Skretting Osorno	-	0.0	-
Solar Alto	23.4	16.3	-30.53 %

Centrales	Prog.	Real	Desv %
Solar Rovián	78.2	77.4	-1.11 %
Solar San Francisco	48.0	14.5	-69.84 %
Solar San Isidro	9.3	9.2	-1.03 %
Solar San Pedro	17.6	12.9	-26.48 %
Solar Santa Adriana	23.4	22.0	-5.87 %
Solar Santa Cecilia	13.2	16.9	+27.73 %
Solar Santa Clara	20.9	24.4	+16.75 %
Solar Santa Julia	31.0	24.1	-22.35 %
Solar Santa Laura	21.7	17.9	-17.37 %
Solar Santuario	25.9	5.7	-77.97 %
Solar Sol	21.8	18.8	-14.09 %
Solar Talca	90.6	88.3	-2.50 %
Solar Talhuén	27.6	25.2	-8.71 %
Solar Tambo Real	20.2	18.4	-9.13 %
Solar Techos de Altamira	0.0	0.0	-
Solar Til Til	21.2	2.9	-86.15 %
Solar Tricahue 2	96.0	96.2	+0.22 %
Solar Tucúquere	33.4	32.8	-1.74 %
Solar Valle Este 2	76.0	88.1	+15.94 %
Solar Valle Oeste 2	76.4	87.5	+14.49 %
Solar Valle de la Luna 2	23.9	13.6	-43.22 %
Solar Villa Prat	27.5	13.9	-49.52 %
Solar Villa Seca	29.1	17.2	-40.95 %
Solar Vituco 2B	30.6	17.2	-43.76 %
Solar Ñilhue	6.1	4.9	-19.97 %
Southern	-	0.0	-
Tamm	-	0.0	-
Tapihue	-	0.0	-
Tirúa	-	0.0	-
Tomaval	-	8.3	-
Trailelfú	9.4	8.4	-10.81 %
Tranquil	20.9	15.8	-24.36 %
Trebal Mapocho	-	2.1	-
Trueno	25.5	24.2	-5.21 %
Truful Truful	17.4	18.3	+5.00 %
Watts 1	-	0.0	-
Watts 2	-	0.0	-
Yumbel	-	0.0	-
Zapallar	-	0.0	-
Zofri	-	0.0	-
Total	**6422.9**	**4876.3**	**-24.08 %**

Abreviaturas:

GNP: Generación no programada
IF: Indisponibilidad por Falla
IL: Informe de Limitación de Unidades Generadoras
PMG: Pequeño Medio de Generación
PMGD: Pequeño Medio de Generación Distribuida
PMM: Programa de Mantenimiento Mayor
PMMep: Programa de Mantenimiento Mayor con extensión de plazo
SDCF: Solicitud de desconexión de curso forzoso
SI: Sin información

JUSTIFICACIÓN DE PRINCIPALES DESVIACIONES (*)	
Canutillar	Menor generación real por costo marginal.
Eólica San Juan	Mayor generación real por mayor carga Eólica.
Guacolda 5	GNP por disponibilidad anticipada.
Pehuenche	Menor generación real por costo marginal.
Santa María	GNP por pruebas.
Angamos-ANG1	Mayor generación real por costo marginal.

$$(*)\ si \left\{ \begin{array}{c} \left| E_{real} - E_{programada} \right| > 12.5\% E_{programada} \\ y \\ \left| E_{real} - E_{programada} \right| > 0.5\% E_{total\ real} \end{array} \right\}$$

SISTEMA ELÉCTRICO NACIONAL

CONTROL DE FRECUENCIA SEN			
Central / Unidad	**Hora Inicio**	**Hora Fin**	**Antecedentes**
El Toro / U-3	00:00	23:59	Control primario de frecuencia distribuida CPFD.
Angostura / U-1	00:00	02:49	Control primario de frecuencia distribuida CPFD.
Angostura / U-2	00:00	15:04	Control primario de frecuencia distribuida CPFD.
El Toro / U-1	00:00	23:59	Control primario de frecuencia distribuida CPFD.
El Toro / U-4	00:00	23:59	Control primario de frecuencia distribuida CPFD.
El Toro / U-2	00:00	23:59	Control primario de frecuencia distribuida CPFD.
Canutillar / U-2	00:00	04:09	Control secundario de frecuencia AGC.
Pehuenche / U-2	00:00	07:57	Control secundario de frecuencia AGC.
Ralco / U-2	00:00	16:50	Control secundario de frecuencia AGC.
Ralco / U-1	00:00	03:31	Control secundario de frecuencia AGC.
Pangue / U-1	00:00	23:59	Control secundario de frecuencia AGC.
Angamos / ANG2	00:00	23:59	Control secundario de frecuencia AGC.
Angamos / ANG1	00:00	23:59	Control secundario de frecuencia AGC.
Cochrane / CCH1	00:00	23:59	Control secundario de frecuencia AGC.
Cochrane / CCH2	00:00	23:59	Control secundario de frecuencia AGC.
Pehuenche / U-2	08:39	13:04	Control secundario de frecuencia AGC.
Ralco / U-1	10:43	11:53	Control secundario de frecuencia AGC.
Canutillar / U-2	16:59	19:41	Control secundario de frecuencia AGC.
Colbún / U-2	18:24	23:59	Control secundario de frecuencia AGC.
Colbún / U-1	19:12	21:16	Control secundario de frecuencia AGC.
Ralco / U-2	19:40	23:59	Control secundario de frecuencia AGC.
Angostura / U-1	20:51	23:59	Control primario de frecuencia distribuida CPFD.
Pehuenche / U-2	21:01	23:29	Control secundario de frecuencia AGC.

ESTADO DE LAS CENTRALES

4.1. Indisponibilidad por Falla

CENTRALES (≥100 MW)	Disponibilidad (%)	Observaciones
Santa María	0.0	Alta vibración en la turbina.

4.2. Informe de Limitación de Unidades Generadoras

CENTRALES (≥100 MW)	Disponibilidad (%)	Observaciones
Andina-CTA	96.0	Limitada a 170 MW, según IL N° 1497
Antilhue	100.0	TG1 y TG2 limitada a un mínimo técnico de 25 MW, por altas vibraciones en la turbina con menor generación.
Antuco	66.0	Entrada en vigencia del periodo de riego 2019 - 2020, no podrá aportar en el control Primario de Frecuencia y AGC del SEN, y la tasa de toma de carga se deberá limitar a 20 MW por hora. U-1 limitada, mínimo técnico de 100 MW por vibraciones en tubo intermedio.
Campiche	93.0	Limitada por control parámetros de descarga de agua de mar.
Canutillar	100.0	Sin posibilidad de tener partida autónoma, por mal funcionamiento de las protecciones.
Cipreses	100.0	De acuerdo a convenio de riego de la Laguna Maule de 1947, en temporada de riego y cuando el río Maule en Armerillo se encuentra deficitario (actual escenario) se debe generar el afluente a la Laguna.
El Toro	100.0	Deberá extraer del lago Laja el caudal que solicite el Director Regional de Obras Hidráulicas de la región del Ñuble, debido a la disminución del caudal del río Laja.
Guacolda 1	96.0	Limitada a 147 MW por problema en control de válvula gobernadora.
Guacolda 2	95.0	Unidad limitada en 146 MW por máximo control de válvula de turbina.
Guacolda 3	100.0	Limitada de operar en control AGC por problemas de intermitencias en las comunicación.
Guacolda 4	82.0	Limitada por alta diferencial de filtro de mangas del equipo de abatimiento de gases.
Guacolda 5	67.0	Limitada de operar en control AGC por problemas de intermitencias en las comunicación.
Hornitos-CTH	96.0	Limitada a 170 MW, según IL 1504.
Nehuenco 1 Diésel	0.0	Limitada a no generar con diésel por restricciones ambientales.
Nehuenco 2 Diésel	0.0	Limitada a no generar con diésel por restricciones ambientales.
Nueva Renca GNL	100.0	No participa en el control secundario de frecuencia AGC.
Nueva Ventanas	92.3	Limitada por control de temperatura en descarga de agua de mar del sistema de circulación.
Pangue	100.0	U-2 limitada a operación local e indisponible para participar en control secundario de frecuencia AGC.
Quintero 1A Diésel	0.0	Limitada a no generar con diésel por restricciones ambientales.
Quintero 1B Diésel	0.0	Limitada a no generar con diésel por restricciones ambientales.
Ralco	100.0	Cota superior a 710 msnm el embalse no debe bajar mas de 40 cm/día y entre cotas 710 y 695 msnm no debe bajar más de 25 cm/día.
San Isidro 1 Diésel	0.0	Por cambio de inyectores de combustión, queda limitada a no generar con Diésel hasta realizar el análisis de los resultados.
Taltal 2 GNL	0.0	Limitada a generar con GNL por falla en el sistema DLN, abatimiento de NOx, no mantiene el modo de combustión premix estable.
Tarapacá-CTTAR	49.6	Limitada a 60 MW, según SICF 92002.
Ventanas 2	90.9	Limitada a 200 MW por control de parámetros del sistema de combustión.

4.3. Programa de Mantenimiento Mayor

CENTRALES (≥100 MW)	Disponibilidad (%)	Observaciones
Tocopilla-U15	0.0	Mantenimiento mayor, según SMM 87445.
Tocopilla-U16 GNL	0.0	Mantenimiento Mayor, según SD N° 69789.

4.4. Solicitud de desconexión de curso forzoso

CENTRALES (≥100 MW)	Disponibilidad (%)	Observaciones
Antuco	66.0	U-1 indisponible por alta vibración debido a 20 pernos cortados en zona del tubo intermedio inferior.
Guacolda 5	67.0	Revisión estructural de tubería de vapor principal.

5.1. Observaciones

Hora	Centro de Control	Observación
00:00	CDC	Cs. PE Sarco, PFV Loma Los Colorados, PE Lebu (ampliación de 6,5 a 10 MW), Loma Los Colorados 2 (U-15 y 16), Dos Valles, Aconcagua TG, PE Aurora, Correntoso, Palmar, Teno Gas, PE San Gabriel, PE El Maitén y PE La Flor continúan en período de puesta en servicio.
00:00	Enel Generación	C. Rapel se declara en condición de agotamiento.
00:00	Colbún	C. Colbún se declara en condición de agotamiento.
01:14	CGE	S/E Lebu 52BT2 interrupción forzada por protecciones, según IF 3440.
01:18	CGE	S/E Lebu 52BT2 cerrado, según IF 3440.
01:30	Engie	C. Hornitos unidad CTH limitada en 110 MW. Causa informada: Altas emisiones de NOx. Según IL 2045 y cancela IL 2044.
02:26	Transelec	Línea de 500 kV Ancoa - Alto Jahuel 2 abierta para regular tensión.
03:45	STS	Línea de 220 kV Ciruelos - Nueva Pichirropulli 2 abierta para regular tensión.
03:55	AES Gener	C. Nueva Ventanas cancelada limitación, según IL 2042.
03:56	Transelec	Línea de 220 kV Canutillar - Puerto Montt 2 abierta para regular tensión.
05:04	Engie	C. Hornitos unidad CTH limitada en 75 MW. Causa informada: Altas emisiones de NOx. Según IL 2046 y cancela IL 2045.
05:35	AES Gener	C. Nueva Ventanas limitada a 250 MW. Causa informada: Control de temperatura de descarga de agua de mar, según IL 2047.
05:38	AES Gener	C. Campiche limitada a 260 MW. Causa informada: Control de temperatura de descarga de agua de mar, según IL 2048.
06:04	Enel Generación	C. Tarapacá CTTAR baja a 60 MW con solicitud de intervención de curso forzoso. Causa informada: Limpieza de caja del condensador, según SICF 92002.
07:55	AES Gener	C. Guacolda U-5 disponible y en servicio, cancelada solicitud de desconexión de curso forzoso 89784.
08:17	Chilquinta	S/E San Rafael transformador N° 2 de 110/12 kV, 22.5 MVA con solicitud de desconexión de curso forzoso. Causa informada: Revisión de alarma relé Buchholz por activación, según SDCF 92003.
08:22	Transelec	S/E Alto Jahuel interruptor K2 de línea de 500 kV Ancoa - Alto Jahuel 2 interrupción forzada por protecciones. Causa informada: Al momento de cerrar 52K2 de S/E Alto Jahuel opera protección 87L, según IF 3442.
08:24	Interchile	S/E Nueva Pan de Azúcar conectada compensación serie de línea de 500 kV Nueva Maitencillo - Nueva Pan de Azúcar 1 y 2.
08:40	STS	Línea de 220 kV Ciruelos - Nueva Pichirropulli 2 cerrada.
08:40	TEN	Línea de 500 kV Cumbre - Nueva Cardones 1 cerrada.
08:41	TEN	S/E Cumbre conectada compensación serie de línea de 500 kV Cumbre - Nueva Cardones 1.
08:51	Interchile	Línea de 500 kV Nueva Cardones - Nueva Maitencillo 1 cerrada.
10:12	Transelec	S/E Don Héctor abiertos interruptores J10 y J7 de líneas de 220 kV Don Héctor - Punta Colorada 1 y 2 por control transferencia línea de 220 kV Punta Colorada - Pan de Azúcar 1 y 2.
10:16	Interchile	S/E Nueva Pan de Azúcar conectada compensación serie de línea de 500 kV Nueva Pan de Azúcar - Polpaico 1.
10:54	Transelec	Línea de 500 kV Ancoa - Alto Jahuel 2 cerrada.
12:52	Colbún	Línea de 110 kV Totoralillo – Chagres interrupción forzada por protecciones. Causa informada: Incendio en la zona, según IF 3451.
12:55	Colbún	Líneas de 110 kV Los Maquis – Aconcagua – Esperanza 1 interrupción forzada por protecciones, se pierden 38 MW de consumos correspondientes a las SS/EE San Felipe y San Rafael. Causa informada: Incendio en la zona, según IF 3444.
13:15	Transelec	Línea de 220 kV Canutillar - Puerto Montt 1 cerrada.
13:28	Chilquinta	Línea de 44 kV Las Vegas – FF.CC. Andes 1 y 2, tramo Panquehue - FF.CC. con solicitud de desconexión de curso forzoso, se afectan los consumos de las SS/EE FF.CC. Los Andes, Riecillos, Juncal-Portillo, Río Blanco y Hermanos Clark. Causa informada: A solicitud de bomberos por incendio en la zona, según SDCF 92025-92026.
13:34	Enel Generación	C. Tarapacá CTTAR cancelada solicitud de intervención de curso forzoso.
13:51	Transelec	Línea de 23 kV Diego de Almagro - Inca de Oro interrupción forzada por protecciones, se pierden 1,2 MW de consumos, según IF 3443.
14:33	Codelco Andina	Línea de 220 kV TAP El Llano - Sag con solicitud de desconexión de curso forzoso. Causa informada: Alta probabilidad de descargas atmosféricas, según SDCF 92005.

Hora	Centro de Control	Observación
15:16	Enel Distribución	SDAC habilitado.
16:03	Interchile	S/E Nueva Pan de Azúcar desconectada compensación serie de línea de 500 kV Nueva Pan de Azúcar - Polpaico 1.
16:12	Chilquinta	S/E San Rafael transformador N° 2 de 110/12 kV, 22.5 MVA cancelada solicitud de desconexión de curso forzoso.
16:44	Colbún	Línea de 110 kV Los Maquis – Aconcagua – Esperanza 1 cerrada, puentes abiertos en arranque hacia S/E San Felipe.
16:46	Transelec	Línea de 66 kV Los Molles - Ovalle 1 y 2 con solicitud de intervención de curso forzoso. Causa informada: Normalizar pérdida de comunicación enlace scada en SS/EE Pan de Azúcar, Ovalle y Los Molles, según SICF 92011-92012.
16:57	Chilquinta	S/E San Rafael se recupera el 100% de los consumos.
17:25	AES Gener	C. Guacolda 4 limitada para habilitar AGC, según IL 2051.
17:28	Enel Generación	C. Antuco U-1 sincronizada en pruebas.
17:51	Chilquinta	S/E San Felipe se recuperan 5 MW de consumos a través de línea de 44 kV Las Vegas – Andes.
17:55	Chilquinta	Línea de 44 kV Las Vegas – FF.CC. Andes 1 y 2, tramo Panquehue - FF.CC. cancelada solicitud de desconexión de curso forzoso, se normalizan los consumos de las SS/EE FF.CC. Los Andes, Riecillos, Juncal-Portillo, Río Blanco y Hermanos Clark. Según SDCF 92026.
18:03	CGE	Línea de 66 kV El Manco - Tap Lota interrupción forzada por protecciones con reconexión automática con éxito, según IF 3448.
18:03	Arauco	C. Arauco queda generando en isla dejando de inyectar 8 MW, según IF 3446.
18:03	STS	S/E Cañete transformador N° 1 de 66/23 kV, 16 MVA interrupción forzada por protecciones, se pierden 5.2 MW de consumos, según 3447
18:15	Arauco	C. Arauco sincronizada. Cancela IF 3446.
18:20	Enel Generación	C. Antuco U-1 fuera de servicio en pruebas.
18:32	STS	S/E Cañete transformador N° 1 de 66/23 kV, 16 MVA cerrado, se recupera el 100% de los consumos. Según IF 3447.
19:17	Colbún	Línea de 110 kV Totoralillo - Chagres cerrada. Según IF 3451.
19:30	Chilquinta	Normalizados la totalidad de los consumos de S/E San Felipe.
19:50	Chilquinta	Línea de 66 kV San Antonio - Tap Off Algarrobo 1 interrupción forzada por protecciones con transferencia automática de consumos al circuito 2. Según IF 3450.
20:00	Enel Generación	C. Antuco U-1 cancelada solicitud de desconexión de curso forzoso, según SDCF 90251.
20:00	Enel Generación	C. Antuco U-1 con limitación. Causa informada: Mínimo técnico de la unidad N°1 es 100 MW, por vibración tubo intermedio. Según IL 2056.
20:29	AES Gener	C. Nueva Ventanas cancelada limitación, según IL 2047.
21:16	Colbún	C. Colbún U-1 indisponible para operar en modo control remoto AGC. Según IL 2053.
21:38	AES Gener	C. Nueva Ventanas limitada a 250 MW. Causa informada: Control de temperatura de descarga de agua de mar, según IL 2054.
21:44	Colbún	Línea de 110 kV Los Maquis – Aconcagua – Esperanza 1 normalizada, puentes cerrados en arranque hacia S/E San Felipe. Según IF 3444.
21:55	Enel Distribución	SDAC deshabilitado.
22:08	Interchile	Línea de 220 kV Encuentro - Laguna 2 cerrada.
22:40	AES Gener	C. Guacolda 4 limitada a 135 MW. Causa informada: Alta diferencial de filtro de mangas del equipo de abatimiento, según IL 2055.
22:40	STS	Línea de 220 kV Ciruelos - Nueva Pichirropulli 1 abierta para regular tensión.
22:47	Transelec	Línea de 220 kV Canutillar - Puerto Montt 1 abierta para regular tensión.
22:51	Chilquinta	S/E San Rafael normalizada topología.
23:14	Chilquinta	Línea de 66 kV San Antonio - Tap Off Algarrobo 1 disponible, quedan transferidos los consumos al circuito 2, se realizará inspección pedestre durante la mañana. Según IF 3450.
23:39	Chilquinta	Línea de 44 kV Las Vegas – FF.CC. Andes 1 y 2, tramo Panquehue - FF.CC. cancelada solicitud de desconexión de curso forzoso, según SDCF 92025.
23:49	Celeoredes	Línea de 500 kV Ancoa - Alto Jahuel 3 abierta para regular tensión.
23:55	Chilquinta	S/E San Felipe normalizada topología.

5.2. Otras Observaciones

Hora	Centro de Control	Observación
00:00	Enel Generación	C. Antuco continúa evacuando 20 m3/s, para cumplir con convenio de riego por indisponibilidad de U-1 según SDCF 90251.
00:00	Enel Generación	C. Pehuenche bocatoma Maule continúan extracciones para riego del canal Maule Norte Alto de 5.6 m3/seg, a solicitud de la DOH.
00:00	Enel Generación	Lago Laja continúan extracciones de 55 m3/s equivalentes a 256 MW a requerimiento de la DOH, según IL 1948.
00:00	Enel Generación	Laguna del Maule continúan extracciones en 48 m3/seg a solicitud de la DOH.
18:00	Enel Generación	C. Antuco deja de evacuar 20 m3/s, por pruebas de U-1, según SDCF 90251.
18:45	Enel Generación	C. Antuco comienza a evacuar 20 m3/s, para cumplir con convenio de riego por indisponibilidad de U-1 según SDCF 90251.
20:00	Enel Distribución	C. Antuco continúa evacuando 20 m3/s, para cumplir con convenio de riego por limitación de U-1 según IL 2056.
23:59	Enel Generación	C. Antuco promedio de extracciones diaria de 19,4 m3/s, para cumplir con convenio de riego por limitación de U-1 según IL 2056.
23:59	Enel Generación	C. Pehuenche bocatoma Maule promedio de extracciones diaria de 5,6 m3/seg, a solicitud de la DOH.
23:59	Enel Generación	Lago Laja promedio de extracciones diarias de 55 m3/s a solicitud de la DOH.
23:59	Enel Generación	Laguna del Maule promedio de extracciones diarias de 47,16 m3/seg, a solicitud de la DOH.

5.3. Primera Energización de Instalaciones

Hora	Centrol de Control	Empresa	Instalación
No hay registros para esta fecha.			

SISTEMA ELÉCTRICO NACIONAL

COORDINADOR ELÉCTRICO NACIONAL

INDISPONIBILIDAD SCADA SEN					
Centro de Control	**Instalación**	**Fecha F/S**	**Hora F/S**	**Fecha E/S**	**Hora E/S**
Cenizas	S/E Cenizas sin datos scada.	06/02/2017	18:50		
Elektragen	Cs. Constitución y Maule sin datos scada.	07/11/2017	08:00		
Enor Chile	S/E Mantos Blancos sin datos scada.	18/11/2017	18:31		
Enel Generación	S/E Pilmaiquén interruptores B1 Osorno1 y B2 Osorno 2 datos scada F/S.	06/12/2018	11:59		
Colbún	Líneas 220 kV Charrúa - Quilleco y Charrúa - Rucúe sin visualización de parámetros de transferencia.	10/12/2018	14:00		
Engie	S/E Tamaya interruptor H1 con datos SCADA inválidos (indisponibles al SITR), equipo sin operación remota vía scada.	03/03/2019	04:00		
San Andrés	C. San Andrés data scada.	04/03/2019	16:00		
Enel Generación	C. TG Diego de Almagro sin datos scada.	25/04/2019	08:00		
Enel Generación	C. Cipreses U-1 52 G1 sin visualización de cambios de estados por entrada manual pegada.	01/05/2019	14:00		
Enel Generación	C. Taltal TG2 sin datos scada.	30/05/2019	00:16		
Chilquinta	S/E Las Vegas paño 52HR datos scada con error.	07/06/2019	15:39		
Engie	Línea de 220 kV Encuentro - El Tesoro datos scada sin actualizar.	24/09/2019	01:00		
Enor Chile	S/E Estación de Bombeo Sierra Gorda N°1.	08/10/2019	09:30		
Engie	S/E El Tesoro interruptor J1 sin datos scada.	12/11/2019	00:40		
Colbún	C. Nehuenco 1 TV con datos scada congelados.	27/11/2019	12:10		
CGE	S/E Coronel BB.CC.EE N° 1 de 66 kV, dato scada.	30/11/2019	02:40		
Enel Green Power	C. PE Taltal datos scada.	30/11/2019	19:00		
CGE	SS/EE Latorre, Tumbes, Perales y Talcahuano sin telecontrol ni datos scada.	05/12/2019	17:51		
TEN	S/E Nueva Cardones perdida de comunicación SCADA intermitente.	05/12/2019	19:30		
Collahuasi	S/E Collahuasi patio 2 sin datos scada.	10/12/2019	16:50		
Transelec	Líneas de 66 kV Los Molles - Ovalle 1 y 2 datos scada y telecontrol.	14/12/2019	07:00		

SISTEMA ELÉCTRICO NACIONAL

COORDINADOR ELÉCTRICO NACIONAL

COMUNICACIONES SEN					
Centro de Control	**Instalación**	**Fecha F/S**	**Hora F/S**	**Fecha E/S**	**Hora E/S**
Cenizas	Hot line.	07/10/2018	11:50		
Mariposas	Hot line.	23/02/2019	05:00		
Enel Generación	Hot line.	18/10/2019	14:30		
Enel Distribución	Hot line (Principal - Edificio Santa Rosa).	25/11/2019	17:33		
Interchile	Hot line.	13/12/2019	17:50		

ANEXO N°4

Detalle de mantenimientos programados y forzados correspondientes al día 14 de diciembre de 2019

Número	Empresa	Tipo Solicitud	Tipo Programación	Central	Unidad(es)	Trabajos a Realizar	Comentario Adicional	Fecha Inicio	Fecha Fin	Fecha Efectiva Inicio	Fecha Efectiva Fin
2019088897	ALBA	Desconexión	Programada	PE SAN PEDRO	CENTRAL COMPLETA	Desconexión de unidad generadora N° 11 por Reparación de Palas.	Plataforma Neomante no permite elegir unidades de forma independiente, por eso se indica que afecta a todas las unidades, pero solo se desconectará la unidad generadora n° 11.	14-12-19 08:30	14-12-19 18:00	14-12-19 08:41	14-12-19 10:55
2019088895	ALBA	Desconexión	Programada	PE SAN PEDRO	CENTRAL COMPLETA	Desconexión de unidad generadora N° 07 por Reparación de Palas.	Plataforma Neomante no permite elegir unidades de forma independiente, por eso se indica que afecta a todas las unidades, pero solo se desconectará la unidad generadora n° 07.	14-12-19 08:30	14-12-19 18:00	14-12-19 08:31	14-12-19 11:07
2019088894	ALBA	Desconexión	Programada	PE SAN PEDRO	CENTRAL COMPLETA	Desconexión de unidad generadora N° 05 por Reparación de Palas.	Plataforma Neomante no permite elegir unidades de forma independiente, por eso se indica que afecta a todas las unidades, pero solo se desconectará la unidad generadora n° 05.	14-12-19 08:30	14-12-19 18:00	14-12-19 08:32	14-12-19 11:07
2019089114	CAPULLO	Desconexión	Programada	HP CAPULLO	CENTRAL COMPLETA	Sin Comentarios	Mantenimiento Preventivo Central Capullo, S/E Capullo, LAT Capullo - Pulelfu 66 KV y Paño B2 S/E Pulelfu.	14-12-19 00:00	16-12-19 23:59	14-12-19 00:01	17-12-19 06:20
2019086977	CMPC PAPELES CORDILLERA	Intervención	Programada	TER CMPC CORDILLERA	CENTRAL COMPLETA	Se necesita sincronizar Unidad Generadora para realizar pruebas de validación del CEMS de Cogeneración a solicitud de la Superintendencia del Medio Ambiente (SMA)	Se necesita sincronizar Unidad Generadora a solicitud de la Superintendencia del Medio Ambiente para validación del CEMS de Cogeneración (MP+Nox+CO+O2+Flujo)	14-12-19 08:00	14-12-19 18:00	14-12-19 09:21	14-12-19 15:53
2019092002	GASATACAMA	Intervención	Curso Forzoso	TER TARAPACÁ	TER TARAPACÁ CTTAR	Limpieza cajas condensador, debido a ensuciamiento intempestivo, se requiere unidad limitada en 60 Mw.	No hay.	14-12-19 06:04	14-12-19 11:00	14-12-19 06:04	14-12-19 13:34
2019086727	GUACOLDA	Intervención	Programada	TER GUACOLDA	TER GUACOLDA U4	Pruebas de ajuste de combustión de la caldera. Durante las pruebas Unidad variará su generación entre 60 MW y 50 MW.	Durante las pruebas Unidad variará su generación entre 60 MW y 50 MW.	14-12-19 08:00	14-12-19 20:00	14-12-19 08:37	14-12-19 18:22
2019078677	GUACOLDA	Intervención	Programada	TER GUACOLDA	TER GUACOLDA U1	Prueba de válvulas de turbina en 75 MW .	Sin comentarios.	14-12-19 09:00	14-12-19 12:00	14-12-19 10:45	14-12-19 13:35

Número	Empresa	Tipo Solicitud	Tipo Programación	SubEstación	Elemento(s)	Trabajos a Realizar	Comentario Adicional	Fecha Inicio	Fecha Fin	Fecha Efectiva Inicio	Fecha Efectiva Fin
2019089698	AELA EOLICA SARCO SpA	Intervención	Programada	S/E SARCO	S/E SARCO J1 S/E SARCO ET2 S/E SARCO E1 S/E SARCO E2 S/E SARCO E3 S/E SARCO ET11 S/E SARCO E4 S/E SARCO E5 S/E SARCO E6 S/E SARCO E7 S/E SARCO ET12 S/E SARCO E8 S/E SARCO E9 S/E SARCO E10 S/E SARCO ET1 S/E SARCO EZ1 S/E SARCO 33KV B1 S/E SARCO 33KV B2 S/E SARCO SS/AA	Energización y pruebas de puesta en servicio de S/E Sarco. Condiciones requeridas: a disposición del Jefe de Faena equipos de paño J1 de S/E Sarco; a disposición de jefe de faena equipos de Celdas de Media Tensión ET11, ET12, ET2, E1, E2, E3, E4, E5, E6, E7, E8, E9, E10, EZ1. Considera pruebas y verificación de señales SCADA con Centro de Control. Periodo de pruebas hasta entrada en operación comercial. Reemplaza solicitud 2019066490.	Energización y pruebas de puesta en servicio de S/E Sarco. Condiciones requeridas: a disposición del Jefe de Faena equipos de paño J1 de S/E Sarco; a disposición de jefe de faena equipos de Celdas de Media Tensión ET11, ET12, ET2, E1, E2, E3, E4, E5, E6, E7, E8, E9, E10, EZ1. Considera pruebas y verificación de señales SCADA con Centro de Control. Periodo de pruebas hasta entrada en operación comercial. Reemplaza solicitud 2019066490.	14-12-19 10:00	31-12-19 23:59	14-12-19 11:12	04-01-20 00:00
2019084859	AES GENER SING	Intervención	Programada	S/E ANDES (AES GENER)	S/E ANDES (AES GENER) JBP1 S/E ANDES (AES GENER) EBP1 S/E ANDES (AES GENER) LBP1 S/E ANDES (AES GENER) 25207 S/E ANDES (AES GENER) 25205 S/E ANDES (AES GENER) 25206 S/E ANDES (AES GENER) 25208 S/E ANDES (AES GENER) 25203 S/E ANDES (AES GENER) 25204 S/E ANDES (AES GENER) 25210 S/E ANDES (AES GENER) 389RE03 S/E ANDES (AES GENER) 352A01 S/E ANDES (AES GENER) 352A03 S/E ANDES (AES GENER) 352C1/2 S/E ANDES (AES GENER) 352C3/4 S/E ANDES (AES GENER) 352B02 S/E ANDES (AES GENER) 352B04 S/E ANDES (AES GENER) ET2 S/E ANDES (AES GENER) LAT1 S/E ANDES (AES GENER) 389L03 S/E ANDES (AES GENER) LAT3 S/E ANDES (AES GENER) C103 S/E ANDES (AES GENER) LAT2 S/E ANDES (AES GENER) LBP2 S/E ANDES (AES GENER) JBP2 S/E ANDES (AES GENER) ET1 S/E ANDES (AES GENER) ET3 [En_Revision]	Montaje LMT 23 KV de electromecanico y remates OOCC Proyecto Solar IIA S/E Andes	S/E Andes: 352B02, 352B04, 352C1/2, 352C3/4, 352A01, 352C103, 352A03, 25203, 25204, 25205, 25206, 25207, 25208, 25210, 52ET1, 52ET2 señalizar y no reconectar.	14-12-19 08:00	14-12-19 19:00	14-12-19 08:36	14-12-19 18:10
2019082513	CAPULLO	Desconexión	Programada	S/E CENTRAL CAPULLO	S/E CENTRAL CAPULLO 13,8 KV	Desconexión de S/E Capullo para realizar mantenimiento preventivo básico.	Desconexión de S/E Capullo para realizar mantenimiento preventivo básico.	14-12-19 08:30	16-12-19 18:00	15-12-19 07:04	16-12-19 17:17
2019091113	CGE	Intervención	Programada	S/E LONCOCHE		Intervencion scada SE Loncoche y Centro de Control Scada Temuco por puesta en servicio desconectadores 89B6-1 y 89B6-2. Se intervendra scada SE Loncoche y Centro de Control Scada Temuco por periodos de 5 minutos.	Intervencion scada SE Loncoche y Centro de Control Scada Temuco por puesta en servicio desconectadores 89B6-1 y 89B6-2. Se intervendra scada SE Loncoche y Centro de Control Scada Temuco por periodos de 5 minutos	14-12-19 06:00	14-12-19 20:00	14-12-19 05:41	14-12-19 20:18
2019091099	CGE	Intervención	Programada	S/E LONCOCHE	BA S/E LONCOCHE 66KV	Precaucion operacional sobre barra de 66 kV por reemplazo de desconectador 89B6-1 por unidad motorizada. Se contemplan trabajos con lineas energizadas para retiro equipo existente y conexión nuevo equipo.	Precaucion operacional sobre barra de 66 kV por reemplazo de desconectador 89B6-1 por unidad motorizada. Se contemplan trabajos con lineas energizadas para retiro equipo existente y conexión nuevo equipo	14-12-19 05:30	14-12-19 20:00	14-12-19 05:41	14-12-19 20:18
2019091089	CGE	Desconexión	Programada	S/E LONCOCHE	S/E LONCOCHE B6	Desconexión paño B6 por reemplazo desconectadores 89B6-1 y 89B6-2 por unidades motorizadas. Se contemplan faenas de montaje, control y pruebas Scada	Desconexión paño B6 por reemplazo desconectadores 89B6-1 y 89B6-2 por unidades motorizadas. Se contemplan faenas de montaje, control y pruebas Scada	14-12-19 05:30	14-12-19 20:00	14-12-19 05:41	14-12-19 20:18
2019092003	CHILQUINTA	Desconexión	Curso Forzoso	S/E SAN RAFAEL (CHILQUINTA)	SAN RAFAEL 110/12KV 22.5MVA 2	Desconexión del transformador 110/12 KV N°2 para realizar cambio de rele auxiliar asociado al rele Buchholz, que esta arrojando de manera errónea alarma de operación del rele.	.	14-12-19 08:30	14-12-19 15:00	14-12-19 08:17	14-12-19 16:12
2019090781	ENEL DISTRIBUCIÓN	Intervención	Programada	S/E LAMPA	S/E LAMPA J1	Frebte a una operacion automatica del paño señalado enel solo reconectará previa coordinacion con el CEN	Trabajos enmarcado en proyecto "S/E Nueva Lampa", NUP 782	14-12-19 00:00	15-12-19 21:00	13-12-19 22:56	15-12-19 18:04
2019090776	ENEL DISTRIBUCIÓN	Desconexión	Programada	S/E LAMPA	S/E LAMPA J1	Realiza cambio de arranque en la subestación	Trabajos enmarcado en proyecto "S/E Nueva Lampa", NUP 782	14-12-19 00:00	14-12-19 01:00	13-12-19 22:56	14-12-19 04:51
2019090255	INTERCHILE	Intervención	Programada	S/E NUEVA MAITENCILLO	otros: tendido_cable	SE Nueva Maitencillo 220KV. Ingreso de Cables de baja tensión, con sus respectivas marcas y presentados a pie de bornera en Tablero D01 W011 Control Diagonal 1 Sala 220kV.	Se tomarán todas las medidas de resguardo descritas en los procedimientos establecidos.	14-12-19 08:00	14-12-19 18:00	14-12-19 08:33	14-12-19 18:34
2019090237	INTERCHILE	Intervención	Programada	S/E NUEVA MAITENCILLO	otros: tendido_cable	SE Nueva Maitencillo 220KV. Ingreso de Cables de baja tensión, con sus respectivas marcas y presentados a pie de bornera en Tablero 2L2 1 +R21 Protección Maitencillo 1 Sala 220kV.	Se tomarán todas las medidas de resguardo descritas en los procedimientos establecidos.	14-12-19 08:00	14-12-19 18:00	14-12-19 12:30	14-12-19 18:34
2019089067	MINERA ESCONDIDA	Intervención	Programada	S/E 401	S/E 401 13.8 KV S/E 401 4.16 KV S/E 401 69 KV S/E 401 DT1 S/E 401 CT1 S/E 401 B191 S/E 401 B227	Lavado aisladores S/E 401 (CV101).	S/E Laguna Seca: No reconectar 52BL3. S/E 401: No reconectar 52B227 y 52B191	14-12-19 07:30	14-12-19 18:00	14-12-19 08:50	14-12-19 16:09
2019089066	MINERA ESCONDIDA	Intervención	Programada	S/E OGP1	S/E OGP1 BL2	Medicion de malla a tierra Línea 69 kV OGP1 - New Overland	Condiciones Requeridas: S/E OGP1No Reconectar 52BL2 S/E 538No Reconectar 52BT1 S/E Este 6No Reconectar 52B1 S/E 537No Reconectar 52BT1 S/E 536No Reconectar 52BT1 S/E 534No Reconectar 52BT1	14-12-19 07:30	14-12-19 18:00	14-12-19 14:39	14-12-19 16:09

2019088283	PARQUE EÓLICO EL ARRAYÁN	Intervención	Programada	S/E DON GOYO	S/E DON GOYO J3	Evaluación de corrosión con trepado en estructuras tramo 02 estructuras 273 a 336 ejecutado por Transelec. Condiciones requeridas en S/E Don Goyo: No reconectar 52J3.	Evaluación de corrosión con trepado en estructuras tramo 02 estructuras 273 a 336 ejecutado por Transelec. Condiciones requeridas en S/E Don Goyo: No reconectar 52J3.	14-12-19 08:00	14-12-19 18:00	14-12-19 08:06	14-12-19 17:54
2019087222	PARQUE EÓLICO LOS CURUROS	Intervención	Programada	S/E CENTRAL LA CEBADA	S/E CENTRAL LA CEBADA J4	a solicitud de Transelec no reconectar 52J4 en Linea 220 Kv. La cebada - Talinay - Don Goyo Motivo: realizar Evaluación de corrosión con trepado en estructuras tramo 02: E273 a E336.	a solicitud de Transelec no reconectar 52J4 en Linea 220 Kv. La cebada - Talinay - Don Goyo Motivo: realizar Evaluación de corrosión con trepado en estructuras tramo 02: E273 a E336.	14-12-19 08:00	14-12-19 18:00	14-12-19 08:01	14-12-19 17:10
2019087106	PARQUE EÓLICO LOS CURUROS	Intervención	Programada	S/E CENTRAL LA CEBADA	S/E CENTRAL LA CEBADA J2	a solicitud de Transelec no reconectar 52J2 en Linea 220 Kv. La cebada - Pan de azúcar Motivo: realizar Evaluación de corrosión con trepado en estructuras tramo 02: E273 a E336.	a solicitud de Transelec no reconectar 52J2 en Linea 220 Kv. La cebada - Pan de azúcar Motivo: realizar Evaluación de corrosión con trepado en estructuras tramo 02: E273 a E336.	14-12-19 08:00	14-12-19 18:00	14-12-19 08:01	14-12-19 17:10
2019088924	SATT	Intervención	Programada	S/E MARÍA ELENA	S/E MARÍA ELENA J4 S/E MARÍA ELENA J5	Se requiere no reconectar interruptores 52J4 y 52J5 a solicitud de Transelec por trabajos de Lavado aislación tramo E 001 a E 008 de línea 220 kV María Elena-Crucero, C1.	Trabajos de Transelec.	14-12-19 08:00	14-12-19 18:00	14-12-19 07:53	14-12-19 17:03
2019090472	TRANSELEC	Desconexión	Programada	S/E DON HECTOR	BA S/E DON HECTOR 220KV-2	S/E Don Héctor: Tendido de conductores Flint y OPGW de L. Don Héctor - El Romero, desde estructura N° 12 hasta marco de Linea paño J3. Realizar bajadas hasta equipos PRJ3 y desconectador de linea 89J3-3 fuera de servicio. Fusion de F.O en caja de emplame	Actividades: Tendido de conductores sobre barra desenergizada,, Acción 'S/E Don Héctor: Tendido de conductores Flint y OPGW de L. Don Héctor - El Romero, desde estructura N° 12 hasta marco de Linea paño J3. Realizar bajadas hasta equipos PRJ3 y desconectador de linea 89J3-3 fuera de servicio. Fusion de F.O en caja de emplame de ML. Restricciones: No hay Instalaciones en Riesgo: Barra 220 kV, Sección 2-Don Héctor Temporalidad de los Riesgos: Durante de los trabajos Nivel de Riesgo: Bajo Bloqueos del Jefe de Faena: Subestación Don Héctor, Se instalaran tierras provisionales (3) en Diagonal 1, marco de línea paño J3 El Romero y pertiga personal (1) en el cable OPGW llegada a mismo marco de línea A disposición del Jefe de Faena Retiro de bloqueos una vez terminada la faena	14-12-19 08:00	14-12-19 16:00	14-12-19 08:27	14-12-19 19:22
2019085269	TRANSEMEL	Intervención	Programada	S/E PARINACOTA	otros: tendido_cable	Trabajos se realizaran en patios 13,8 kV-66kV-220 kV y Autotransformadores: Delimitación y señalización de zona de trabajo. Remate de obras civiles, confección de extensión de MPT y chicotes, confección de banco de ductos, instalación de cámaras eléctricas y canalizaciones, montaje de estructuras de equipos primarios , montaje de equipos, tendido de cables BT, conexión de banco de ductos a trincheras existentes, pruebas eléctricas a equipos primarios. Trabajos se realizaran en Sala de Mando: Retiro de tapas canaletas, tendido de cables de control y fuerza, preparación, medición con megger y marcado de cables de fuerza, tendido y peinado de cables al interior de armarios nuevos, pruebas punto a punto y conexionado en armarios nuevos y existentes.Trabajos en paño SKY Solar: canalizaciones y fundaciones de plancha operador, montaje de desconectador CPT, tendido de cables de equipos a sala de control y paño, conexión de cables a circuitos de control y protecciones en paño sky solar y sala de mando, pruebas de equipos AT y pruebas de control.	Condiciones Operacionales: Deshabilitar reconexión automática de 52J2 en S/E Cóndores. Deshabilitar reconexión automática de 52B1, 52B2, 52B3 en S/E Parinacota. Señalización de 52CE1, 52CE2 y 52CT1 en S/E Parinacota.	14-12-19 08:00	14-12-19 19:00	14-12-19 08:00	14-12-19 18:30

Número	Empresa	Tipo Solicitud	Tipo Programación	Línea	Tramo(s)	Trabajos a Realizar	Comentario Adicional	Fecha Inicio	Fecha Fin	Fecha Efectiva Inicio	Fecha Efectiva Fin
2019090212	AES GENER SING	Intervención	Programada	NORGENER - CRUCERO 220KV	NORGENER - TAP OFF BARRILES 220KV C1 TAP OFF BARRILES - TAP OFF LA CRUZ 220KV C1 TAP OFF LA CRUZ - CRUCERO 220KV C1 NORGENER - TAP OFF BARRILES 220KV C2 TAP OFF BARRILES - TAP OFF LA CRUZ 220KV C2 TAP OFF LA CRUZ - CRUCERO 220KV C2	Canalización fibra óptica torres 13 y 20	S/E Crucero: 52J12 No reconectar, S/E Crucero: 52J13 No reconectar, S/E Norgener : 52J1 No reconectar, S/E Norgener: 52JU2 No reconectar, S/E Norgener: 52J5 No reconectar, S/E Norgener: 52J2 No reconectar, S/E Tap Off Barriles: 52J2 No reconectar, S/E Tap Off Barriles: 52J1 No reconectar, S/E Tap Off La Cruz: 52JT2 No reconectar, S/E Tap Off La Cruz: 52JT1 No reconectar, S/E Norgener: 52JT1 No reconectar, S/E Norgener: 52JU1 No reconectar.	14-12-19 08:00	14-12-19 17:00	14-12-19 08:22	14-12-19 16:05
2019082515	CAPULLO	Desconexión	Programada	CAPULLO - PULELFU 66KV	CAPULLO - PULELFU 66KV C1	Desconexión de linea 66 kV Capullo - S/E Pulelfu para realizar mantenimiento preventivo básico de la linea y paño 52B2 de S/E Pulelfu.	Desconexión de linea 66 kV Capullo - S/E Pulelfu para realizar mantenimiento preventivo básico de la linea y paño 52B2 de S/E Pulelfu.	14-12-19 08:30	16-12-19 18:00	15-12-19 07:04	16-12-19 17:17
2019091313	CGE	Intervención	Programada	LONCOCHE - TEMUCO 66KV L2	GORBEA - PITRUFQUEN 66KV L2 C1 [En_Revision] LICANCO - PADRE LAS CASAS 66KV L2 C2 LONCOCHE - PITRUFQUEN 66KV L2 C1 PITRUFQUEN - LICANCO 66KV L2 C2 LONCOCHE - GORBEA 66KV L2 C1 [En_Revision] PADRE LAS CASAS - ESTRUCTURA 370 66KV L2 C2 ESTRUCTURA 370 - TEMUCO 66KV L2 C2	Bloqueo reconexion línea 66 kV Loncoche-Temuco 2 como medida de precaución operacional por faenas cercanas en línea 66 kV Loncoche-Temuco 1.	Bloqueo reconexion línea 66 kV Loncoche-Temuco 2 como medida de precaución operacional por faenas cercanas en línea 66 kV Loncoche-Temuco 1.	14-12-19 05:30	14-12-19 20:00	14-12-19 13:58	14-12-19 20:00
2019091127	CGE	Desconexión	Programada	LONCOCHE - TEMUCO 66KV L1	LICANCO - PADRE LAS CASAS 66KV L1 C1 ESTRUCTURA 370 - TEMUCO 66KV L1 C1 PADRE LAS CASAS - ESTRUCTURA 370 66KV L1 C1 PITRUFQUEN - TAP METRENCO FFCC 66KV L1 C1 TAP METRENCO FFCC - LICANCO 66KV L1 C1	Desconexion tramo 66 kV Temuco-Pitrufquen 1 por faenas de mantenimiento preventivo y poda. SE Licanco será respaldada desde linea 66 kV Loncoche-Temuco 2.	Desconexion tramo 66 kV Temuco-Pitrufquen 1 por faenas de mantenimiento preventivo y poda. SE Licanco será respaldada desde linea 66 kV Loncoche-Temuco 2.	14-12-19 05:30	14-12-19 12:00	14-12-19 05:41	14-12-19 13:56
2019091122	CGE	Intervención	Programada	HORCONES - CURANILAHUE 66KV	CARAMPANGUE - CURANILAHUE 66KV C1	Por proyecto de construcción de nueva línea Horcones-Tres Pinos N°2, se realizará cierre de puentes de estructura 347 de línea 66 kV Carampangue-Curanilahue con técnica de LLEE, lo cual energizará DDCC 89B3-2 y 89B2-2 de S/E Curanilahue Norte, correspondientes a los paños de llegada y salida respectivamente. Los DDCC mencionados se mantendrán abiertos y bloqueados.	Se requiere bloqueo de reconexión de 52B1 de S/E Carampangue.	14-12-19 09:00	14-12-19 18:00	14-12-19 10:05	14-12-19 19:00
2019091118	CGE	Desconexión	Programada	LONCOCHE - TEMUCO 66KV L1	LONCOCHE - GORBEA 66KV L1 C1 [En_Revision] GORBEA - PITRUFQUEN 66KV L1 C1 [En_Revision]	Desconexión tramo 66 kV Pitrufquen-Loncoche 1 por poda de árboles cercanos a linea.	Desconexión tramo 66 kV Pitrufquen-Loncoche 1 por poda de árboles cercanos a linea	14-12-19 05:30	14-12-19 20:00	14-12-19 05:41	14-12-19 20:18
2019091115	CGE	Desconexión	Programada	LONCOCHE - TEMUCO 66KV L1	LONCOCHE - GORBEA 66KV L1 C1 [En_Revision] GORBEA - PITRUFQUEN 66KV L1 C1 [En_Revision]	Desconexión de tramo 66 kV Loncoche-Pitrufquen 1 por faenas de reemplazo desconectador 89B6-2 en SE Loncoche.	Desconexión de tramo 66 kV Loncoche-Pitrufquen 1 por faenas de reemplazo desconectador 89B6-2 en SE Loncoche.	14-12-19 05:30	14-12-19 20:00	14-12-19 05:41	14-12-19 20:18
2019090702	CGE	Intervención	Programada	MALLOA NUEVA - SAN VICENTE DE TAGUA TAGUE 66KV	MALLOA NUEVA - SAN VIC DE TAGUA TAGUA 66KV C1	Actividades de poda-roce de arboles dentro y fuera de franja	Se requiere el bloqueo de la reconexión automática de interruptor 52B2 de S/E Malloa y no reconectar 52BS de S/E San Vicente TT como medida de precaución ante estas actividades	14-12-19 08:00	14-12-19 18:00	14-12-19 08:50	14-12-19 15:55
2019092026	CHILQUINTA	Desconexión	Curso Forzoso	LAS VEGAS - FFCC LOS ANDES 44KV	PANQUEHUE - TAP SAN FELIPE 44KV C2 TAP SAN FELIPE - TAP SAN RAFAEL 44KV C2 TAP SAN RAFAEL - FFCC LOS ANDES 44KV C2 TAP SAN RAFAEL - SAN RAFAEL 44KV C2	a solicitud de bomberos se desconecta la LT 44kV Las Vegas - FFCC Andes circuito 1 y 2.	.	14-12-19 13:28	14-12-19 17:55	14-12-19 13:28	14-12-19 17:55
2019092025	CHILQUINTA	Desconexión	Curso Forzoso	LAS VEGAS - FFCC LOS ANDES 44KV	PANQUEHUE - TAP SAN FELIPE 44KV C1 TAP SAN FELIPE - TAP SAN RAFAEL 44KV C1 TAP SAN RAFAEL - FFCC LOS ANDES 44KV C1 TAP SAN RAFAEL - SAN RAFAEL 44KV C1	a solicitud de bomberos se desconecta la LT 44kV Las Vegas - FFCC Andes circuito 1 y 2.	Se abren puentes en estructura 199 de la LT 44kV Las Vegas - FFCC Andes circuito 1 por lo que al momento de la energización se deja disponible entre E199 y S/E FFCC Andes	14-12-19 13:28	14-12-19 23:39	14-12-19 13:28	14-12-19 23:39
2019092005	CODELCO CHILE - DIVISIÓN ANDINA	Desconexión	Curso Forzoso	TAP EL LLANO - SAG 220KV	TAP EL LLANO - TERMINAL DE MUFA PONIENTE 220KV C1 TERMINAL MUFA PONIENTE - TERMINAL MUFA ORIENTE 220KV C1 TERMINAL MUFA ORIENTE - MARCO DE LINEAS 220KV C1 MARCO DE LINEAS - SAG 220KV C1	Apertura de interruptor 52J2 en S/E Sag (línea 220 kV tramo El Llano - Sag, quedará energizada en vacío).	Apertura del interruptor 52J2 en S/E Sag, no provoca ninguna interferencia, ya que esta en anillo con línea 220 kV Los Maquis - Cordillera.	14-12-19 14:00	15-12-19 00:00	14-12-19 14:33	15-12-19 09:28

2019090766	ENEL DISTRIBUCIÓN	Intervención	Programada	CERRO NAVIA - CHENA 110KV	CERRO NAVIA - TAP PUDAHUEL 110KV C2 TAP LO VALLEDOR - LO VALLEDOR 110KV C2 TAP LO VALLEDOR - TAP MAIPU 110KV C2 TAP MAIPU - MAIPU 110KV C2 TAP MAIPU - TAP SANTA MARTA 110KV C2 TAP PAJARITOS - PAJARITOS 110KV C2 TAP PAJARITOS - TAP LO VALLEDOR 110KV C2 TAP PUDAHUEL - PUDAHUEL 110KV C2 TAP PUDAHUEL - TAP SAN JOSE 110KV C2 TAP SAN JOSE - SAN JOSE 110KV C2 TAP SAN JOSE - TAP PAJARITOS 110KV C2 TAP SANTA MARTA - CHENA 110KV C2 TAP SANTA MARTA - TAP BICENTENARIO 110KV C2 TAP BICENTENARIO - SANTA MARTA 110KV C2 TAP BICENTENARIO - BICENTENARIO 110KV C2	Trabajos en el Circuito N°2 de la linea	Trabajos enmarcados en el Traslado de los Circuitos 1 y 2 de la linea a la Nueva Torre N°60, correspondientes al proyecto NUP 894 Frente a una operación automática Enel solo reconectará previa coordinación con el CEN. Trabajos informados con carta SGOyM 2019/371	14-12-19 03:00	15-12-19 22:00	14-12-19 03:24	15-12-19 22:52
2019090747	ENEL DISTRIBUCIÓN	Desconexión	Programada	CERRO NAVIA - CHENA 110KV	CERRO NAVIA - TAP PUDAHUEL 110KV C2	Tramo señalado queda desconectado para ejecutar trabajos de Traslada circuito 110 kV N°1 y 2 a Torre N°60 nueva.	Trabajos enmarcados en el Traslado de los Circuitos 1 y 2 de la linea a la Nueva Torre N°60, correspondientes al poryecto NUP 894	14-12-19 03:00	17-12-19 22:00	13-12-19 23:01	18-12-19 04:06
2019090736	ENEL DISTRIBUCIÓN	Desconexión	Programada	CERRO NAVIA - CHENA 110KV	CERRO NAVIA - TAP PUDAHUEL 110KV C1 TAP PUDAHUEL - PUDAHUEL 110KV C1	Entre puentes abiertos en Torro 60, Desconectador 110 kV Lado linea en Subestación Cerro Navia y Pudahuel	Trabajos enmarcados en el Traslado de los Circuitos 1 y 2 de la linea a la Nueva Torre N°60, correspondientes al poryecto NUP 894	14-12-19 07:00	15-12-19 22:00	14-12-19 07:35	15-12-19 22:52
2019090735	ENEL DISTRIBUCIÓN	Desconexión	Programada	CERRO NAVIA - CHENA 110KV	CERRO NAVIA - TAP PUDAHUEL 110KV C1 TAP LO VALLEDOR - LO VALLEDOR 110KV C1 TAP LO VALLEDOR - TAP MAIPU 110KV C1 TAP MAIPU - MAIPU 110KV C1 TAP MAIPU - TAP SANTA MARTA 110KV C1 TAP PAJARITOS - PAJARITOS 110KV C1 TAP PAJARITOS - TAP LO VALLEDOR 110KV C1 TAP PUDAHUEL - PUDAHUEL 110KV C1 TAP PUDAHUEL - TAP SAN JOSE 110KV C1 TAP SAN JOSE - SAN JOSE 110KV C1 TAP SAN JOSE - TAP PAJARITOS 110KV C1 TAP SANTA MARTA - CHENA 110KV C1 TAP SANTA MARTA - TAP BICENTENARIO 110KV C1 TAP BICENTENARIO - SANTA MARTA 110KV C1 TAP BICENTENARIO - BICENTENARIO 110KV C1	Abre puentes en Torre 59N3	Trabajos enmarcados en el Traslado de los Circuitos 1 y 2 de la linea a la Nueva Torre N°60, correspondientes al poryecto NUP 894	14-12-19 03:00	14-12-19 07:00	14-12-19 03:24	14-12-19 07:34
2019088191	INTERCHILE	Intervención	Programada	NUEVA PAN DE AZUCAR - POLPAICO 500KV	NUEVA PAN DE AZUCAR - POLPAICO 500KV C1 NUEVA PAN DE AZUCAR - POLPAICO 500KV C2	Subestación Polpaico 500. trabajos Montaje de Plataforma FSC en Eje A al C: montaje de equipos y accesorios de compensación FSC	Bloqueo de reconexión automática circuito 1 y 2 de linea Nueva Pan de Azúcar - Polpaico. Paños K3 y K4, trabajos Montaje de Plataforma FSC en Eje A al C: montaje de equipos y accesorios de compensación FSC.	14-12-19 07:00	14-12-19 20:00	14-12-19 07:14	14-12-19 13:51
2019090110	MINERA QUEBRADA BLANCA	Intervención	Programada	COLLAHUASI - QUEBRADA BLANCA 220KV	COLLAHUASI - QUEBRADA BLANCA 220KV C1	Inspección de estructuras con trepado, medición de puesta a tierra y lavado de estructura N°10	S/E Quebrada Blanca : Señalizar y No Reconectar 52JQB S/E Collahuasi: Señalizar y No Reconectar 52J1	14-12-19 08:00	14-12-19 17:00	14-12-19 08:49	14-12-19 17:28
2019088392	STS	Intervención	Programada	CHONCHI - QUELLON 110KV	SECCION 1 DE 2 110KV C1 SECCION 2 DE 2 110KV C1	Se requiere no reconectar línea 110 kV Chonchi-Quellón por trabajos de Tala de árboles Con riesgo de contacto o proyección de caída a línea 110 kV, y roce en respectiva faja de servidumbre, entre las estructuras 14791 a 14996.	Sin comentarios.	14-12-19 08:00	14-12-19 18:00	14-12-19 09:33	14-12-19 18:05
2019090367	TEN	Intervención	Programada	LOS CHANGOS – CUMBRE 500KV	LOS CHANGOS – CUMBRE 500KV C1 LOS CHANGOS – CUMBRE 500KV C2	Se realizará lavado de aislación circuitos 1 y 2 en tramo de Linea estr 198 - 827 de 500KV Los Changos - Cumbre	Se realizará lavado de aislación en Linea 500KV circuitos 1 y 2 Los Changos - Cumbre	14-12-19 07:00	14-12-19 18:00	14-12-19 06:53	15-12-19 12:29
2019090022	TRANSELEC	Intervención	Programada	DON GOYO - LA CEBADA 220KV	TAP TALINAY - LA CEBADA 220KV C2	Evaluación de corrosión con trepado en estructuras Tramo 02: E273 a E336.	Actividades: Inspección y medición de corrosión en estructuras, Evaluación de corrosión con trepado en estructuras Tramo 02: E273 a E336 Restricciones: Subestación P. Azúcar, 52 J4 con bloqueo a la reconexión inmovilizado Terceros, S/E La Cebada: 52 J2 con bloqueo a la reconexión inmovilizado Terceros, S/E Don Goyo 52 J3 con bloqueo a la reconexión inmovilizado Terceros, S/E Talinay: 52 JL con bloqueo a la reconexión inmovilizado Terceros, S/E La Cebada: 52 J4 con bloqueo a la reconexión inmovilizado Instalaciones en Riesgo: L 220kV La Cebada-Pan De Azúcar, C1 o L 220kV La Cebada - Don Goyo C2 Temporalidad de los Riesgos: Durante de los trabajos Nivel de Riesgo: Bajo Bloqueos del Jefe de Faena: Terceros, S/E La Cebada - Evaluación de corrosión en estructuras Tramo 02: E273 a E336 A disposición del jefe de faena El jefe de faena antes de iniciar los trabajos debe verificar las buenas condiciones del personal, climáticas, verificar certificación, buen estado de los equipos, herramientas y materiales a utilizar. Subestación P. Azúcar, Evaluación de corrosión en estructuras Tramo 02: E273 a E336 A disposición del jefe de faena El jefe de faena antes de iniciar los trabajos debe verificar las buenas condiciones del personal, climáticas, verificar certificación, buen estado de los equipos, herramientas y materiales a utilizar.	14-12-19 08:00	14-12-19 18:00	14-12-19 08:14	14-12-19 17:58

2019089958	TRANSELEC	Desconexión	Programada	ATACAMA - ESMERALDA 220KV	ATACAMA - ESMERALDA 220KV C1	Obra reemplazo de conductor de línea 220 kV Atacama - Esmeralda. Trabajos coordinados con CGE, que respaldará la totalidad de consumos asociados.	Actividades: Apertura y cierre de puentes,Habilitación Fase 1, Deshabilitacion Fase 3,Reemplazo de Conductor Vano 5-6, Retiro de Conductor Tramo 112-134, Apertura y Cierre de Puentes E134, Reemplazo Conductor Vano ML-E1,Retiro Conectores equipos TC, TP , Pararrayos, Retiro conductor Vano E1-E2. Restricciones: L 220kV Atacama-Esmeralda, C1, Indisponible. Instalaciones en Riesgo: L 220kV Atacama-Esmeralda, C1. Temporalidad de los Riesgos: Al término, Durante de los trabajos. Nivel de Riesgo: Bajo. Bloqueos del Jefe de Faena: Subestación Atacama, E5 Puesta a Tierra Provisional Realizar Prueba de ausencia de tensión antes de Instalar Puestas a Tierra. Subestación Atacama, E6 Puesta a Tierra Provisional Realizar Prueba de ausencia de tensión antes de Instalar Puestas a Tierra. Subestación Atacama, E112; E134 Puesta a tierra Provisoria Realizar Prueba de ausencia de tensión antes de Instalar Puestas a Tierra. Subestación Atacama, E133, E134 Salida Puesta a tierra Provisoria Realizar Prueba de ausencia de tensión antes de Instalar Puestas a Tierra. Subestación Atacama, E5 Entrada, E6 Salida Puesta a Tierra Provisional. Subestación Atacama, ML Atacama-Esmeralda; E1 Puesta a tierra Provisoria Realizar Prueba de ausencia de tensión antes de Instalar Puestas a Tierra. Terceros, Estructura ex LT Atacama-O´higgins (actualmente fuera de servicio). Línea en común con L220kV Atacama-Esmeralda Puesta a tierra Provisoria Realizar Prueba de ausencia de tensión antes de Instalar Puestas a Tierra.	14-12-19 01:30	14-12-19 06:30	14-12-19 02:06	14-12-19 06:38
2019089712	TRANSELEC	Desconexión	Programada	CERRO NAVIA - POLPAICO 220KV	CERRO NAVIA - TAP LAMPA 220KV C1 TAP LAMPA - POLPAICO 220KV C1	Desconexión solicitada por Enel Distribución, por obra asociada a nueva S/E Lampa. Al final de esta faena, S/E Lampa alimentada solo desde el circuito 1 de forma radial desde S/E Polpaico.	Actividades: Traslado a variante desde estructura 39 hasta estructura 40A del circuito 1, por obra de Enel y nueva S/E Lampa. Restricciones: Trabajos en circuito adyacente. No reconectar interruptores asociados a la línea de 220 kV Cerro Navia - Polpaico circuito 2. No reconectar interruptores asociados a la línea de 220 kV Cerro Navia - Polpaico circuito 1 en SS/EE Lampa y Polpaico. Circuito 1 desenergizado entre S/E Cerro Navia y estructura 40A (S/E Lampa) por puentes abiertos. Instalaciones en Riesgo: Línea 220 kV Cerro Navia - Polpaico circuito 2. Temporalidad de los Riesgos: Al inicio o durante los trabajos. Nivel de Riesgo: Bajo. Bloqueos del Jefe de Faena: El Jefe de Faena instalará tierras provisionales de bloqueo en estructuras adyacentes a la zona de trabajo, previa verificación de ausencia de tensión.	14-12-19 07:00	14-12-19 19:00	14-12-19 09:18	15-12-19 04:03
2019089711	TRANSELEC	Intervención	Programada	CERRO NAVIA - POLPAICO 220KV	CERRO NAVIA - TAP LAMPA 220KV C1 TAP LAMPA - POLPAICO 220KV C1	Desconexión solicitada por Enel Distribución, por obra asociada a nueva S/E Lampa. Al final de esta faena, S/E Lampa alimentada solo desde el circuito 1 de forma radial desde S/E Polpaico.	Actividades: Apertura de puentes eléctricos en arranque hacia S/E Lampa desde el circuito 2 de la lInea, por obra de nueva S/E Lampa. Restricciones: Trabajos en circuito adyacente. No reconectar interruptores asociados a la línea de 220 kV Cerro Navia - Polpaico circuito 1 en SS/EE Lampa y Polpaico. Circuito 1 desenergizado entre S/E Cerro Navia y estructura 40A (S/E Lampa) por puentes abiertos. Instalaciones en Riesgo: Línea 220 kV Cerro Navia - Polpaico circuito 1. Temporalidad de los Riesgos: Durante o al término de los trabajos. Nivel de Riesgo: Bajo. Bloqueos del Jefe de Faena: El Jefe de Faena instalará tierras provisionales de bloqueo en estructuras adyacentes a la zona de trabajo, previa verificación de ausencia de tensión.	14-12-19 04:00	14-12-19 07:00	14-12-19 05:00	14-12-19 09:05
2019089710	TRANSELEC	Desconexión	Programada	CERRO NAVIA - POLPAICO 220KV	CERRO NAVIA - TAP LAMPA 220KV C2 TAP LAMPA - POLPAICO 220KV C2	Desconexión solicitada por Enel Distribución, por obra asociada a nueva S/E Lampa. Al final de esta faena, S/E Lampa alimentada solo desde el circuito 1 de forma radial desde S/E Polpaico.	Actividades: Apertura de puentes eléctricos en arranque hacia S/E Lampa desde el circuito 2 de la lInea, por obra de nueva S/E Lampa. Restricciones: Trabajos en circuito adyacente. No reconectar interruptores asociados a la línea de 220 kV Cerro Navia - Polpaico circuito 1 en SS/EE Lampa y Polpaico. Circuito 1 desenergizado entre S/E Cerro Navia y estructura 40A (S/E Lampa) por puentes abiertos. Instalaciones en Riesgo: Línea 220 kV Cerro Navia - Polpaico circuito 1. Temporalidad de los Riesgos: Durante o al término de los trabajos. Nivel de Riesgo: Bajo. Bloqueos del Jefe de Faena: El Jefe de Faena instalará tierras provisionales de bloqueo en estructuras adyacentes a la zona de trabajo, previa verificación de ausencia de tensión.	14-12-19 04:00	14-12-19 07:00	14-12-19 05:00	14-12-19 09:05
2019089703	TRANSELEC	Intervención	Programada	CERRO NAVIA - POLPAICO 220KV	CERRO NAVIA - TAP LAMPA 220KV C2 TAP LAMPA - POLPAICO 220KV C2	Desconexión solicitada por Enel Distribución, por obra asociada a nueva S/E Lampa. Al final de esta faena, S/E Lampa alimentada solo desde el circuito 1 de forma radial desde S/E Polpaico.	Actividades: Traslado a variante desde estructura 39 hasta estructura 40A del circuito 1, por obra de Enel y nueva S/E Lampa. Restricciones: Trabajos en circuito adyacente. No reconectar interruptores asociados a la línea de 220 kV Cerro Navia - Polpaico circuito 2. No reconectar interruptores asociados a la línea de 220 kV Cerro Navia - Polpaico circuito 1 en SS/EE Lampa y Polpaico. Circuito 1 desenergizado entre S/E Cerro Navia y estructura 40A (S/E Lampa) por puentes abiertos. Instalaciones en Riesgo: Línea 220 kV Cerro Navia - Polpaico circuito 2. Temporalidad de los Riesgos: Al inicio o durante los trabajos. Nivel de Riesgo: Bajo. Bloqueos del Jefe de Faena: El Jefe de Faena instalará tierras provisionales de bloqueo en estructuras adyacentes a la zona de trabajo, previa verificación de ausencia de tensión.	14-12-19 07:00	14-12-19 19:00	14-12-19 09:18	15-12-19 04:03
2019089702	TRANSELEC	Intervención	Programada	CERRO NAVIA - POLPAICO 220KV	CERRO NAVIA - TAP LAMPA 220KV C2 TAP LAMPA - POLPAICO 220KV C2	Desconexión solicitada por Enel Distribución, por obra asociada a nueva S/E Lampa. Al final de esta faena, S/E Lampa alimentada desde el circuito 2 de forma normal y desde el circuito 1 de forma radial desde S/E Polpaico.	Actividades: Apertura y retiro de puentes eléctricos en estructura 40A del circuito 1 de la línea, por obra de nueva S/E Lampa. Restricciones: Trabajos en circuito adyacente. No reconectar interruptores asociados a la línea de 220 kV Cerro Navia - Polpaico circuito 2. Instalaciones en Riesgo: Línea 220 kV Cerro Navia - Polpaico circuito 2. Temporalidad de los Riesgos: Al inicio o durante los trabajos. Nivel de Riesgo: Bajo. Bloqueos del Jefe de Faena: El Jefe de Faena instalará tierras provisionales de bloqueo en estructuras adyacentes a la zona de trabajo, previa verificación de ausencia de tensión.	14-12-19 00:00	14-12-19 03:00	14-12-19 00:08	14-12-19 09:18
2019089701	TRANSELEC	Desconexión	Programada	CERRO NAVIA - POLPAICO 220KV	CERRO NAVIA - TAP LAMPA 220KV C1 TAP LAMPA - POLPAICO 220KV C1	Desconexión solicitada por Enel Distribución, por obra asociada a nueva S/E Lampa. Al final de esta faena, S/E Lampa alimentada desde el circuito 2 de forma normal y desde el circuito 1 de forma radial desde S/E Polpaico.	Actividades: Apertura y retiro de puentes eléctricos en estructura 40A del circuito 1 de la línea, por obra de nueva S/E Lampa. Restricciones: Trabajos en circuito adyacente. No reconectar interruptores asociados a la línea de 220 kV Cerro Navia - Polpaico circuito 2. Instalaciones en Riesgo: Línea 220 kV Cerro Navia - Polpaico circuito 2. Temporalidad de los Riesgos: Al inicio o durante los trabajos. Nivel de Riesgo: Bajo. Bloqueos del Jefe de Faena: El Jefe de Faena instalará tierras provisionales de bloqueo en estructuras adyacentes a la zona de trabajo, previa verificación de ausencia de tensión.	14-12-19 00:00	14-12-19 03:00	14-12-19 00:08	14-12-19 09:18

2019088810	TRANSELEC	Intervención	Programada	CRUCERO - MARÍA ELENA 220KV	CRUCERO - MARÍA ELENA 220KV C1	Lavado aislación tramo E 001 a E 018, L 220kV Crucero-Maria Elena L1.	Actividades: Lavado aislación tramo E 001 a E 018. Restricciones: Subestación Crucero, 52J5 No reconectar. Subestación Ma. Elena, 52J4; 52J5 (SODI a SAESA) No reconectar. Instalaciones en Riesgo: L 220kV Crucero-Maria Elena L1. Temporalidad de los Riesgos: Durante los trabajos. Nivel de Riesgo: Bajo. Bloqueos del Jefe de Faena: No hay.	14-12-19 08:00	14-12-19 18:00	14-12-19 07:45	14-12-19 17:58
2019088577	TRANSELEC	Intervención	Programada	HUASCO - MAITENCILLO 110KV L2	HUASCO - MAITENCILLO 110KV L2 C2	LAVADO DE AISLACION ESTR. 10 a 121.	Actividades: Lavado de aislación; en instalación energizada (Simple Circuito), LAVADO DE AISLACION ESTR. 10 a 121. Restricciones: Subestación Huasco, 52 H2 con bloqueo a la reconexión inmovilizado Subestación Maitencillo, 52 H2. con bloqueo a la reconexión inmovilizado Instalaciones en Riesgo: L 110kV Huasco-Maitencillo, C2 Temporalidad de los Riesgos: Durante de los trabajos Nivel de Riesgo: Bajo Bloqueos del Jefe de Faena:	14-12-19 08:00	14-12-19 18:00	14-12-19 07:45	14-12-19 18:58
2019087669	TRANSELEC	Intervención	Programada	MAITENCILLO - CARDONES 220KV L2	MAITENCILLO - CARDONES 220KV L2 C2	LAVADO DE AISLACION ESTR. 97 a 330.	Actividades: Lavado de aislación; en instalación energizada (Doble Circuito), LAVADO DE AISLACION ESTR. 97 a 330. Restricciones: Subestación Maitencillo, 52 J2 con bloqueo a la reconexión inmovilizado Subestación Maitencillo, 52 J8 con bloqueo a la reconexión inmovilizado Subestación Cardones, 52 J5 con bloqueo a la reconexión inmovilizado Subestación Cardones, 52 J6 con bloqueo a la reconexión inmovilizado Instalaciones en Riesgo: L 220kV Maitencillo-Cardones, C2 o L 220kV Maitencillo-Cardones, C3 Temporalidad de los Riesgos: Durante de los trabajos Nivel de Riesgo: Bajo Bloqueos del Jefe de Faena:	14-12-19 08:00	14-12-19 18:00	14-12-19 08:14	14-12-19 17:58
2019087668	TRANSELEC	Intervención	Programada	MAITENCILLO - CARDONES 220KV L2	MAITENCILLO - CARDONES 220KV L2 C1	LAVADO DE AISLACION ESTR. 97 a 330.	Actividades: Lavado de aislación; en instalación energizada (Doble Circuito), LAVADO DE AISLACION ESTR. 97 a 330. Restricciones: Subestación Maitencillo, 52 J2 con bloqueo a la reconexión inmovilizado Subestación Maitencillo, 52 J8 con bloqueo a la reconexión inmovilizado Subestación Cardones, 52 J5 con bloqueo a la reconexión inmovilizado Subestación Cardones, 52 J6 con bloqueo a la reconexión inmovilizado Instalaciones en Riesgo: L 220kV Maitencillo-Cardones, C2 o L 220kV Maitencillo-Cardones, C3 Temporalidad de los Riesgos: Durante de los trabajos Nivel de Riesgo: Bajo Bloqueos del Jefe de Faena:	14-12-19 08:00	14-12-19 18:00	14-12-19 08:14	14-12-19 17:58
2019087627	TRANSELEC	Intervención	Programada	PAN DE AZUCAR - LA CEBADA 220KV	PAN DE AZUCAR - LA CEBADA 220KV C1	Evaluación de corrosión con trepado en estructuras Tramo 02: E273 a E336	Actividades: Inspección y medición de corrosión en estructuras, Evaluación de corrosión con trepado en estructuras Tramo 02: E273 a E336 Restricciones: Subestación P. Azúcar, 52 J4 con bloqueo a la reconexión inmovilizado Terceros, S/E La Cebada: 52 J2 con bloqueo a la reconexión inmovilizado Terceros, S/E Don Goyo 52 J3 con bloqueo a la reconexión inmovilizado Terceros, S/E Talinay: 52 JL con bloqueo a la reconexión inmovilizado Terceros, S/E La Cebada: 52 J4 con bloqueo a la reconexión inmovilizado Instalaciones en Riesgo: L 220kV La Cebada-Pan De Azúcar, C1 o L 220kV La Cebada - Don Goyo C2 Temporalidad de los Riesgos: Durante de los trabajos Nivel de Riesgo: Bajo Bloqueos del Jefe de Faena: Terceros, S/E La Cebada - Evaluación de corrosión en estructuras Tramo 02: E273 a E336 A disposición del jefe de faena El jefe de faena antes de iniciar los trabajos debe verificar las buenas condiciones del personal, climáticas, verificar certificación, buen estado de los equipos, herramientas y materiales a utilizar. Subestación P. Azúcar, Evaluación de corrosión en estructuras Tramo 02: E273 a E336 A disposición del jefe de faena El jefe de faena antes de iniciar los trabajos debe verificar las buenas condiciones del personal, climáticas, verificar certificación, buen estado de los equipos, herramientas y materiales a utilizar.	14-12-19 08:00	14-12-19 18:00	14-12-19 08:14	14-12-19 17:58

2019086896	TRANSELEC	Intervención	Programada	PAN DE AZUCAR - PUNTA COLORADA 220KV	PAN DE AZUCAR - PUNTA COLORADA 220KV C2	LAVADO DE AISLACION ESTR. 162 a 240A	Actividades: Lavado de aislación; en instalación energizada (Doble Circuito), LAVADO DE AISLACION ESTR. 162 a 240A Restricciones: Subestación P. Azúcar, 52 J1 con bloqueo a la reconexión inmovilizado Subestación P. Azúcar, 52 J2 con bloqueo a la reconexión inmovilizado Subestación P. Colorada, 52 J1 con bloqueo a la reconexión inmovilizado Subestación P. Colorada, 52 J2 con bloqueo a la reconexión inmovilizado Subestación P. Colorada, 52 J4 con bloqueo a la reconexión inmovilizado Subestación P. Colorada, 52 J5 con bloqueo a la reconexión inmovilizado Instalaciones en Riesgo: L 220kV Pan de Azúcar-Punta Colorada, C2 o L 220kV Pan de Azúcar-Punta Colorada, C1 Temporalidad de los Riesgos: Durante de los trabajos Nivel de Riesgo: Bajo Bloqueos del Jefe de Faena:	14-12-19 08:00	14-12-19 18:00	14-12-19 08:14	14-12-19 17:58
2019086895	TRANSELEC	Intervención	Programada	PAN DE AZUCAR - PUNTA COLORADA 220KV	PAN DE AZUCAR - PUNTA COLORADA 220KV C1	LAVADO DE AISLACION ESTR. 162 a 240A	Actividades: Lavado de aislación; en instalación energizada (Doble Circuito), LAVADO DE AISLACION ESTR. 162 a 240A Restricciones: Subestación P. Azúcar, 52 J1 con bloqueo a la reconexión inmovilizado Subestación P. Azúcar, 52 J2 con bloqueo a la reconexión inmovilizado Subestación P. Colorada, 52 J1 con bloqueo a la reconexión inmovilizado Subestación P. Colorada, 52 J2 con bloqueo a la reconexión inmovilizado Subestación P. Colorada, 52 J4 con bloqueo a la reconexión inmovilizado Subestación P. Colorada, 52 J5 con bloqueo a la reconexión inmovilizado Instalaciones en Riesgo: L 220kV Pan de Azúcar-Punta Colorada, C2 o L 220kV Pan de Azúcar-Punta Colorada, C1 Temporalidad de los Riesgos: Durante de los trabajos Nivel de Riesgo: Bajo Bloqueos del Jefe de Faena:	14-12-19 08:00	14-12-19 18:00	14-12-19 08:14	14-12-19 17:58
2019085564	TRANSELEC	Intervención	Programada	CONDORES - PARINACOTA 220KV	CONDORES - PARINACOTA 220KV C1	S/E Parinacota: A solicitud de CGE Bloqueo a la Reconexion, por Remate de Obras Civiles, Prearmado, montaje de equipos, Montaje de estructuras, trabajos de: enfierradura, hormigonado, decimbre, excavaciones malla tierra.	S/E Parinacota: A solicitud de CGE Bloqueo a la Reconexion, por Remate de Obras Civiles, Prearmado, montaje de equipos, Montaje de estructuras, trabajos de: enfierradura, hormigonado, decimbre, excavaciones malla tierra. Restricciones: Subestación Cóndores: 52J2 con bloqueo a la reconexión Instalaciones en Riesgo: L220kV Cóndores - Parinacota Temporalidad de los Riesgos: Durante los trabajos Nivel de Riesgo: Bajo Bloqueos del Jefe de Faena: no hay	14-12-19 08:00	14-12-19 18:00	14-12-19 08:05	14-12-19 19:08
2019080983	TRANSELEC	Intervención	Programada	CANUTILLAR - PUERTO MONTT 220KV	CANUTILLAR - PUERTO MONTT 220KV C2	Trabajos coordinados con COLBUN.	Actividades: Roce y despeje franja de servidumbre. Restricciones: Restricción a la reconexión. Instalaciones en Riesgo: Línea 220 kV Canutillar - Puerto Montt, C1 o Línea 220 kV Canutillar - Puerto Montt, C2. Temporalidad de los Riesgos: Durante los trabajos. Nivel de Riesgo: Bajo.	14-12-19 08:00	14-12-19 18:00	14-12-19 08:12	14-12-19 18:14
2019080982	TRANSELEC	Intervención	Programada	CANUTILLAR - PUERTO MONTT 220KV	CANUTILLAR - PUERTO MONTT 220KV C1	Trabajos coordinados con COLBUN.	Actividades: Roce y despeje franja de servidumbre. Restricciones: Restricción a la reconexión. Instalaciones en Riesgo: Línea 220 kV Canutillar - Puerto Montt, C1 o Línea 220 kV Canutillar - Puerto Montt, C2. Temporalidad de los Riesgos: Durante los trabajos. Nivel de Riesgo: Bajo.	14-12-19 08:00	14-12-19 18:00	14-12-19 08:12	14-12-19 18:14

ANEXO Nº 5

Informes de trabajos y fallas de instalaciones ingresados en el sistema del Coordinador Eléctrico Nacional por la(s) empresa(s) Chilquinta S.A. y Colbún S.A.

Resumen - **Subestación**

Resumen

Número:

2019003459

Solicitante:

Despacho Transmisión

Empresa:

CHILQUINTA

Tipo de Origen:

Externo

SubEstación:

S/E SAN FELIPE

Falla Sobre:

transformador

Elementos

Tipo: transformadores2d - SAN FELIPE 110/12KV 25MVA 2
Nombre : SAN FELIPE 110/12KV 25MVA 2
Fecha Perturbacion : 14-12-2019 12:55
Fecha Normaliza : 14-12-2019 19:30
Protección : .
Interruptor : 110 kV
Consumo : 8
Comentario : .

Tipo: transformadores2d - SAN FELIPE 44/12KV 10MVA
Nombre : SAN FELIPE 44/12KV 10MVA
Fecha Perturbacion : 14-12-2019 12:55
Fecha Normaliza : 14-12-2019 19:30
Protección : .
Interruptor : .
Consumo : .
Comentario : .

Tipo: transformadores2d - SAN FELIPE 115/13.2KV 50MVA 1
Nombre : SAN FELIPE 115/13.2KV 50MVA 1
Fecha Perturbacion : 14-12-2019 12:55
Fecha Normaliza : 14-12-2019 19:30
Protección : .
Interruptor : 110 kV
Consumo : 12
Comentario : .

¿Produce otra indisponibilidad?

No

Zona Afectada

Valparaíso

Comuna

Los Andes

Tipo Causa

Causa Presunta
Causa Principal
Se investiga

Comentarios Tipo Causa:

Se investiga

Causas

-Fenómeno Físico: Otros
-Elemento: Conductores
-Fenómeno Eléctrico: Bajo voltaje
-Operación de los interruptores: Opera según lo esperado

Comentarios Causas:

-Fenómeno Físico: .
-Elemento: .
-Fenómeno Eléctrico: .
-Operación de los interruptores: .

Observaciones:

-Observaciones: Sin suministro la S/E San Felipe por operación de las lineas 110 KV Aconcagua - Esperanza 1 y Totoralillo Chagres 2 A de Colbun. Al momento de la falla se reporta incendio bajo el Arranque 110 KV San Felipe 1 y 2
-Acciones Inmediatas: Se informa al CEN y se coordina personal al sector para iniciar reparación de conductores cortados en los arranques 110 KV 1 y 2 de S/E San Felipe.
-Hechos Sucedidos: .
-Acciones Correctivas a Corto Plazo: .
-Acciones Correctivas a Largo Plazo: .

Afecta SSCC:

No

Afecta Medidores:

No

Afecta Protecciones:

No

Consumo:

Consumo Regulado

Distribuidoras Afectadas

CHILQUINTA / Perd. Estm. de Potencia: 20 / Región : Valparaíso

Retorno Automatico:

No Tiene Retorno AutomÃ¡tico

Fecha / Hora Perturbación de la Solicitud:

14-12-2019 12:55

Fecha / Hora Estimada Retorno:

14-12-2019 19:30

Fecha / Hora Efectiva Retorno:

14-12-2019 19:30

Resumen - **Subestación**

Resumen

Número:

2019003458

Solicitante:

Despacho Transmisión

Empresa:

CHILQUINTA

Tipo de Origen:

Externo

SubEstación:

S/E SAN RAFAEL (CHILQUINTA)

Falla Sobre:

transformador

Elementos

Tipo: transformadores2d - SAN RAFAEL 110/12KV 25MVA 1
Nombre : SAN RAFAEL 110/12KV 25MVA 1
Fecha Perturbacion : 14-12-2019 12:55
Fecha Normaliza : 14-12-2019 16:57
Protección : .
Interruptor : 110 KV
Consumo : 17
Comentario : Al momento de la falla tenia la carga del Transf. N°2 el cual estaba desconectado .

Tipo: transformadores2d - SAN RAFAEL 110/12KV 22.5MVA 2
Nombre : SAN RAFAEL 110/12KV 22.5MVA 2
Fecha Perturbacion : 14-12-2019 12:55
Fecha Normaliza : 14-12-2019 16:57
Protección : .
Interruptor : .
Consumo : 0
Comentario : Al momento de la falla estaba desconectado por CF y la carga transferida hacia el TR-1

Tipo: transformadores2d - SAN RAFAEL 110/23 KV 30MVA 3
Nombre : SAN RAFAEL 110/23 KV 30MVA 3
Fecha Perturbacion : 14-12-2019 12:55
Fecha Normaliza : 14-12-2019 16:57
Protección : .
Interruptor : 110 kv
Consumo : 7
Comentario : .

¿Produce otra indisponibilidad?

No

Zona Afectada

Valparaíso

Comuna

Los Andes

Tipo Causa

Causa Presunta
Causa Principal
Se investiga

Comentarios Tipo Causa:

Se investiga.

Causas

-Fenómeno Físico: Otros
-Elemento: Conductores
-Fenómeno Eléctrico: Bajo voltaje
-Operación de los interruptores: Opera según lo esperado

Comentarios Causas:

-Fenómeno Físico: .
-Elemento: .
-Fenómeno Eléctrico: .
-Operación de los interruptores: .

Observaciones:

-Observaciones: Sin suministro la S/E San Rafael por operación de las lineas 110 KV Aconcagua - Esperanza 1 y Totoralillo Chagres 2 A de Colbun. Al momento de la falla se reporta incendio bajo el Arranque 110 KV San Felipe 1 y 2
-Acciones Inmediatas: Se informa al CEN y se coordina personal al sector para iniciar reparación de conductores cortados en los arranques 110 KV 1 y 2 de S/E San Felipe.
-Hechos Sucedidos: .
-Acciones Correctivas a Corto Plazo: .
-Acciones Correctivas a Largo Plazo: .

Afecta SSCC:

No

Afecta Medidores:

No

Afecta Protecciones:

No

Consumo:

Consumo Regulado

Distribuidoras Afectadas

CHILQUINTA / Perd. Estm. de Potencia: 24 / Región : Valparaíso

Retorno Automatico:

No Tiene Retorno AutomÃ¡tico

Fecha / Hora Perturbación de la Solicitud:

14-12-2019 12:55

Fecha / Hora Estimada Retorno:

14-12-2019 16:57

Fecha / Hora Efectiva Retorno:

14-12-2019 16:57

Resumen - **Línea**

Resumen

Número:

2019003451

Solicitante:

COLBUN

Empresa:

COLBUN

Tipo de Origen:

Externo

Línea:

CHAGRES - TOTORALILLO 110KV

Tramo:

Tipo: secciones_tramos - TAP SAN FELIPE - TAP SAN RAFAEL 110KV C2
Nombre : TAP SAN FELIPE - TAP SAN RAFAEL 110KV C2
Fecha Perturbacion : 14/12/2019 12:52
Fecha Normaliza : 14/12/2019 19:17
Protección : Protección de distancia
Interruptor : 52H2A
Consumo : 45.2 MW
Comentario : .

Tipo: secciones_tramos - SECCION 1 DE 2 110KV C2
Nombre : SECCION 1 DE 2 110KV C2
Fecha Perturbacion : 14/12/2019 12:52
Fecha Normaliza : 14/12/2019 19:17
Protección : Protección de distancia
Interruptor : 52H2A
Consumo : .
Comentario : .

Tipo: secciones_tramos - SECCION 2 DE 2 110KV C2
Nombre : SECCION 2 DE 2 110KV C2
Fecha Perturbacion : 14/12/2019 12:52
Fecha Normaliza : 14/12/2019 19:17
Protección : Protección de distancia
Interruptor : 52H2A
Consumo : .
Comentario : .

Tipo: secciones_tramos - F CHAGRES - TAP SAN FELIPE 110KV C2
Nombre : F CHAGRES - TAP SAN FELIPE 110KV C2
Fecha Perturbacion : 14/12/2019 12:52
Fecha Normaliza : 14/12/2019 19:17
Protección : Protección de distancia
Interruptor : 52L2A (este se encontraba abierto)

Consumo : .
Comentario : .

Zona Afectada

Valparaíso

Comuna

Tipo Causa

Causa Presunta
Causa Principal

Comentarios Tipo Causa:

Opera Línea de transmisión 110 Kv Aconcagua-Esperanza circuito 2A debido a caída de 2 conductores (fase 2 y 3) en arranque a S/E San Felipe entre torres 7 y 8 producto de incendio de pastizales en sector puente Pocuro.

Causas

-Fenómeno Físico: Incendio bajo una línea o en proximidades de instalaciones (natural o provocado, ej. quema de pastizal)
-Elemento: Conductores
-Fenómeno Eléctrico: Protección de tierra
-Operación de los interruptores: Opera según lo esperado

Comentarios Causas:

-Fenómeno Físico: Opera Línea de transmisión 110 Kv Aconcagua-Esperanza circuito 2A debido a caída de 2 conductores (fase 2 y 3) en arranque a S/E San Felipe entre torres 7 y 8 producto de incendio de pastizales en sector puente Pocuro.
-Elemento: Opera Línea de transmisión 110 Kv Aconcagua-Esperanza circuito 2A debido a caída de 2 conductores (fase 2 y 3) en arranque a S/E San Felipe entre torres 7 y 8 producto de incendio de pastizales en sector puente Pocuro.
-Fenómeno Eléctrico: Opera Línea de transmisión 110 Kv Aconcagua-Esperanza circuito 2A debido a caída de 2 conductores (fase 2 y 3) en arranque a S/E San Felipe entre torres 7 y 8 producto de incendio de pastizales en sector puente Pocuro.
-Operación de los interruptores: Opera Línea de transmisión 110 Kv Aconcagua-Esperanza circuito 2A debido a caída de 2 conductores (fase 2 y 3) en arranque a S/E San Felipe entre torres 7 y 8 producto de incendio de pastizales en sector puente Pocuro.

Observaciones:

-Observaciones: Siendo las 12:52 hrs. Opera Línea de transmisión 110 Kv Aconcagua-Esperanza circuito 2A debido a caída de 2 conductores (fase 2 y 3) en arranque a S/E San Felipe entre torres 7 y 8 producto de incendio de pastizales en sector puente Pocuro.
-Acciones Inmediatas: .
-Hechos Sucedidos: .
-Acciones Correctivas a Corto Plazo: .
-Acciones Correctivas a Largo Plazo: .

Afecta SSCC:

No

Afecta Medidores:

No

Afecta Protecciones:

No

Consumo:

Consumo Regulado

Retorno Automatico:

Fecha / Hora Perturbación de la Solicitud:

14-12-2019 12:52

Fecha / Hora Estimada Retorno:

14-12-2019 21:44

Fecha / Hora Efectiva Retorno:

14-12-2019 19:17

Resumen - **Línea**

Resumen

Número:

2019003444

Solicitante:

COLBUN

Empresa:

COLBUN

Tipo de Origen:

Externo

Línea:

ESPERANZA - ACONCAGUA 110KV

Tramo:

Tipo: secciones_tramos - TAP LOS MAQUIS - ACONCAGUA 110KV C1
Nombre : TAP LOS MAQUIS - ACONCAGUA 110KV C1
Fecha Perturbacion : 14/12/2019 12:55
Fecha Normaliza : 14/12/2019 16:44
Protección : .
Interruptor : H3
Consumo : .
Comentario : .

Tipo: secciones_tramos - TAP SAN FELIPE - TAP SAN RAFAEL 110KV C1
Nombre : TAP SAN FELIPE - TAP SAN RAFAEL 110KV C1
Fecha Perturbacion : 14/12/2019 12:55
Fecha Normaliza : 14/12/2019 16:44
Protección : .
Interruptor : .
Consumo : 45.2
Comentario : .

Tipo: secciones_tramos - TAP SAN RAFAEL - TAP LOS MAQUIS 110KV C1
Nombre : TAP SAN RAFAEL - TAP LOS MAQUIS 110KV C1
Fecha Perturbacion : 14/12/2019 12:55
Fecha Normaliza : 14/12/2019 16:44
Protección : .
Interruptor : .
Consumo : 0
Comentario : .

Tipo: secciones_tramos - ESPERANZA - TAP F CHAGRES 110KV C1
Nombre : ESPERANZA - TAP F CHAGRES 110KV C1
Fecha Perturbacion : 14/12/2019 12:55
Fecha Normaliza : 14/12/2019 16:44
Protección : .
Interruptor : .

Consumo : .
Comentario : .

Tipo: secciones_tramos **-** TAP F CHAGRES - TAP SAN FELIPE 110KV C1
Nombre : TAP F CHAGRES - TAP SAN FELIPE 110KV C1
Fecha Perturbacion : 14/12/2019 12:55
Fecha Normaliza : 14/12/2019 16:44
Protección : .
Interruptor : .
Consumo : .
Comentario : .

Zona Afectada

Valparaíso

Comuna

Tipo Causa

Causa Presunta
Causa Principal

Comentarios Tipo Causa:

Opera Línea de transmisión 110kV Aconcagua Esperanza circuito 1 debido a caída de 2 conductores (fase 2 y 3) en arranque a S/E San Felipe entre torres 7 y 8 producto de incendio de pastizales en sector Puente Pocuro.

Causas

-Fenómeno Físico: Incendio bajo una línea o en proximidades de instalaciones (natural o provocado, ej. quema de pastizal)
-Elemento: Conjunto aislación línea
-Fenómeno Eléctrico: Protección diferencial de línea
-Operación de los interruptores: Opera según lo esperado

Comentarios Causas:

-Fenómeno Físico: Opera Línea de transmisión 110kV Aconcagua Esperanza circuito 1 debido a caída de 2 conductores (fase 2 y 3) en arranque a S/E San Felipe entre torres 7 y 8 producto de incendio de pastizales en sector Puente Pocuro.
-Elemento: Opera Línea de transmisión 110kV Aconcagua Esperanza circuito 1 debido a caída de 2 conductores (fase 2 y 3) en arranque a S/E San Felipe entre torres 7 y 8 producto de incendio de pastizales en sector Puente Pocuro.
-Fenómeno Eléctrico: Opera Línea de transmisión 110kV Aconcagua Esperanza circuito 1 debido a caída de 2 conductores (fase 2 y 3) en arranque a S/E San Felipe entre torres 7 y 8 producto de incendio de pastizales en sector Puente Pocuro.
-Operación de los interruptores: Opera Línea de transmisión 110kV Aconcagua Esperanza circuito 1 debido a caída de 2 conductores (fase 2 y 3) en arranque a S/E San Felipe entre torres 7 y 8 producto de incendio de pastizales en sector Puente Pocuro.

Observaciones:

-Observaciones: Siendo las 12:55 hrs. Opera Línea de transmisión 110kV Aconcagua Esperanza circuito 1 debido a caída de 2 conductores (fase 2 y 3) en arranque a S/E San Felipe entre torres 7 y 8 producto de incendio de pastizales en sector Puente Pocuro.
-Acciones Inmediatas: Aviso al Coordinador
-Hechos Sucedidos: Inspección en terreno
-Acciones Correctivas a Corto Plazo: .
-Acciones Correctivas a Largo Plazo: .

Afecta SSCC:

No

Afecta Medidores:

No

Afecta Protecciones:

No

Consumo:

Libre

Distribuidoras Afectadas

CHILQUINTA / Perd. Estm. de Potencia: 452.0 / Región :

Retorno Automatico:

Fecha / Hora Perturbación de la Solicitud:

14-12-2019 12:55

Fecha / Hora Estimada Retorno:

14-12-2019 23:59

Fecha / Hora Efectiva Retorno:

14-12-2019 21:44

ANEXO Nº 6

Otros antecedentes aportados por la(s) empresa(s) Chilquinta S.A. y Colbún S.A.

Informe de Falla

Empresa	**CHILQUINTA**
Código de identificación	**IF-TX-72**
Versión	1

Operación automática línea 110 kV Aconcagua-Esperanza cto. 1 de Colbún

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1. OBJETO

Aportar la información solicitada por el CEN, debido a una desconexión intempestiva o limitación en las instalaciones de Chilquinta Energía, de acuerdo a lo exigido por el procedimiento DO "Informe de falla de los Coordinados".

2. ANTECEDENTES GENERALES

2.1. Detalles de la instalación fallada

Propietario Instalación Afectada:	Chilquinta Energía S.A.
RUT Propietario:	96.813.520-1
Representante legal Propietario:	José Morales Devia
Dirección Propietario:	Av. Cerro El Plomo 3919, Placilla, Valparaíso

Nombre Instalación:	TAP 110 kV San Felipe
Tipo de Instalación:	Línea de Transmisión
Tensión de Línea:	110 kV
Segmento:	Transmisión zonal
Tipo de Elemento Fallado:	Conductor
Elemento o Equipo Fallado:	Línea Transmisión –Arranque 110 kV San Felipe

2.2. Resumen del evento

Referencia Informe CEN	2019003458 y 2019003459
Fecha inicio:	14 de Diciembre de 2019
Hora inicio:	12:55:16 hrs. S/E San Felipe y San Rafael 13:26:12 hrs. S/E Rio Blanco y Juncal
Fecha termino:	14 de Diciembre de 2019
Hora término:	19:30 hrs. S/E San Felipe 16:57 hrs. S/E San Rafael 17:55 hrs. S/E Rio Blanco 17:55 hrs. S/E Juncal
Duración:	6 Horas y 35 minutos
Equipos afectados:	SS/EE San Felipe - San Rafael
Consumo interrumpido:	20 MW S/E San Felipe 24 MW S/E San Rafael 0,2 MW S/E Rio Blanco 0,3 MW S/E Juncal
Porcentaje de Desconexión	100% de los equipos afectados

Comuna donde se origina la falla:	San Felipe
Comunas afectadas por la Falla	Los Andes- Calle Larga- San Esteban –Rinconada San Felipe- Putaendo- Santa Maria
Origen de la Falla	Fuerza Mayor
Fenómeno Físico	TX2
Elemento	ACC2
Fenómeno Eléctrico	BA27
Modo	14

2.3. Descripción de la operación.

Operación automática de línea 110 kV Aconcagua-Esperanza cto. 1 y LT 110 kV Totoralillo-Chagres 2 de Colbún, lo que origina la pérdida de suministros en las SSEE San Felipe, San Rafael, Rio Blanco y Juncal de Chilquinta Energía.

2.4. Cronología de eventos.

12:45 hrs. Se recibe información de incendio bajo línea transmisión que alimenta la S/E San Felipe en sector cruce tierras Blancas, Pocuro. El incendio se inició por quema de material combustible (neumáticos) debajo de las redes de trasmisión, cuestión que se realiza al interior de un inmueble particular, por parte del propietario de ese predio o, de terceros vinculados directa o indirectamente al mismo.
Se informa al CEN y Colbun.

12:52:32 hrs. En S/E San Felipe Llegan Alarmas por falta de tensión en Barras 12 KV N°2, por Operación automática de línea 110 kV Totoralillo – Chagres cto. 2A de Colbún.

12:54 hrs. En S/E San Felipe, se verifica que no se ejecutó la transferencia automática 110 KV, se procede a recuperar consumos a través del Transf. N° 1.

12:54:45 hrs. En S/E San Felipe, se cierra Interruptor 12 kV Acoplador de Barras, recuperando los consumos asociados a la barra 12 kV N°2.

12:55:16 hrs. En S/E San Felipe y S/E San Rafael Llegan Alarmas por falta de tensión, por Operación automática de línea 110 kV Aconcagua – Esperanza 1 de Colbún.

Se informa al CEN y se confirma con Colbun la operación de la línea.

13:26:12 hrs. Por solicitud de Bomberos se procede realizar microcorte a las líneas 44 kV Las Vegas - Andes 1 y 2 afectando transitoriamente a las SSEE Chagres y Panquehue, para abrir los desconectadores seccionadores de línea 1 y 2 en Panquehue, esto para desconectar los tramos de línea 44 kV Panquehue – FFCC Andes 1 y 2 que estaban energizando la zona del incendio, quedan afectados los consumos de S/E Rio Blanco y Juncal.

Se ingresan solicitudes de desconexión por curso forzoso CF-92025 y CF-92026.

13:54 hrs. Personal de LLTT informa que se procederá abrir puentes 110 kV en el arranque San Felipe N°1 en estructura 1 portal auxiliar para aislar conductores dañados en el cto. 1 y posterior reparación de conductores cortados en el arranque San Felipe cto. 2.

14:16 hrs. Se solicita a Colbun aterrizar los ctos. 1 y 2 para abrir puentes en el arranque San Felipe cto.1 y reparar conductores cortados en el arranque San Felipe 2.

14:25 hrs. Colbun informa aterrizada la LT 110 KV Aconcagua – Esperanza cto.1.

15:28 hrs. Colbun informa aterrizada la LT 110 KV Totoralillo – Chagres cto.2A.

15:57 hrs. Se inician trabajos de apertura de puentes en la estr. 1 del Arranque 110 kV San Felipe 1.

16:22 hrs. Finalizan trabajos de apertura de puentes 110 kV en estructura 1 del arranque San Felipe 1.
Se informa al CEN y se coordina con Colbun la energización de la LT 110 KV Aconcagua – Esperanza cto. 1 hasta puentes abiertos y posterior recuperación de consumos de la S/E San Rafael.

16:44 hrs. Colbun informa energizada la LT 110 KV Aconcagua – Esperanza cto. 1 hasta puentes abiertos.
Se informa al CEN y se coordina recuperación de los consumos de S/E San Rafael.

16:48 hrs. Inician trabajos de reparación de conductores cortados en fase inferior y media entre estructuras 7 y 8 del Arranque San Felipe 2.

16:57:41 hrs. Recuperado el 100 % de los consumos de la S/E San Rafael
Quedan recuperados los consumos del Alimentador 12 kV Bucalemu de S/E San Felipe vía red MT.

17:35 hrs. Personal de LLTT informa que el tramo de línea 44 kV Panquehue – FFCC Andes cto. 2 se encuentra despejado y en condiciones de ser energizado.
Se coordina la energización y recuperación de los consumos de S/E Rio Blanco, Juncal y la energización del transformador 44/12 kV N° 3 de San Felipe por 44 KV desde sistema Las Vegas, para recuperar los consumos de los Alimentadores 12 KV Almendral y San Felipe.

17:40:31 hrs. Realizado microcorte a S/E Panquehue para cerrar desconectador seccionador de línea del cto.2 en Panquehue.
Queda energizado el tramo de línea 44 kV Panquehue – FFCC Andes cto.2.

17:47:54 hrs. Energizado el transformador 44/12 KV N° 3 de S/E San Felipe desde sistema Las Vegas por 44 kV.
Se procede a energizar barra 12 kV en San Felipe.

17:49:39 hrs. Cerrado interruptor de cabecera del Alimentador 12 kV Almendral de S/E San Felipe.

17:50 hrs. Recuperados los consumos de Alimentador 12 kV Tocornal de S/E San Felipe vía red MT.

17:51:21 hrs. Cerrado interruptor de cabecera del Alimentador 12 kV San Felipe de S/E San Felipe.

17:55:06 hrs. En S/E FFCC Andes cerrado interruptor 44 kV de la LT Las Vegas – Andes 2, se recuperan los consumos de las SSEE Rio Blanco y Juncal.

19:00 hrs. Finalizan trabajos de reparación de conductores cortados en fase inferior y media entre estructuras E-7 y E-8 del Arranque San Felipe 2.
Se continuará con trabajos de reparación de conductores cortados en el arranque San Felipe 1 entre puentes abiertos y S/E San Felipe.
Se informa al CEN y se coordina con Colbun la energización de la LT 110 kV Totoralillo - Chagres cto. 2A y posterior recuperación de consumos de la S/E San Felipe.

19:17 hrs. Colbun informa energizada la LT 110 kV Totoralillo - Chagres cto. 2A.
Se informa al CEN y se coordina recuperación de los consumos de S/E San Felipe.

19:29:09 hrs. Se realiza apertura del interruptor 12 kV del transformador 44/12 kV N°3 de S/E San Felipe (que estaba siendo energizado desde S/E Las Vegas), para proceder a energizar la Barra 12 kV 1 y 2 desde el transformador 110/12 kV N°1 de San Felipe.
Considera microcorte a los Alimentadores 12 kV Almendral y San Felipe.

19:29:14 hrs. Cerrado Interruptor 12 kV del transformador 110/12 kV N°1.

19:30:07 hrs. Cerrados los interruptores de cabecera de los Alimentadores 12 kV Palomar, Putaendo y Traslaviña.
Finalizan las maniobras de recuperación de consumos afectados por la falla, quedando el 100% de los consumos normalizados.

19:39 hrs. Finalizan trabajos de reparación de conductores cortados en el Arranque San Felipe 1.
Se coordina la desconexión de la LT Aconcagua – Esperanza cto. 1 para proceder con el cierre de puentes abiertos en la estructura E-1 del Arranque San Felipe.

19:42 hrs. Cerrado interruptor de cabecera del Alimentador 12 kV Tocornal por normalización de esquema en red de distribución.

20:08 hrs. Se realiza cambio de Alimentación de la S/E San Rafael desde Arranque 110 kV N°1 al Arranque 110 kV N°2.
Se informa a Colbun y se solicita la desconexión de la LT 110 kV Aconcagua – Esperanza 1 para realizar cierre de puentes.

20:42 hrs. Colbun informa desenergizada la LT 110 kV Aconcagua – Esperanza 1.

21:00 hrs. Cerrado interruptor de cabecera del Alimentador 12 kV Bucalemu por normalización de esquema en red de distribución.

21:05 hrs. Finalizan trabajos de cierre de puentes 110 kV en estructura 1 del arranque San Felipe 1.
Se informa al CEN y se coordina con Colbun la energización de la LT 110 kV Aconcagua – Esperanza cto. 1 y posterior normalización de topología en las SSEE San Rafael y San Felipe.

21:32 hrs. Colbun informa energizada la LT 110 kV Aconcagua – Esperanza 1.

21:37 hrs. Aterrizado el tramo de línea 44 kV Panquehue – FFCC Andes cto.1 para realizar apertura de puentes en la estructura E-199.

21:41 hrs. Se deja la S/E San Felipe energizada por el arranque 110 kV N°1.

21:40 hrs. Se inician trabajos para realizar apertura de puentes en la estructura 199 del tramo línea 44 kV Panquehue – FFCC Andes cto.1 y posterior reparación de conductor dilatado entre las estructuras E-195 a E-197 por el incendio.

22:15 hrs. Normalizado esquema en 110 KV de la S/E San Rafael.

22:09 hrs. Finalizan trabajos de apertura de puentes en la estructura E-199 del tramo línea 44 kV Panquehue – FFCC Andes cto.1.

Día 15/12

03:57 hrs. Realizado microcorte al circuito 2 de la LT 44 kV Las Vegas – FFCC Andes, afectando a S/E Panquehue, para apertura de Desconectador seccionador de línea en S/E Panquehue sin tensión, como preparación de esquema para reparación de conductor entre estructuras E-195 y E-197.

10:34 hrs. Aterrizado el vto. 1 Tramo S/E Panquehue- Puentes abiertos en estructura E-199, para reparación de conductor afectado por incendio (CF-92066).

11:38 hrs. Aterrizado el Cto. 2 tramo SS/EE Panquehue - FFCC Andes, con tierras en SSEE San Felipe y FFCC Andes (CF-92067).

Se da inicio a trabajos de reparación de conductor entre las estructuras E-196 y E-197 del Cto. 1 en 44 kV.

13:30 hrs. Personal informa reemplazado el conductor dañado por incendio entre los vanos E-196 y E-197 por el Cto. 1. del tramo línea 44 KV Panquehue – FFCC Andes.

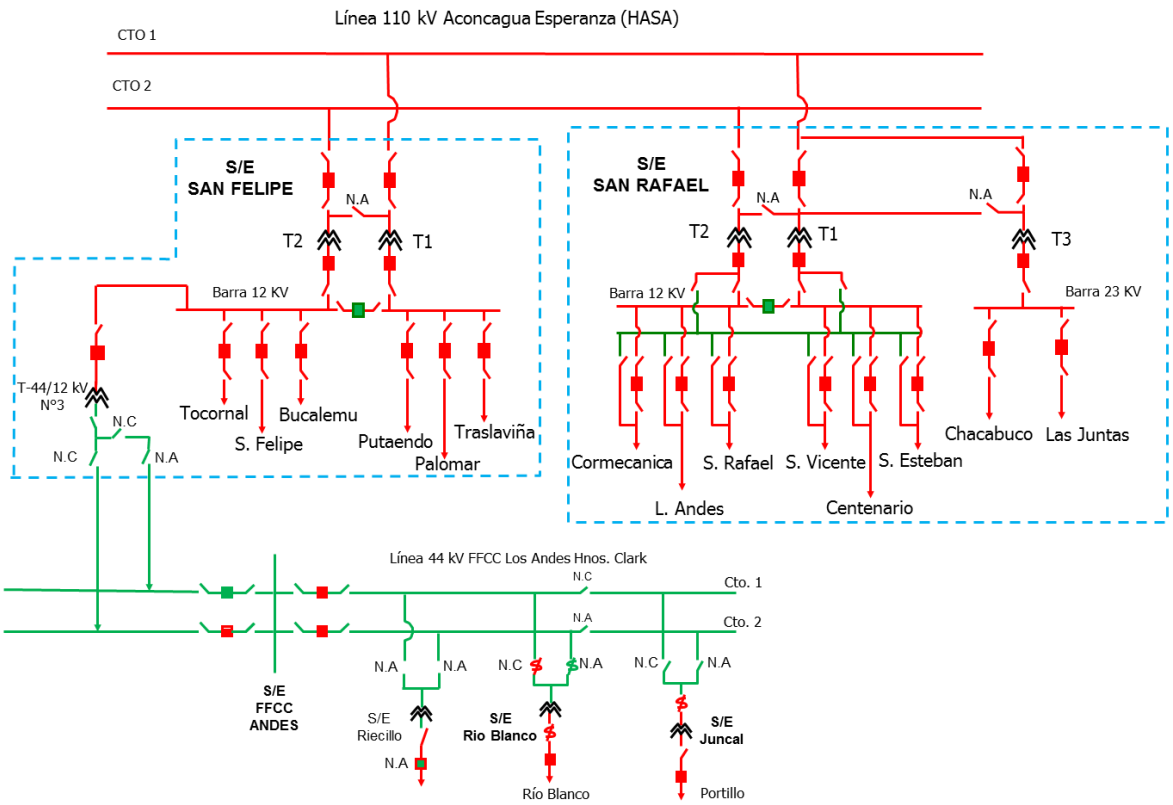
15:55 hrs. Se procede a aterrizar el Cto. 1. del tramo línea 44 KV Panquehue – FFCC Andes para realizar cierre de puentes en estructura E-199.

17:12 hrs. Desconectado el Cto. 1 de la LT 44KV Las Vegas – FFCC Andes, para cierre del desconectador Seccionador Cto. 1 en S/E Panquehue.

17:13 hrs. Energizada en vacío el Cto. 1 de la LT 44KV Las Vegas – FFCC Andes, queda cerrado el desconectador Seccionador Cto. 1 en S/E Panquehue.

17:38 hrs. Normalizado el esquema en 44 kV (Cto. 1 con carga de SE Chagres por el TR-2 y Seccionador cerrado, Cto. 2 con la carga de SE Panquehue por el TR-1 y seccionador abierto, SSEE Rio Blanco y Juncal por TR-3 de San Felipe y Cto 2 de LV-FFCC Andes.

2.5. Esquema topológico sistema afectado.



2.6. Detalle de consumos afectados

Instalaciones afectadas	Detalle			Horarios		
Subestaciones	Transformador	N°	MW	Hora desconexión	Hora recuperación	Duración
S/E San Felipe	110/12 kV	1	12,00	14-12-2017 12:55:16	14-12-2017 19:30:07	6:34:51
	110/12 kV	2	8,00	14-12-2017 12:55:16	14-12-2017 19:30:07	6:34:51
S/E Rio Blanco	44/12 kV	1	0,20	14-12-2017 13:26:12	14-12-2017 17:55:06	4:28:54
S/E Juncal	44/12 kV	1	0,30	14-12-2017 13:26:12	14-12-2017 17:55:06	4:28:54
S/E San Rafael	110/12 kV	1	17,00	14-12-2017 12:55:16	14-12-2017 16:57:41	4:02:25
	110/12 kV	2	0,00	14-12-2017 12:55:16	14-12-2017 16:57:41	4:02:25
	110/23 kV	3	7,00	14-12-2017 12:55:16	14-12-2017 16:57:41	4:02:25
		Total	**44,50**			

DETALLE CLIENTES AFECTADOS								
Subestaciones	**Transformador**	**N°**	**MW**	**Alimentador**	**Clientes**	**Hora desconexión**	**Hora recuperación**	**Clientes**
S/E San Felipe	110/12 kV	1	12,00	El Almendral	6.746	14-12-2017 12:55:16	14-12-2017 17:49:39	6.746
				Putaendo	8.484	14-12-2017 12:55:16	14-12-2017 19:29:43	8.484
				Palomar	1.445	14-12-2017 12:55:16	14-12-2017 13:34:00	225
						14-12-2017 12:55:16	14-12-2017 19:29:58	1.220
				Traslaviña	8.702	14-12-2017 12:55:16	14-12-2017 19:30:07	8.702
	110/12 kV	2	8,00	Tocornal	5.136	14-12-2017 12:55:16	14-12-2017 17:49:39	755
						14-12-2017 12:55:16	14-12-2017 19:42:03	4.381
				San Felipe	8.030	14-12-2017 12:55:16	14-12-2017 17:51:21	2.648
						14-12-2017 12:55:16	14-12-2017 18:15:00	3.103
						14-12-2017 12:55:16	14-12-2017 19:30:07	2.279
				Bucalemu	916	14-12-2017 12:55:16	14-12-2017 16:56:00	355
						14-12-2017 12:55:16	14-12-2017 17:11:00	561
	44/12 kV	3	0,00	N/A		14-12-2017 12:55:16	14-12-2017 17:48:54	
S/E Rio Blanco	44/12 kV	1	0,20	Rio Blanco	378	14-12-2017 13:26:12	14-12-2017 17:55:06	378
S/E Juncal	44/12 kV	1	0,30	Portillo	17	14-12-2017 13:26:12	14-12-2017 17:55:06	17
S/E San Rafael	110/12 kV	1	17,00	San Vicente	5.343	14-12-2017 12:55:16	14-12-2017 16:56:17	5.343
				Centenario	12.130	14-12-2017 12:55:16	14-12-2017 16:55:57	12.130
				San Esteban	3.974	14-12-2017 12:55:16	14-12-2017 16:55:39	3.974
	110/12 kV	2	0,00	Cormecánica	4	14-12-2017 12:55:16	14-12-2017 16:56:54	4
				Los Andes	8.099	14-12-2017 12:55:16	14-12-2017 16:56:39	8.099
				San Rafael	2.941	14-12-2017 12:55:16	14-12-2017 16:56:17	1.573
						14-12-2017 12:55:16	14-12-2017 17:11:00	1.368
	110/23 kV	3	7,00	Chacabuco	4.336	14-12-2017 12:55:16	14-12-2017 16:57:41	4.336
				Las Juntas	8.458	14-12-2017 12:55:16	14-12-2017 16:57:25	8.458
		Total	**44,50**					

3. EVENTOS SCADA

Los eventos registrados por el sistema SCADA se encuentran en el archivo **Eventos SCADA.xls** adjunto a este informe.

4. PROTECCIONES

4.1. Análisis de la actuación del esquema de protecciones

No hay comentarios relevantes.

4.2. Ajustes

No hay comentarios relevantes.

4.3. Registros oscilográficos.

No hay comentarios relevantes.

4.4. Registro Eventos

No hay comentarios relevantes.

5. ANTECEDENTES RELEVANTES

5.1. Información Mantenimiento Líneas de Transmisión.

El Área de Mantenimiento de Transmisión se dirige a San Felipe para iniciar el patrullaje pedestre de la línea, encontrándose que el fenómeno físico causante de la falla eléctrica y que provocó la operación automática de los interruptores de la Línea 110 kV Aconcagua-Esperanza Circuitos N°1 y N°2 de propiedad de Colbún, fue ocasionada por intervención no autorizada del propietario de un predio particular o terceros relacionados directa o indirectamente al mismo, quienes realizaron una quema de desechos combustibles bajo la Línea 110 kV Arranque San Felipe, de propiedad de Chilquinta Energía S.A. La quema se salió de control, transformándose en un incendio de proporciones, afectando entre las estructuras N°7 y N°8 a los conductores energizados de las fases media e inferior de los Circuitos N°1 y N°2, los que por acción del exceso calor se dilatan y cortan. Se adjunta informe probatorio de fuerza mayor o caso fortuito. Además, se hace presente que Chilquinta está trabajando en las acciones legales en contra de los responsables de estos hechos. No hay comentarios relevantes.

Producto del calor también resulta afectada la Línea de 44 kV Las Vegas-Los Andes, cuyo trazado en el sector es paralelo a la Línea 110 kV Arranque San Felipe. El conductor de la fase inferior del Circuito N°1 es el más dañado, ya que presenta una evidente dilatación. Se realiza evaluación de la condición de la línea y se determina la factibilidad de la toma de carga por el Circuito N°2.

La primera medida adoptada en terreno fue aislar el Circuito N°1 de la Línea 110 kV Arranque San Felipe, de manera de dejar disponible el Circuito N°1 de la Línea 110 kV

Aconcagua-Esperanza para la recuperación de los consumos. Para aislar se procedió con la apertura de puentes en la estructura auxiliar, ubicada a un costado de la estructura N°1.

Luego en el tramo 7-8, se iniciaron los trabajos de reemplazo del conductor Butte dañado, partiendo por el Circuito N°2 para seguir con el Circuito N°1. Está etapa finaliza con la energización y recuperación de los consumos por el Circuito N°2.

La tercera etapa fue el cierre de puentes por el Circuito N°1, con lo cual quedaron normalizados ambos circuitos de la Línea 110 kV Arranque San Felipe.

En cuanto a la Línea de 44 kV Las Vegas-Los Andes, el mismo día en la estructura N°199 se realizó la apertura de puentes por el Circuito N°1, dejando preparado para los trabajos de reemplazo de conductor que se realizaron el domingo 15 de diciembre.

Desde el domingo 15 de diciembre y hasta la fecha se ha realizado un trabajo, en conjunto con la Ilustre Municipalidad de San Felipe, que consiste en el retiro de desechos que el propietario del predio a depositado en las inmediaciones de la línea afectada.

Figura 1: Incendio provocado por intervención no autorizada de terceros, quienes efectúan quema de pastizales y desechos en faja de servidumbre de Línea 110 kV Arranque San Felipe.

Figura 2: Estructura N°8 Línea 110 kV Arranque San Felipe. Se aprecia conductores cortados hacia la estructura N°7 debido al exceso calor generado por el incendio. Detrás de la estructura N°8 se aprecia la Línea 44 kV Las Vegas-Los Andes, la cual también resultó afectada.

Figura 3: Puentes abiertos en estructura auxiliar Línea 110 kV Arranque San Felipe Circuito N°1. Despejada Línea 110 kV Aconcagua-Esperanza Circuito N°1 de propiedad de Colbún.

Figura 4: Trabajos de reemplazo de conductor, tramo 7-8, Línea 110 kV Arranque San Felipe Circuitos N°1 y N°2.

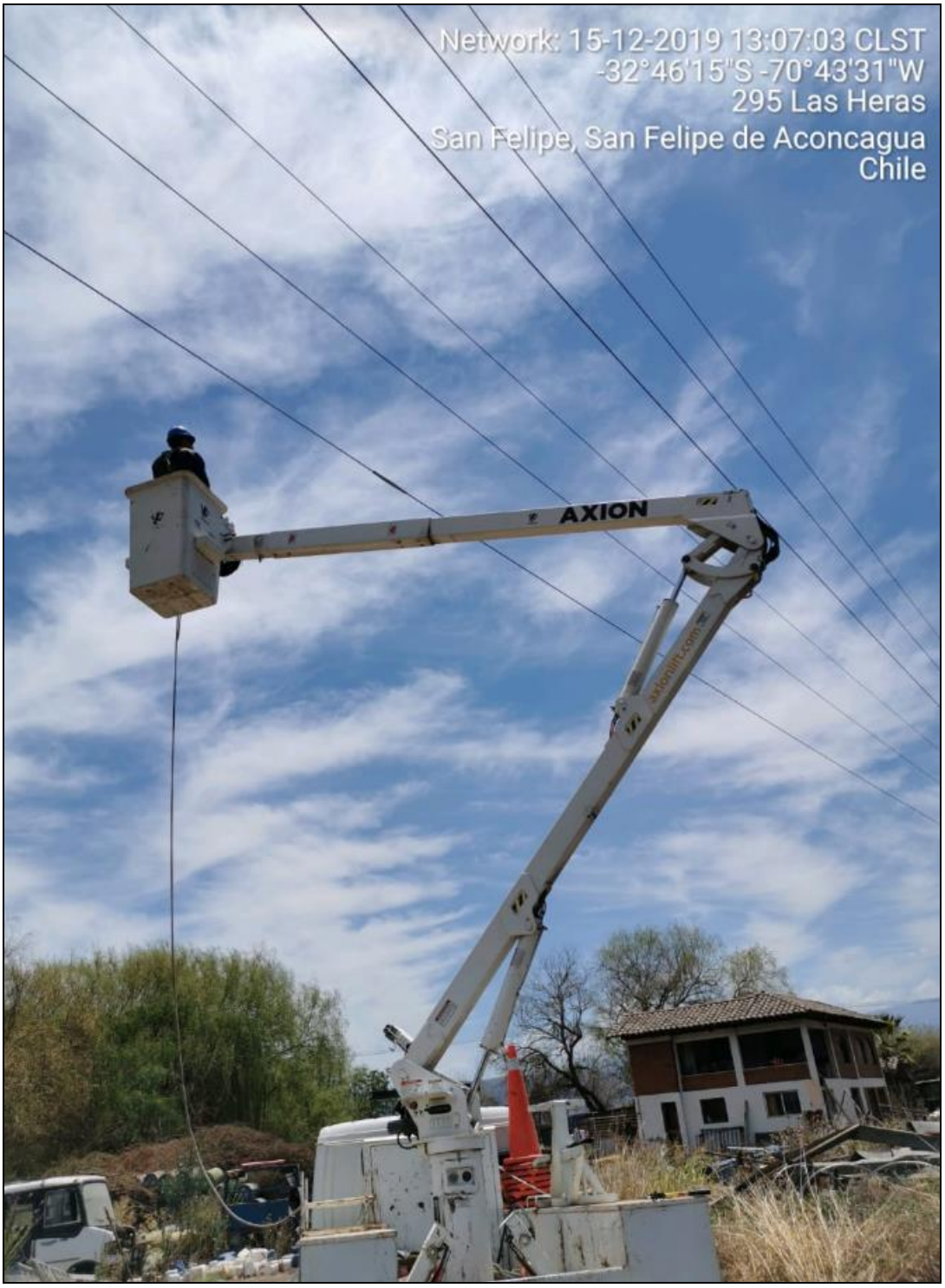


Figura 5: Trabajos de reemplazo de conductor, tramo 196-197, Línea 44 kV Las Vegas-Los Andes Circuito N°1. Trabajos realizados el domingo 15 de diciembre.

Según informó el gobernador de Los Andes, Jorge Salazar, la emergencia se habría originado por la quema no autorizada de basura o pastizal en **Pocuro**, el que se salió de control.

Producto de la situación , la empresa Colbún determinó de manera preventiva cortar el suministro, sin embargo, la rápida propagación de las llamas terminó por incendiar una torre de energía.

De acuerdo a lo detallado por Salazar, son **83 mil los clientes afectados** por

Elaconcagua.cl
@elaconcagua

Corte de luz que afecta a San Felipe y Los Andes se debe a incendio en puente Pocuro, porque Chilquinta por seguridad cortó energía en lineas de alta tensión de Colbún que pasan por el.sector.

13:08 · 14 dic. 19 · Twitter for Android

RADIO ACONCAGUA @aconc... · 34s
Personal de emergencia de Colbún se constituye en Puente Pocuro por incendio que dañó lineas de alimentación de la empresa. Corte de luz en Aconcagua fue adoptado de manera preventiva. Según nos informa **Chilquinta**, aún no pueden determinar la hora de reposicion del suministro

Figura 6: Información en medios de prensa que dan cuenta del incendio y su afectación.

Figura 7: En coordinación con Ilustre Municipalidad de San Felipe y posterior a la normalización de la instalación se ejecuta el retiro del vertedero ilegal desde franja de servidumbre.

Tabla 1: Mantenimiento 12 Meses Línea 110 kV Arranque San Felipe

Ítem	Fecha	Circuito	Tipo	Detalle
1.	Oct-18	Ctos.1 y 2	Mantenimiento Predictivo	Inspección coronográfica.
2.	Oct-18	Ctos.1 y 2	Mantenimiento Predictivo	Inspección termográfica.
3.	May-19	Ctos.1 y 2	Mantenimiento Preventivo	Patrullaje pedestre para inspección técnica de estructuras, conductores y franja de línea.
4.	May-19	Ctos.1 y 2	Mantenimiento Predictivo	Inspección termográfica.
5.	Jun-19	Cto. 1	Mantenimiento Preventivo	Limpieza de aislación.
6.	Jun-19	Cto. 1	Mejoras instalación	Reemplazo de aisladores y ferretería eléctrica e instalación de protección anti pájaro.
7.	Jun-19	Ctos.1 y 2	Mantenimiento Preventivo	Manejo de vegetación.
8.	Ago-19	Ctos.1 y 2	Mantenimiento Predictivo	Inspección coronográfica.
9.	Sep-19	Cto. 2	Mantenimiento Preventivo	Limpieza de aislación.
10.	Nov-19	Ctos.1 y 2	Mantenimiento Preventivo	Medición resistencia de malla de puesta a tierra.

5.2. Información Mantenimiento Subestaciones de Poder.

Sin antecedentes relevantes.

CARABINEROS DE CHILE
2DA. COM. SAN FELIPE
R. CURIMON

P A R T E D E N U N C I A

MINISTERIO PUBLICO
FISCALIA LOCAL SAN FELIPE
16 DIC 2019
RECEPCIÓN

ANTECEDENTES DE LA DENUNCIA

Región : V REGION VALPARAISO
Nombre Fiscalía : FISCALIA LOCAL SAN FELIPE
Institución Policial : CARABINEROS DE CHILE
Nro. del Parte : 00319
Fecha Denuncia : 14/12/2019
Hora Denuncia : 12:10
Unidad Policial : R.CURIMON 2A. SAN FELIPE
Prefectura : 2DA. COM. SAN FELIPE
Func. Confecciona el Parte : DIEGO ESTEBAN ALIAGA ZAMUDIO
Grado : CABO 2DO.
Rut : 19.274.295-1
Func. a Cargo Procedimiento : MARIO GUILLERM AGUILERA BARAHONA
Grado : SUBOF.
Rut : 12.391.720-0

ANTECEDENTES DEL DELITO

Código Delito : 00855 INCENDIO SOLO CON DAÑOS O SIN PELIGRO DE PROPAGACION AR

Fecha del Delito : 14/12/2019
Hora del Delito : 12:00
Lugar de Ocurrencia : PREDIO AGRICOLA
DOMICILIO
Dirección : RUTA 60 CH 31 /
Región : V REGION VALPARAISO
Provincia : PROV. SAN FELIPE DE ACONCAGUA
Comuna : SAN FELIPE
Medios para Comisión del Delito : NO DETERMINADAS
Tipo de Arma : NO HUBO

IDENTIFICACION DENUNCIANTE/VICTIMA — Nro : 0001

Tipo. Doc. Identif. : C. Identidad
Nro. Doc. Identif. : 13183185-4
Ap. Paterno : PEREZ
Ap. Materno : MENESES
Nombres : PATRICIO ALEJANDRO
Fecha Nacimiento : 19/05/1976 Edad : 43
Estudios : MEDIOS
Profesión : CHOFER
Sexo : Masculino
Nacionalidad : CHILENA
Caracter Lesión : SIN LESIONES
Descrip. de la Lesión:
DOMICILIO DENUNCIANTE/VICTIMA
Dirección : RUTA 60 CH 31
Región : V REGION VALPARAISO
Provincia : PROV. SAN FELIPE DE ACONCAGUA
Comuna : SAN FELIPE
Teléfonos : 993087934

DOCUMENTOS ADJUNTOS (REQUERIDOS POR LA LEY)

Tipo Documento	Nro. Documento	Fecha Documento
DEC. VICTIMA	S/N	14/12/2019
DEC. IMPUTADO	S/N	14/12/2019
DEC. TESTIGO	S/N	14/12/2019
DEC. TESTIGO	S/N	14/12/2019

RELACION DE LOS HECHOS
CUADRANTE CUATRO
LUGAR DE LOS HECHOS: PUENTE POCURO, LOCALIDAD DE CURIMON

Doy cuenta a esa Fiscalía Local de San Felipe, que el día de hoy, Sábado 14 de Diciembre del 2019, a las 12:10 Horas, el personal de población a cargo del Suboficial Mario Aguilera Barahona y personal a su cargo, de Servicio de 1er. Patrullaje en el cuadrante cuatro Curimón, recepcionaron un comunicado radial de la Central de comunicaciones Cenco Aconcagua, en el cual los derivaron a la Ruta 60Ch antigua metros antes de llegar al puente Pocuro en Curimón, comuna de San Felipe, a verificar procedimiento de incendio.

Una vez en el lugar personal policial, se percata que la parte trasera del predio ubicado en la Ruta antigua 60CH, kilómetro 31.500, Curimón, comuna de San Felipe, se había iniciado un incendio de proporciones, lo que originó que cables de dos torres de alta tensión y dos de baja tensión que se encuentran en el lugar, cedieran por el calor de las llamas y cayeran al piso, provocando un corte general de energía eléctrica en las comuna de San Felipe, Los Andes y Putaendo, afectando a 82.000 mil usuarios aproximadamente, además con peligro de dañar los cables de la vía pública, motivo por el cual y con la finalidad de salvaguardar la integridad de las personas y dejar trabajar a las instituciones de emergencias, personal policial cortó el tránsito vehicular en tres esquina, monasterio y puente del rey.

Posteriormente el personal policial a cargo del procedimiento entrevista en el lugar al dueño del predio que mantiene su casa adelante en el mismo lugar, PATRICIO ALEJANDRO PEREZ MENESES, 42 años, chileno, casado, medios, chofer, Cédula de Identidad Nro. 13.183.185-4, nacido el 19.05.1976, domiciliado en Ruta antigua 60CH, kilómetro 31.500, Curimón comuna de San Felipe, fono 993087934, el que informa a personal de Carabineros que, su hermano mayor HECTOR CHRISTIAN PEREZ MENESES, 51 años, chileno, casado, superiores, abogado, Cedula de identidad Nro. 10.819.784-6, nacido el 03.10.1969, domiciliado en calle Republica Nro. 135, población Manuel Rodríguez, comuna de San Felipe, fono 972235471, en horas de la mañana concurrió al lugar del incendio con un ciudadano haitiano identificado como CORRIER DIEUBOM, 51 años, casado, superiores, profesor, Cedula de identidad Nro. 25.696.833-9, domiciliado en calle Estadio Nro. 845, población 250 años, San Felipe, al que dejo en el lugar sacando maleza con un rozón y pala, posteriormente alrededor de las 12:00 horas, un vecino del sector llego hasta la casa habitación avisándole que en la parte de atrás de su predio estarían saliendo llamas, saliendo al exterior verificando lo avisado procediendo de inmediato llamar a bomberos.

MATERIAL: pastizal, desechos de construcción, acumulación de neumáticos, cascaras de nueces, maderas, electrodomésticos en desuso, tambores vacíos de combustibles, entre otros.

EQUIPOS DE EMERGENCIA, Concurrieron todas las compañías de Bomberos de San Felipe, Santa María, Putaendo, Calle Larga, Curimón y Panquehue, todas a cargo del Comandante Juan Carlos Herrera Lillo, además la concurrencia de un helicóptero de Conaf, personal de la empresa chilquinta área línea de mantenimiento de líneas de transmisión, a cargo del Ingeniero Juan Guzmán Olguin, Cedula de Identidad Nro. 13.751.268-8, fono 998217762.

DAÑOS: cables de dos torres de alta tensión y dos de baja tensión que se encuentran en el lugar.

AVALUO: Serán evaluados ante ese tribunal.

Vallejos informó del hecho al Fiscal de turno Andres Gallardo Cerda, quien instruyó la concurrencia de personal Labocar en su especialidad, S.I.P. 2da. Comisaria de San Felipe para tomar declaraciones a la totalidad de los que se encontraban en el lugar y en carácter de imputado al ciudadano haitiano y Depto. Incendio de bombero realizar informe correspondiente.

LABOCAR: Concurrió a cargo del Sgto. 1ro. Cesar Medina Medina, realizo trabajo de su especialidad.

S.I.P.: Concurrió a cargo del Suboficial Luis Herazo Carrasco, tomando declaraciones correspondientes, las que se adjuntan al presente parte policial.

DEPTO. INCENDIO DE BOMBERO: Concurrió a cargo del Inspector del Depto., Genaro Pulgar León, Cedula de Identidad Nro. 16.702,944-2

CITACIÉN: Los afectados quedan en espera de citación por pare de esa Fiscalía Local.

DIEGO E. ALIAGA ZAMUDIO
Cabo 2do. de Carabineros
SUBOFICIAL DE GUARDIA

.....Bo

FERNANDO P. ESPINOZA TAPIA
Suboficial Mayor de Carabineros
JEFE DE RETEN

CARABINEROS DE CHILE
2ª Comisaría San Felipe
RETEN
CUMMON

INFORME DE FALLA 14/12/2019

EQUIPO AFECTADO:	**CIRCUITO N°1 DE LA LT 2x110kV ESPERANZA – ACONCAGUA**
TITULO DE LA FALLA:	**FALLA EN EL CIRCUITO N°1 DE LA LT 2x110kV ESPERANZA – ACONCAGUA**
FECHA Y HORA DE INICIO DE LA FALLA:	**Sábado , 14 de diciembre de 2019 a las 12:55 hrs**
COMUNA:	**5701**
CODIGO DE FALLA:	**1117**
FENOMENO FISICO:	**INC1**
ELEMENTO:	**TX2**
FENOMENO ELÉCTRICO:	**DI21N**
MODO:	**13**
REITERACION:	**No**

1. CONDICIONES DE OPERACIÓN DE LAS INSTALACIONES PREVIAS A LA PERTURBACIÓN

Momentos previos a la falla, el circuito N°1 de la LT 2x110kV Esperanza – Aconcagua se encontraba en servicio con el extremo en S/E Esperanza abierto, y con una transferencia de aproximdamente 37 MW alimentando las SSEE San Felipe y San Rafael desde S/E Los Maquis. Por su parte, la S/E Chagres se encontraba alimentada radialmente desde la S/E Las Vegas.

La condición de operacional de los interruptores del circuito N°1 de la LT 2x110kV Esperanza – Aconcagua era la siguiente:

- 52H1 S/E Esperanza abierto
- 52L1 S/E Chagres abierto
- 52H3 S/E Los Maquis cerrado
- 52H3 S/E Aconcagua cerrado

En el momento de la falla no se realizaban trabajos en las instalaciones afectadas, pero se presentaba un incendio en la cercania de la línea

2. DESCRIPCIÓN DETALLADA DEL ORIGEN DE LA FALLA.

En la fecha y hora antes señalada se produce la desconexión intempestiva del circuito N°1 de la LT 2x110kV Aconcagua – Esperanza por operación de protección de distancia (21N) en el extremo S/E Aconcagua que detectó falla monofásica en la fase C, dentro del alcance de zona 2, el relé envió orden de apertura al interruptor 52H3 S/E Aconcagua. Y en el extremo de S/E Los Maquis se registró operación de la función de sobrecorriente residual (67N) que detectó falla monofásica en la fase C, enviando orden de apertura al interruptor y 52H3 SE Los Maquis, completando el despeje de la falla.

Según los antecedentes disponibles, la causa de la desconexión se relaciona con un incendio presente en franjas de seguriad de líneas de terceros.

3. SECUENCIA DE EVENTOS DURANTE LA EVOLUCIÓN DE LA PERTURBACIÓN.

ANTECEDENTES DE INTERRUPCIÓN					
ITEM	**FECHA**	**HORA**	**LUGAR**	**INTERRUPTOR / EQUIPO**	**PROTECCIONES OPERADAS**
01	14.12.2019	12:55:15	S/E Aconcagua	52H3	Operación de protección de distancia (21N)
02	14.12.2019	12:55:15	S/E Los Maquis	52H3	Operación de protección sobrecorriente residual (67N)

4. SECUENCIAS DE EVENTOS Y PRINCIPALES MANIOBRAS DE NORMALIZACIÓN

ANTECEDENTES DE NORMALIZACIÓN					
ITEM	**FECHA**	**HORA**	**LUGAR**	**INTERRUPTOR / EQUIPO**	**MANIOBRAS EJECUTADAS**
01	14.12.2019	16:44:15	S/E Los Maquis	52H3	Cierre manual del interruptor
02	14.12.2019	16:44:45	S/E Aconcagua	52H3	Cierre manual del interruptor

5. IMPACTO EN EL SEN Y/O CLIENTES

De acuerdo con el informe de novedades del Coordinador, producto de la desconexión del circuito N°1 de la LT 2x110kV Aconcagua – Esperanza se registró la pérdida de consumos por 38 MW asociados a las SS/EE San Rafael y San Felipe.

6. OTROS HECHOS RELEVANTES PARA LA OPERACIÓN

No se registran otros hechos relevantes para la operación

7. CRITERIOS DE AJUSTES Y AJUSTES DE LAS PROTECCIONES OPERADAS EN LA FALLA

El circuito N°1 de la LT 2x110kV Aconcagua – Esperanza cuenta con relés marca GE modelo D60 en sus tres extremos: S/E Aconcagua, S/E Los Maquis y S/E Esperanza. Cada uno de ellos esta configurado con módulos de protección de distancia (21/21N) como protección principal y protección de sobrecorriente direccional residual (67N) como protección de respaldo. Además, cuenta con un esquema de teleprotección de tres puntas Hybrid POTT.

8. ANÁLISIS DEL COMPORTAMIENTO DE LAS PROTECCIONES OPERADAS EN LA FALLA

En el extremo S/E Aconcagua del circuito N°1 de la LT 2x110kV Aconcagua – Esperanza, el relé GE D60 registró la presencia de una falla monofásica a tierra en la fase C, desencadenando el arranque de la función de distancia (21N) por detección de una falla dentro del alcance de la segunda zona, la cual envia orden de apertura al interruptor 52H3 de S/E Aconcagua de acuerdo con sus ajustes, luego de aproximadamente 400ms.

En el extremo S/E Los Maquis del circuito N°1 de la LT 2x110kV Aconcagua – Esperanza, el relé GE D60 registró la presencia de una falla monofásica a tierra en la fase C, desencadenando el arranque de la función sobrecorriente residual direccional temporizada (67N), la cual envia orden de apertura al interruptor 52H3 de S/E Los Maquis, el cual registra apertura luego de 635ms de iniciada la falla.

9. DIAGRAMA UNILINEAL SIMPLIFICADO DE LAS INSTALACIONES AFECTADAS POR LA FALLA

El diagrama unilineal simplificado de las instalaciones afectadas por la falla se adjunta en el Anexo N°1.

10. REGISTROS OSCILOGRÁFICOS DE LAS PROTECCIONES OPERADAS EN LA FALLA

Los registros oscilográficos y de eventos disponibles se presentan en el Anexo N°3 de este informe.

11. ACCIONES CORRECTIVAS LARGO PLAZO

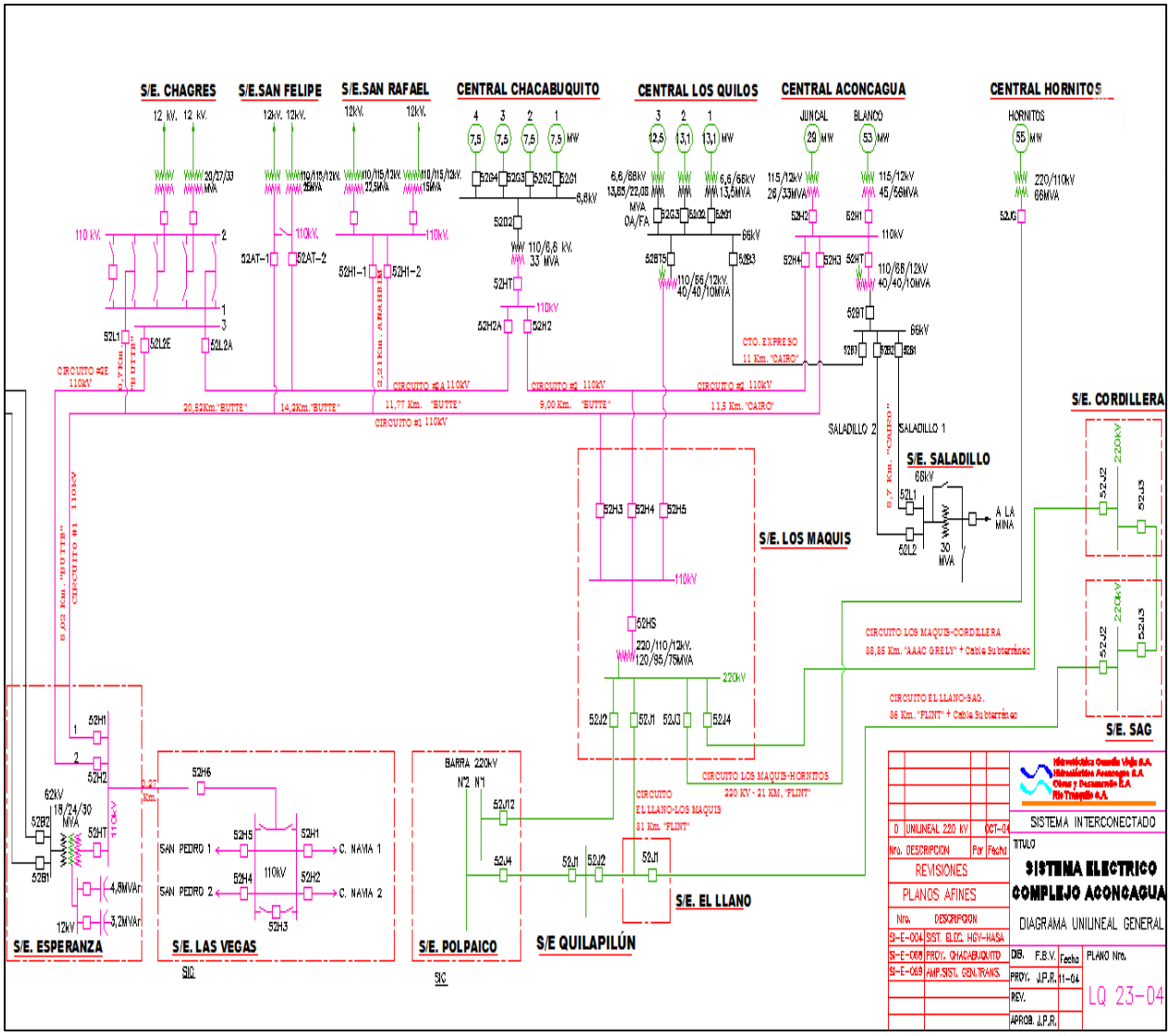
No se contemplan medidas correctivas de largo plazo.

12. ACCIONES CORRECTIVAS CORTO PLAZO

No se contemplan medidas correctivas de corto plazo.

ANEXOS

ANEXO N°1
DIAGRAMAS UNILINEALES


S/E. CHAGRES
S/E.SAN FELIPE
S/E.SAN RAFAEL
CENTRAL CHACABUQUITO
CENTRAL LOS QUILOS
CENTRAL ACONCAGUA
CENTRAL HORNITOS
S/E. CORDILLERA
S/E. SALADILLO
S/E. LOS MAQUIS
S/E. SAG
S/E. EL LLANO
S/E QUILAPILÚN
S/E. POLPAICO
S/E. LAS VEGAS
S/E. ESPERANZA
CIRCUITO LOS MAQUIS-CORDILLERA
CIRCUITO EL LLANO-SAG.
CIRCUITO LOS MAQUIS-HORNITOS
SISTEMA INTERCONECTADO
SISTEMA ELECTRICO
COMPLEJO ACONCAGUA
DIAGRAMA UNILINEAL GENERAL
LQ 23-04

ANEXO N°2
AJUSTES DE PROTECCIONES

S/E ACONCAGUA
PAÑO H3
RELÉ GE D60

GROUND DISTANCE [GROUP 1]	
GROUND DISTANCE Z1: Function	Enabled
GROUND DISTANCE Z1: Direction	Forward
GROUND DISTANCE Z1: Shape	Quad
GROUND DISTANCE Z1: Z0/Z1 Mag	5.61
GROUND DISTANCE Z1: Z0/Z1 Ang	9 deg
GROUND DISTANCE Z1: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z1: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z1: Reach	0.40 ohms
GROUND DISTANCE Z1: RCA	68 deg
GROUND DISTANCE Z1: Rev Reach	0.02 ohms
GROUND DISTANCE Z1: Rev Reach RCA	90 deg
GROUND DISTANCE Z1: POL Current	Zero-seq
GROUND DISTANCE Z1: Non-Homogen Ang	-3.0 deg
GROUND DISTANCE Z1: Comp Limit	90 deg
GROUND DISTANCE Z1: DIR RCA	68 deg
GROUND DISTANCE Z1: DIR Comp Limit	90 deg
GROUND DISTANCE Z1: Quad Right Blinder	1.11 ohms
GROUND DISTANCE Z1: Quad Right Blinder RCA	68 deg
GROUND DISTANCE Z1: Quad Left Blinder	1.11 ohms
GROUND DISTANCE Z1: Quad Left Blinder RCA	68 deg
GROUND DISTANCE Z1: Supervision	0.200 pu
GROUND DISTANCE Z1: Volt Level	0.000 pu
GROUND DISTANCE Z1: Delay	0.000 s
GROUND DISTANCE Z1: Block	SRC1 VT FUSE FAIL OP
GROUND DISTANCE Z1: Target	Latched
GROUND DISTANCE Z1: Events	Enabled
GROUND DISTANCE Z2: Function	Enabled
GROUND DISTANCE Z2: Direction	Forward
GROUND DISTANCE Z2: Shape	Quad
GROUND DISTANCE Z2: Z0/Z1 Mag	5.16
GROUND DISTANCE Z2: Z0/Z1 Ang	13 deg
GROUND DISTANCE Z2: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z2: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z2: Reach	15.21 ohms
GROUND DISTANCE Z2: RCA	68 deg
GROUND DISTANCE Z2: Rev Reach	0.02 ohms
GROUND DISTANCE Z2: Rev Reach RCA	90 deg
GROUND DISTANCE Z2: POL Current	Zero-seq
GROUND DISTANCE Z2: Non-Homogen Ang	-3.0 deg
GROUND DISTANCE Z2: Comp Limit	90 deg
GROUND DISTANCE Z2: DIR RCA	68 deg
GROUND DISTANCE Z2: DIR Comp Limit	90 deg
GROUND DISTANCE Z2: Quad Right Blinder	9.30 ohms
GROUND DISTANCE Z2: Quad Right Blinder RCA	68 deg
GROUND DISTANCE Z2: Quad Left Blinder	9.30 ohms
GROUND DISTANCE Z2: Quad Left Blinder RCA	68 deg
GROUND DISTANCE Z2: Supervision	0.200 pu
GROUND DISTANCE Z2: Volt Level	0.000 pu
GROUND DISTANCE Z2: Delay	0.700 s
GROUND DISTANCE Z2: Block	SRC1 VT FUSE FAIL OP
GROUND DISTANCE Z2: Target	Latched
GROUND DISTANCE Z2: Events	Enabled

1P POTT SCHEME (continued from last page)	
Rx Pickup Delay	0.000 s
Trans Block Pickup Delay	0.020 s
Trans Block Reset Delay	0.090 s
Echo Duration	0.100 s
Echo Lockout	0.250 s
Line End Open Pickup Delay	0.050 s
Seal-In Delay	0.000 s
Gnd Dir OC Fwd	OFF
Comm Bits	1
Rx1	OFF
Rx2	OFF
Rx3	OFF
Rx4	OFF
Target	Self-reset
Event	Enabled

1P HYBRID POTT SCHEME	
Function	Enabled
Block	OFF
Permissive Echo	Disabled
Echo Condition	OFF
Weak Infeed	Disabled
W/I Condition	OFF
Rx Pickup Delay	0.000 s
Trans Block Pickup Delay	0.020 s
Trans Block Reset Delay	0.090 s
Echo Duration	0.100 s
Echo Lockout	0.250 s
Seal-In Delay	0.000 s
Gnd Dir OC Fwd	OFF
Gnd Dir OC Rev	OFF
No of Comm Bits	2
Rx1	FALLA MENOR On (VO3)
Rx2	OFF
Rx3	OFF
Rx4	OFF
Target	Self-reset
Event	Enabled

S/E LOS MAQUIS
PAÑO H3
RELÉ GE D60

NEUTRAL CURRENT

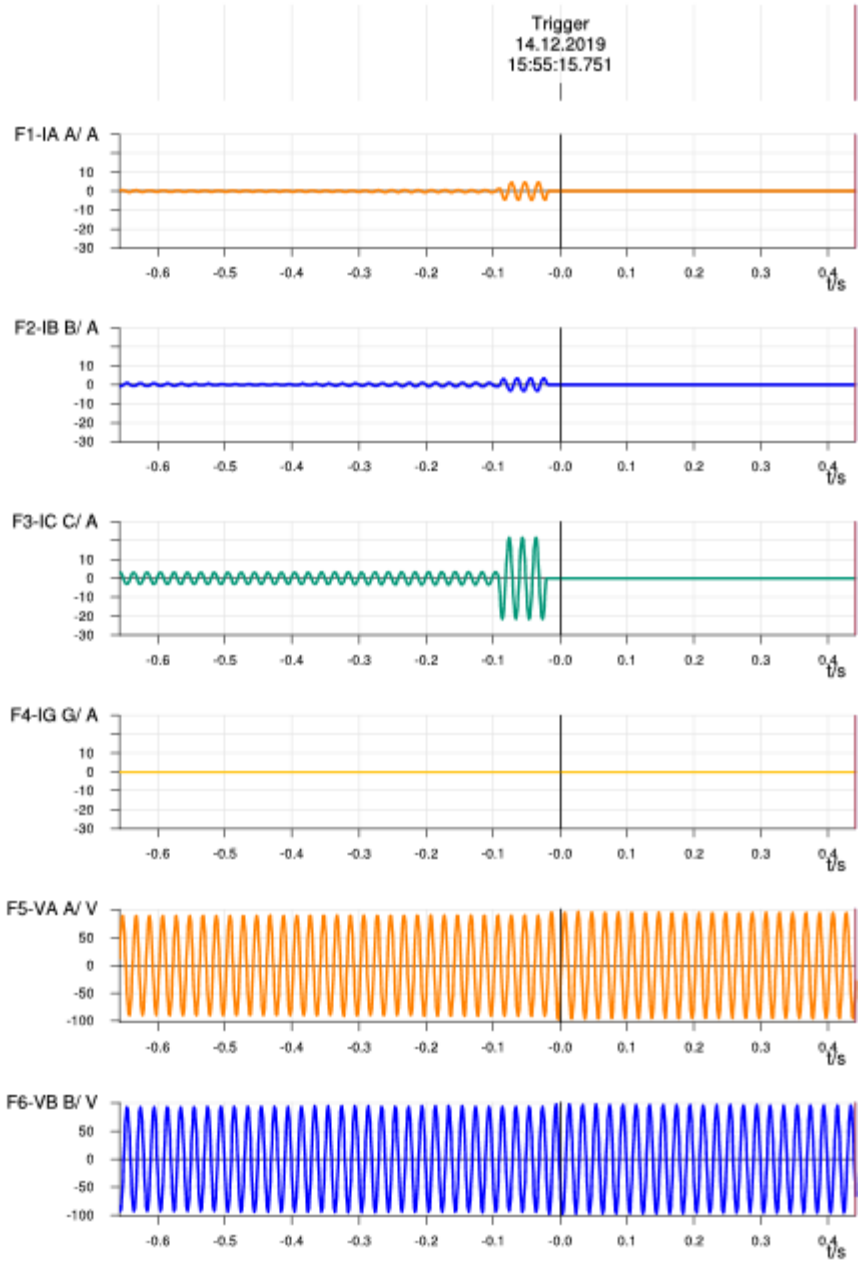
NEUTRAL TOC [GROUP 1]	
NEUTRAL TOC1: Function	Enabled
NEUTRAL TOC1: Source	Barra (SRC 1)
NEUTRAL TOC [GROUP 1] (continued from last page)	
NEUTRAL TOC1: Input	Phasor
NEUTRAL TOC1: Pickup	0.432 pu
NEUTRAL TOC1: Curve	IEC Curve A
NEUTRAL TOC1: TD Multiplier	0.23
NEUTRAL TOC1: Reset	Instantaneous
NEUTRAL TOC1: Block	NTRL DIR OC1 REV
NEUTRAL TOC1: Target	Latched
NEUTRAL TOC1: Events	Enabled
NEUTRAL TOC2: Function	Enabled
NEUTRAL TOC2: Source	Barra (SRC 1)
NEUTRAL TOC2: Input	Phasor
NEUTRAL TOC2: Pickup	7.812 pu
NEUTRAL TOC2: Curve	Definite Time
NEUTRAL TOC2: TD Multiplier	0.30
NEUTRAL TOC2: Reset	Instantaneous
NEUTRAL TOC2: Block	NTRL DIR OC1 REV
NEUTRAL TOC2: Target	Latched
NEUTRAL TOC2: Events	Enabled

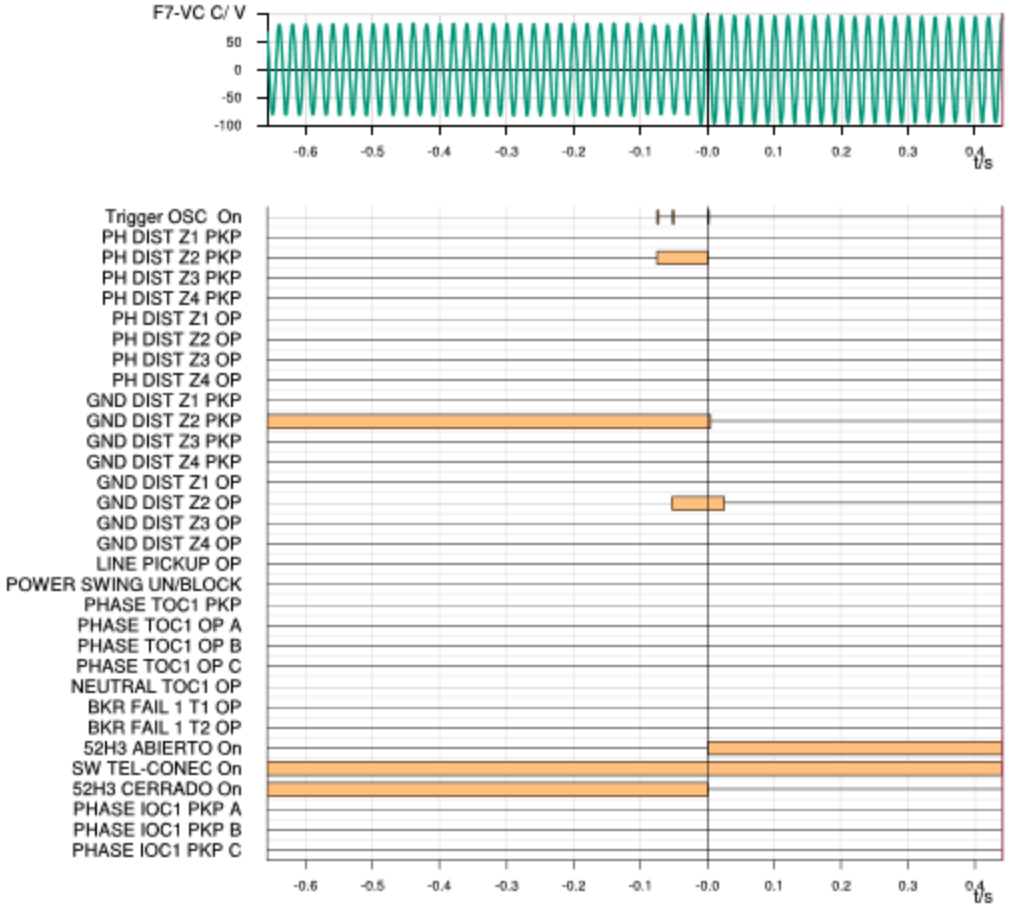
NEUTRAL IOC [GROUP 1]	
NEUTRAL IOC1: Function	Enabled
NEUTRAL IOC1: Source	Barra (SRC 1)
NEUTRAL IOC1: Pickup	0.245 pu
NEUTRAL IOC1: Delay	0.00 s
NEUTRAL IOC1: Reset Delay	0.00 s
NEUTRAL IOC1: Block	VCA_OK On (VO8)
NEUTRAL IOC1: Target	Latched
NEUTRAL IOC1: Events	Enabled

NEUTRAL DIRECTIONAL OC [GROUP 1]	
NEUTRAL DIR OC1: Function	Enabled
NEUTRAL DIR OC1: Source	Barra (SRC 1)
NEUTRAL DIR OC1: Polarizing	Voltage
NEUTRAL DIR OC1: Polarizing Volt	Calculated V0
NEUTRAL DIR OC1: Op Current	Calculated 3I0
NEUTRAL DIR OC1: POS SEQ Restraint	0.063
NEUTRAL DIR OC1: Offset	0.00 ohms
NEUTRAL DIR OC1: Forward ECA	75 ° Lag
NEUTRAL DIR OC1: Forward Limit Angle	90 deg
NEUTRAL DIR OC1: Forward Pickup	0.050 pu
NEUTRAL DIR OC1: Reverse Limit Angle	90 deg
NEUTRAL DIR OC1: Reverse Pickup	0.050 pu
NEUTRAL DIR OC1: Block	OFF
NEUTRAL DIR OC1: Target	Self-reset
NEUTRAL DIR OC1: Events	Enabled

ANEXO N°3
REGISTROS OSCILOGRAFICOS Y DE EVENTOS

S/E ACONCAGUA
PAÑO H3
RELÉ GE D60



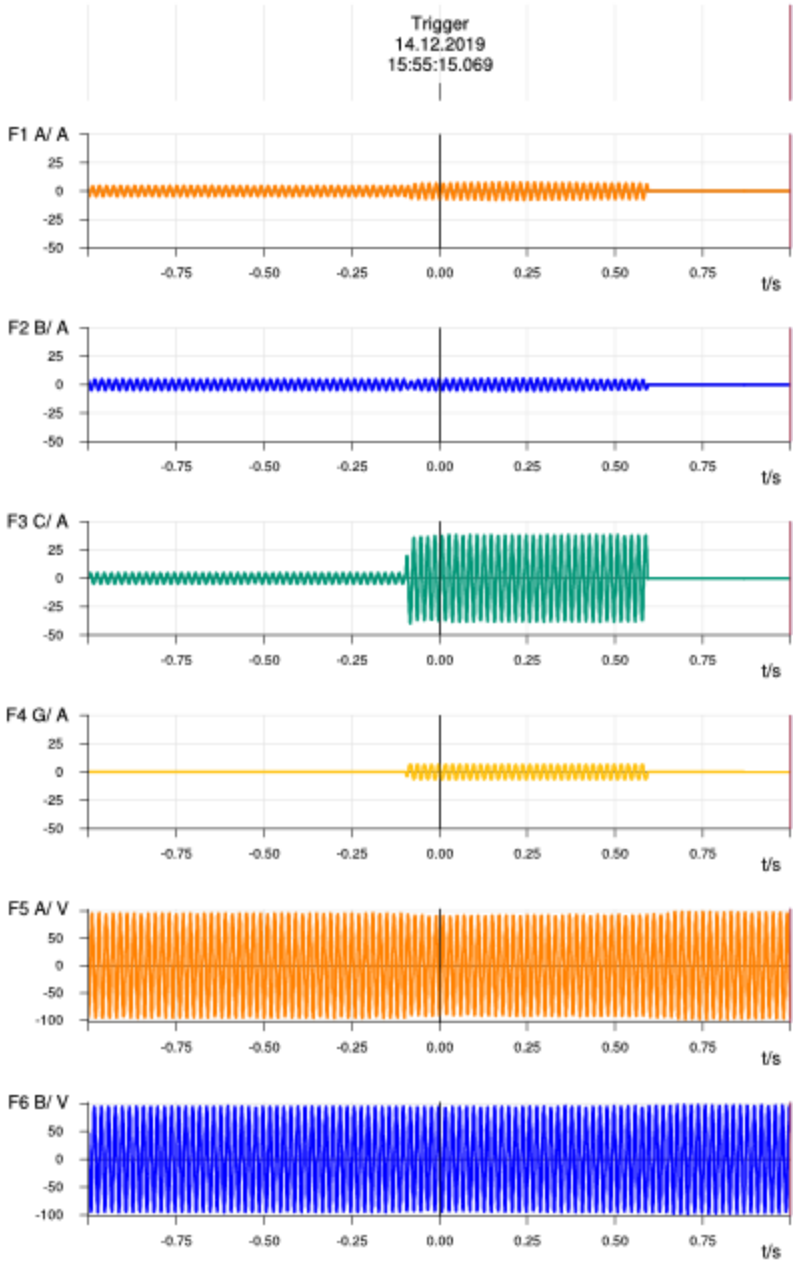

F7-VC C/ V
50
0
-50
-100
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
-0.0
0.1
0.2
0.3
0.4
t/s
Trigger OSC On
PH DIST Z1 PKP
PH DIST Z2 PKP
PH DIST Z3 PKP
PH DIST Z4 PKP
PH DIST Z1 OP
PH DIST Z2 OP
PH DIST Z3 OP
PH DIST Z4 OP
GND DIST Z1 PKP
GND DIST Z2 PKP
GND DIST Z3 PKP
GND DIST Z4 PKP
GND DIST Z1 OP
GND DIST Z2 OP
GND DIST Z3 OP
GND DIST Z4 OP
LINE PICKUP OP
POWER SWING UN/BLOCK
PHASE TOC1 PKP
PHASE TOC1 OP A
PHASE TOC1 OP B
PHASE TOC1 OP C
NEUTRAL TOC1 OP
BKR FAIL 1 T1 OP
BKR FAIL 1 T2 OP
52H3 ABIERTO On
SW TEL-CONEC On
52H3 CERRADO On
PHASE IOC1 PKP A
PHASE IOC1 PKP B
PHASE IOC1 PKP C
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
-0.0
0.1
0.2
0.3
0.4
t/s

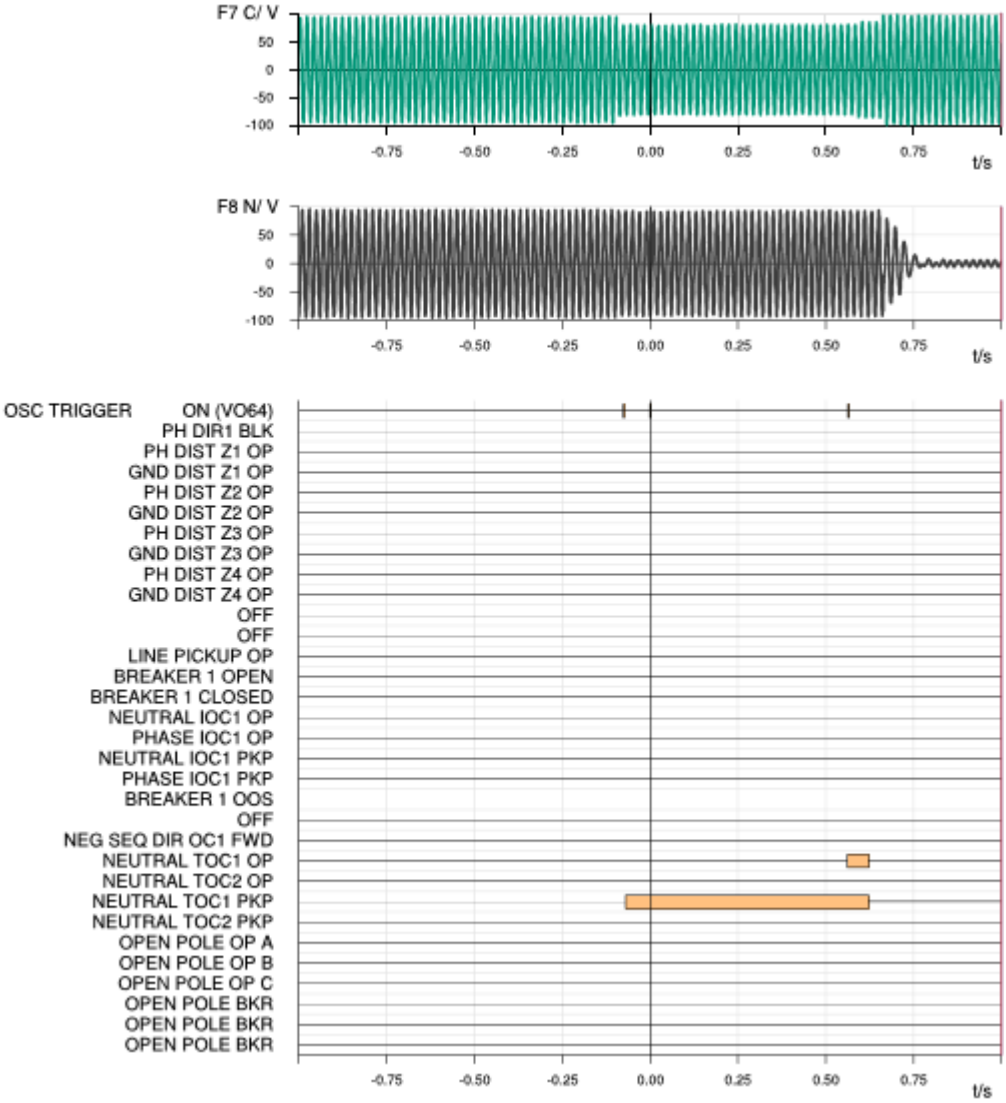
FORMAT	EVENT	Date/Time	Cause
SHORT_EVENT	381	Dec 14 2019 15:52:30.260343	NEUTRAL TOC1 PKP
SHORT_EVENT	382	Dec 14 2019 15:52:30.260343	Trigger OSC On (VO10)
SHORT_EVENT	383	Dec 14 2019 15:52:30.260343	OSCILLOGRAPHY TRIG'D
SHORT_EVENT	384	Dec 14 2019 15:52:30.262846	Trigger OSC Off (VO10)
SHORT_EVENT	385	Dec 14 2019 15:52:30.375371	GND DIST Z2 PKP C
SHORT_EVENT	386	Dec 14 2019 15:52:30.375371	HYBRID POTT TX1
SHORT_EVENT	387	Dec 14 2019 15:52:30.375371	TX 85A On (VO7)
SHORT_EVENT	388	Dec 14 2019 15:52:30.375371	Trigger OSC On (VO10)
SHORT_EVENT	389	Dec 14 2019 15:52:30.375371	OSCILLOGRAPHY TRIG'D
SHORT_EVENT	390	Dec 14 2019 15:52:30.375371	TX 85A ESP On (CO19)
SHORT_EVENT	391	Dec 14 2019 15:52:30.375371	TX 85A MAQ On (CO20)
SHORT_EVENT	392	Dec 14 2019 15:52:30.377874	Trigger OSC Off (VO10)
SHORT_EVENT	393	Dec 14 2019 15:52:30.513067	GND DIST Z2 DPO C
SHORT_EVENT	394	Dec 14 2019 15:52:30.513067	TX 85A Off (VO7)
SHORT_EVENT	395	Dec 14 2019 15:52:30.513067	TX 85A ESP Off (CO19)
SHORT_EVENT	396	Dec 14 2019 15:52:30.513067	TX 85A MAQ Off (CO20)
SHORT_EVENT	397	Dec 14 2019 15:52:30.570672	GND DIST Z2 PKP C
SHORT_EVENT	398	Dec 14 2019 15:52:30.570672	HYBRID POTT TX1
SHORT_EVENT	399	Dec 14 2019 15:52:30.570672	TX 85A On (VO7)
SHORT_EVENT	400	Dec 14 2019 15:52:30.570672	Trigger OSC On (VO10)
SHORT_EVENT	401	Dec 14 2019 15:52:30.570672	OSCILLOGRAPHY TRIG'D
SHORT_EVENT	402	Dec 14 2019 15:52:30.570672	TX 85A ESP On (CO19)
SHORT_EVENT	403	Dec 14 2019 15:52:30.570672	TX 85A MAQ On (CO20)
SHORT_EVENT	404	Dec 14 2019 15:52:30.573176	Trigger OSC Off (VO10)
SHORT_EVENT	405	Dec 14 2019 15:52:30.700803	NTRL DIR OC1 FWD
SHORT_EVENT	406	Dec 14 2019 15:52:30.700803	GND DIST Z2 DPO C
SHORT_EVENT	407	Dec 14 2019 15:52:30.703304	TX 85A Off (VO7)
SHORT_EVENT	408	Dec 14 2019 15:52:30.703304	TX 85A ESP Off (CO19)
SHORT_EVENT	409	Dec 14 2019 15:52:30.703304	TX 85A MAQ Off (CO20)
SHORT_EVENT	410	Dec 14 2019 15:52:30.710806	NEUTRAL TOC1 DPO
SHORT_EVENT	411	Dec 14 2019 15:55:14.998396	GND DIST Z2 PKP C
SHORT_EVENT	412	Dec 14 2019 15:55:14.998396	NEUTRAL TOC1 PKP
SHORT_EVENT	413	Dec 14 2019 15:55:14.998396	HYBRID POTT TX1
SHORT_EVENT	414	Dec 14 2019 15:55:14.998396	TX 85A On (VO7)
SHORT_EVENT	415	Dec 14 2019 15:55:14.998396	Trigger OSC On (VO10)
SHORT_EVENT	416	Dec 14 2019 15:55:14.998396	OSCILLOGRAPHY TRIG'D
SHORT_EVENT	417	Dec 14 2019 15:55:14.998396	TX 85A ESP On (CO19)
SHORT_EVENT	418	Dec 14 2019 15:55:14.998396	TX 85A MAQ On (CO20)

SHORT_EVENT	419	Dec 14 2019 15:55:15.000911	NTRL DIR OC1 FWD
SHORT_EVENT	420	Dec 14 2019 15:55:15.000911	Trigger OSC Off (VO10)
SHORT_EVENT	421	Dec 14 2019 15:55:15.004671	POTT RX MAQ On (CI9)
SHORT_EVENT	422	Dec 14 2019 15:55:15.673690	POWER SWING MIDDLE
SHORT_EVENT	423	Dec 14 2019 15:55:15.673690	POWER SWING OUTER
SHORT_EVENT	424	Dec 14 2019 15:55:15.676192	PH DIST Z2 PKP BC
SHORT_EVENT	425	Dec 14 2019 15:55:15.676192	PH DIST Z2 PKP CA
SHORT_EVENT	426	Dec 14 2019 15:55:15.676192	Trigger OSC On (VO10)
SHORT_EVENT	427	Dec 14 2019 15:55:15.676192	OSCILLOGRAPHY TRIG'D
SHORT_EVENT	428	Dec 14 2019 15:55:15.678695	POWER SWING INNER
SHORT_EVENT	429	Dec 14 2019 15:55:15.678695	Trigger OSC Off (VO10)
SHORT_EVENT	430	Dec 14 2019 15:55:15.698712	GND DIST Z2 OP C
SHORT_EVENT	431	Dec 14 2019 15:55:15.698712	TRIPBUS 1 PKP
SHORT_EVENT	432	Dec 14 2019 15:55:15.698712	TRIPBUS 1 OP
SHORT_EVENT	433	Dec 14 2019 15:55:15.698712	Trigger OSC On (VO10)
SHORT_EVENT	434	Dec 14 2019 15:55:15.698712	OSCILLOGRAPHY TRIG'D
SHORT_EVENT	435	Dec 14 2019 15:55:15.698712	Trip Bob-2 On (CO4)
SHORT_EVENT	436	Dec 14 2019 15:55:15.698712	Alarma21-21N On (CO18)
SHORT_EVENT	437	Dec 14 2019 15:55:15.701214	Trigger OSC Off (VO10)
SHORT_EVENT	438	Dec 14 2019 15:55:15.746261	PH DIST Z2 DPO CA
SHORT_EVENT	439	Dec 14 2019 15:55:15.748803	52H3 ABIERTO On (CI1)
SHORT_EVENT	440	Dec 14 2019 15:55:15.751266	PH DIST Z2 DPO BC
SHORT_EVENT	441	Dec 14 2019 15:55:15.751266	52H3 CERRADO Off (VO4)
SHORT_EVENT	442	Dec 14 2019 15:55:15.751266	ECO On (VO6)
SHORT_EVENT	443	Dec 14 2019 15:55:15.751266	Trigger OSC On (VO10)
SHORT_EVENT	444	Dec 14 2019 15:55:15.751266	OSCILLOGRAPHY TRIG'D
SHORT_EVENT	445	Dec 14 2019 15:55:15.753770	Trigger OSC Off (VO10)
SHORT_EVENT	446	Dec 14 2019 15:55:15.756273	GND DIST Z2 DPO C
SHORT_EVENT	447	Dec 14 2019 15:55:15.758776	NEUTRAL TOC1 DPO
SHORT_EVENT	448	Dec 14 2019 15:55:15.776296	Trip Bob-2 Off (CO4)
SHORT_EVENT	449	Dec 14 2019 15:55:15.776296	Alarma21-21N Off (CO18)
SHORT_EVENT	450	Dec 14 2019 15:55:15.819835	POTT RX MAQ Off (CI9)
SHORT_EVENT	451	Dec 14 2019 15:55:15.823847	ECO Off (VO6)

SHORT_EVENT	452	Dec 14 2019 15:55:15.823847	TX 85A Off (VO7)
SHORT_EVENT	453	Dec 14 2019 15:55:15.823847	TX 85A ESP Off (CO19)
SHORT_EVENT	454	Dec 14 2019 15:55:15.823847	TX 85A MAQ Off (CO20)
SHORT_EVENT	455	Dec 14 2019 17:23:09.427158	SW TEL-CONEC Off (CI2)
SHORT_EVENT	456	Dec 14 2019 19:44:45.764407	52H3 ABIERTO Off (CI1)
SHORT_EVENT	457	Dec 14 2019 19:44:45.767589	52H3 CERRADO On (VO4)
SHORT_EVENT	458	Dec 14 2019 19:44:45.767589	Trigger OSC On (VO10)
SHORT_EVENT	459	Dec 14 2019 19:44:45.767589	OSCILLOGRAPHY TRIG'D
SHORT_EVENT	460	Dec 14 2019 19:44:45.770085	Trigger OSC Off (VO10)
SHORT_EVENT	461	Dec 14 2019 19:45:18.451302	SW TEL-CONEC On (CI2)
SHORT_EVENT	462	Dec 14 2019 20:51:32.127219	RESET OP(PUSHBUTTON)

S/E LOS MAQUIS
PAÑO H3
RELÉ GE D60




F7 C/ V
50
0
-50
-100
-0.75
-0.50
-0.25
0.00
0.25
0.50
0.75
t/s
F8 N/ V
50
0
-50
-100
-0.75
-0.50
-0.25
0.00
0.25
0.50
0.75
t/s
OSC TRIGGER
ON (VO64)
PH DIR1 BLK
PH DIST Z1 OP
GND DIST Z1 OP
PH DIST Z2 OP
GND DIST Z2 OP
PH DIST Z3 OP
GND DIST Z3 OP
PH DIST Z4 OP
GND DIST Z4 OP
OFF
OFF
LINE PICKUP OP
BREAKER 1 OPEN
BREAKER 1 CLOSED
NEUTRAL IOC1 OP
PHASE IOC1 OP
NEUTRAL IOC1 PKP
PHASE IOC1 PKP
BREAKER 1 OOS
OFF
NEG SEQ DIR OC1 FWD
NEUTRAL TOC1 OP
NEUTRAL TOC2 OP
NEUTRAL TOC1 PKP
NEUTRAL TOC2 PKP
OPEN POLE OP A
OPEN POLE OP B
OPEN POLE OP C
OPEN POLE BKR
OPEN POLE BKR
OPEN POLE BKR
-0.75
-0.50
-0.25
0.00
0.25
0.50
0.75
t/s

Event Number	Date/Time	Cause	Data
5731	Dec 14 2019 15:55:15.673816	52H3 Abierto On (CI2)	
5730	Dec 14 2019 15:55:15.648814	52H3 cerrado Off (CI3)	
5729	Dec 14 2019 15:55:15.634038	Osc Trigger Off (VO64)	
5728	Dec 14 2019 15:55:15.631603	OSCILLOGRAPHY TRIG'D	
5727	Dec 14 2019 15:55:15.631603	Osc Trigger On (VO64)	
5726	Dec 14 2019 15:55:15.631603	FAULT RPT TRIG	
5725	Dec 14 2019 15:55:15.629040	TRIP BOB2 Closed (CO19)	
5724	Dec 14 2019 15:55:15.629040	TRIP BOB1 Closed (CO16)	
5723	Dec 14 2019 15:55:15.629040	TRIPBUS 1 OP	
5722	Dec 14 2019 15:55:15.629040	TRIPBUS 1 PKP	
5721	Dec 14 2019 15:55:15.629040	NEUTRAL TOC1 OP	
5720	Dec 14 2019 15:55:15.599036	68 T/P fail Off (VO2)	
5719	Dec 14 2019 15:55:15.071264	Osc Trigger Off (VO64)	
5718	Dec 14 2019 15:55:15.068698	OSCILLOGRAPHY TRIG'D	
5717	Dec 14 2019 15:55:15.068698	Osc Trigger On (VO64)	
5716	Dec 14 2019 15:55:15.068698	68 T/P fail On (VO2)	
5715	Dec 14 2019 15:55:15.068698	POWER SWING UN/BLOCK	
5714	Dec 14 2019 15:55:15.053699	POWER SWING BLOCK	
5713	Dec 14 2019 15:55:15.023727	POWER SWING OUTER	
5712	Dec 14 2019 15:55:15.016280	TRIP 85A On (VO4)	
5711	Dec 14 2019 15:55:15.011783	RX 85A ACON On (CI5)	
5710	Dec 14 2019 15:55:14.998752	NEUTRAL TOC1 PKP	
5709	Dec 14 2019 15:55:14.993754	Osc Trigger Off (VO64)	
5708	Dec 14 2019 15:55:14.991324	OSCILLOGRAPHY TRIG'D	
5707	Dec 14 2019 15:55:14.991324	Osc Trigger On (VO64)	
5706	Dec 14 2019 15:55:14.991324	GND DIST Z2 PKP C	
5705	Dec 14 2019 15:55:14.988756	TX 85A Esp Closed (CO9)	
5704	Dec 14 2019 15:55:14.988756	TX 85A Acon Closed (CO7)	
5703	Dec 14 2019 15:55:14.988756	TX 85A On (VO10)	
5702	Dec 14 2019 15:55:14.988756	HYBRID POTT TX1	
5701	Dec 14 2019 15:55:14.988756	NTRL DIR OC1 FWD	

CHACONCAGUA_H3_S1_D60_20180625.URS
C:\USERS\EMARIN\DOCUMENTS\ARCHIVOS URS\CHACONCAGUA_H3_S1_D60_20180625
DEVICE DEFINITION
SE ACONCAGUA
ORDER CODE: D60-G03-HKH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC08000448
SETTINGS SENT TO RELAY: SATURDAY, JULY 15, 2017 12:12:59
DESCRIPTION: PACO H3 - 110KV CHAGRES
TEXT COLOR
ASSOCIATED DEVICE: (NONE)

RELAY INFORMATION

Main Firmware:	602
Boot Firmware:	301
Relay Serial Number:	AABC08000448
CPU Serial Number:	A9GC08002470
F8L Module Serial Number	A8LC08003160
H6D Module Serial Number	A6DC08001777
M4L Module Serial Number	A4LC08000696
P6U Module Serial Number	A6UC08001605
UXX Module Serial Number	
Settings Sent to Relay	Saturday, July 15, 2017 12:12:59

PRODUCT SETUP

SECURITY

Command Password	0
Setting Password	0
Command Password Access Timeout	5 min
Setting Password Access Timeout	30 min
Invalid Password Attempts	3
Password Lockout Duration	5 min
Password Access Events	Disabled
Local Setting Authorized	ON
Remote Setting Authorized	ON
Access Authorized Timeout	30 min

DISPLAY PROPERTIES

Flash Message Time	1.0 s
Default Message Timeout	300 s
Default Message Intensity (VFD Only)	25 %
Screen Saver Feature (LCD Only)	Disabled
Screen Saver Wait Time (LCD Only)	30 min
Current Cutoff Level	0.020 pu
Voltage Cutoff Level	1.0 V

COMMUNICATIONS

SERIAL PORTS

RS485 Com2 Baud Rate	19200
RS485 Com2 Parity	None
RS485 Com2 Response Min Time	0 ms

NETWORK

IP Address	172. 16. 0. 86
IP Subnet Mask	0. 0. 0. 0
Gateway IP Address	127. 0. 0. 1
Ethernet Operation Mode	Full-Duplex
OSI Network Address (NSAP)	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

MODBUS PROTOCOL

Modbus Slave Address	254
Modbus TCP Port Number	502

IEC 61850

GSSE / GOOSE CONFIGURATION

TRANSMISSION

GENERAL

Default GSSE/GOOSE Update Time	60 s

GSSE

Function	Enabled
ID	GSSEOut
Destination MAC	00 00 00 00 00 00

TX CONFIGURABLE GOOSE

GOOSEOut 1 Function	Enabled
GOOSEOut 1 ID	GOOSEOut 1
GOOSEOut 1 Destination MAC	00 00 00 00 00 00
GOOSEOut 1 VLAN Priority	4
GOOSEOut 1 VLAN ID	0
GOOSEOut 1 ETYPE APPID	0
GOOSEOut 1 ConfRev	1
GOOSEOut 1 Retransmission Curve	Relaxed

CHACONCAGUA_H3_S1_D60_20180625.URS
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SE ACONCAGUA
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TEXT COLOR
ASSOCIATED DEVICE: (NONE)

TX CONFIGURABLE GOOSE (continued from last page)

GOOSEOut 2 Function	Enabled
GOOSEOut 2 ID	GOOSEOut_2
GOOSEOut 2 Destination MAC	00 00 00 00 00 00
GOOSEOut 2 VLAN Priority	4
GOOSEOut 2 VLAN ID	0
GOOSEOut 2 ETYPE APPID	0
GOOSEOut 2 ConfRev	1
GOOSEOut 2 Retransmission Curve	Relaxed
GOOSEOut 3 Function	Enabled
GOOSEOut 3 ID	GOOSEOut_3
GOOSEOut 3 Destination MAC	00 00 00 00 00 00
GOOSEOut 3 VLAN Priority	4
GOOSEOut 3 VLAN ID	0
GOOSEOut 3 ETYPE APPID	0
GOOSEOut 3 ConfRev	1
GOOSEOut 3 Retransmission Curve	Relaxed
GOOSEOut 4 Function	Enabled
GOOSEOut 4 ID	GOOSEOut_4
GOOSEOut 4 Destination MAC	00 00 00 00 00 00
GOOSEOut 4 VLAN Priority	4
GOOSEOut 4 VLAN ID	0
GOOSEOut 4 ETYPE APPID	0
GOOSEOut 4 ConfRev	1
GOOSEOut 4 Retransmission Curve	Relaxed
GOOSEOut 5 Function	Enabled
GOOSEOut 5 ID	GOOSEOut_5
GOOSEOut 5 Destination MAC	00 00 00 00 00 00
GOOSEOut 5 VLAN Priority	4
GOOSEOut 5 VLAN ID	0
GOOSEOut 5 ETYPE APPID	0
GOOSEOut 5 ConfRev	1
GOOSEOut 5 Retransmission Curve	Relaxed
GOOSEOut 6 Function	Enabled
GOOSEOut 6 ID	GOOSEOut_6
GOOSEOut 6 Destination MAC	00 00 00 00 00 00
GOOSEOut 6 VLAN Priority	4
GOOSEOut 6 VLAN ID	0
GOOSEOut 6 ETYPE APPID	0
GOOSEOut 6 ConfRev	1
GOOSEOut 6 Retransmission Curve	Relaxed
GOOSEOut 7 Function	Enabled
GOOSEOut 7 ID	GOOSEOut_7
GOOSEOut 7 Destination MAC	00 00 00 00 00 00
GOOSEOut 7 VLAN Priority	4
GOOSEOut 7 VLAN ID	0
GOOSEOut 7 ETYPE APPID	0
GOOSEOut 7 ConfRev	1
GOOSEOut 7 Retransmission Curve	Relaxed
GOOSEOut 8 Function	Enabled
GOOSEOut 8 ID	GOOSEOut_8
GOOSEOut 8 Destination MAC	00 00 00 00 00 00
GOOSEOut 8 VLAN Priority	4
GOOSEOut 8 VLAN ID	0
GOOSEOut 8 ETYPE APPID	0
GOOSEOut 8 ConfRev	1
GOOSEOut 8 Retransmission Curve	Relaxed

SERVER CONFIGURATION

IEDName	IEDName
Logical Device Instance	LDInst
MMS TCP Port Number	102
LPHD DC PhyNam location	Location

MMXU DEADBANDS

MMXU1: TotW db	10.000 %
MMXU1: TotVAr Deadband	10.000 %
MMXU1: IEC61850 MMXU X TotVA db	10.000 %
MMXU1: TotPF Deadband	10.000 %
MMXU1: Hz Deadband	10.000 %
MMXU1: PPV phsAB Deadband	10.000 %

CHACONCAGUA_H3_S1_D60_20180625.URS
C:\USERS\EMARIN\DOCUMENTS\ARCHIVOS URS\CHACONCAGUA_H3_S1_D60_20180625
DEVICE DEFINITION
SE ACONCAGUA
ORDER CODE: D60-G03-HKH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC08000448
SETTINGS SENT TO RELAY: SATURDAY, JULY 15, 2017 12:12:59
DESCRIPTION: PACO H3 - 110KV CHAGRES
TEXT COLOR
ASSOCIATED DEVICE: (NONE)

MMXU DEADBANDS (continued from last page)

MMXU1: PPV phsBC Deadband	10.000 %
MMXU1: PPV phsCA Deadband	10.000 %
MMXU1: PhV phsA Deadband	10.000 %
MMXU1: PhV phsB Deadband	10.000 %
MMXU1: PhV phsC Deadband	10.000 %
MMXU1: A phsA Deadband	10.000 %
MMXU1: A phsB Deadband	10.000 %
MMXU1: A phsC Deadband	10.000 %
MMXU1: A neut Deadband	10.000 %
MMXU1: W phsA Deadband	10.000 %
MMXU1: W phsB Deadband	10.000 %
MMXU1: W phsC Deadband	10.000 %
MMXU1: VAr phsA Deadband	10.000 %
MMXU1: VAr phsB Deadband	10.000 %
MMXU1: VAr phsC Deadband	10.000 %
MMXU1: VA phsA Deadband	10.000 %
MMXU1: VA phsB Deadband	10.000 %
MMXU1: VA phsC Deadband	10.000 %
MMXU1: PF phsA Deadband	10.000 %
MMXU1: PF phsB Deadband	10.000 %
MMXU1: PF phsC Deadband	10.000 %
MMXU2: TotW db	10.000 %
MMXU2: TotVAr Deadband	10.000 %
MMXU2: IEC61850 MMXU X TotVA db	10.000 %
MMXU2: TotPF Deadband	10.000 %
MMXU2: Hz Deadband	10.000 %
MMXU2: PPV phsAB Deadband	10.000 %
MMXU2: PPV phsBC Deadband	10.000 %
MMXU2: PPV phsCA Deadband	10.000 %
MMXU2: PhV phsA Deadband	10.000 %
MMXU2: PhV phsB Deadband	10.000 %
MMXU2: PhV phsC Deadband	10.000 %
MMXU2: A phsA Deadband	10.000 %
MMXU2: A phsB Deadband	10.000 %
MMXU2: A phsC Deadband	10.000 %
MMXU2: A neut Deadband	10.000 %
MMXU2: W phsA Deadband	10.000 %
MMXU2: W phsB Deadband	10.000 %
MMXU2: W phsC Deadband	10.000 %
MMXU2: VAr phsA Deadband	10.000 %
MMXU2: VAr phsB Deadband	10.000 %
MMXU2: VAr phsC Deadband	10.000 %
MMXU2: VA phsA Deadband	10.000 %
MMXU2: VA phsB Deadband	10.000 %
MMXU2: VA phsC Deadband	10.000 %
MMXU2: PF phsA Deadband	10.000 %
MMXU2: PF phsB Deadband	10.000 %
MMXU2: PF phsC Deadband	10.000 %

GGIO1 STATUS CONFIGURATION

Number of Status Points	8

GGIO2 CONTROL CONFIGURATION

SPCSO 1 ctlModel	1
SPCSO 2 ctlModel	1
SPCSO 3 ctlModel	1
SPCSO 4 ctlModel	1
SPCSO 5 ctlModel	1
SPCSO 6 ctlModel	1
SPCSO 7 ctlModel	1
SPCSO 8 ctlModel	1
SPCSO 9 ctlModel	1
SPCSO 10 ctlModel	1
SPCSO 11 ctlModel	1
SPCSO 12 ctlModel	1
SPCSO 13 ctlModel	1
SPCSO 14 ctlModel	1
SPCSO 15 ctlModel	1
SPCSO 16 ctlModel	1
SPCSO 17 ctlModel	1

CHACONCAGUA_H3_S1_D60_20180625.URS
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DEVICE DEFINITION
SE ACONCAGUA
ORDER CODE: D60-G03-HKH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC08000448
SETTINGS SENT TO RELAY: SATURDAY, JULY 15, 2017 12:12:59
DESCRIPTION: PACO H3 - 110KV CHAGRES
TEXT COLOR
ASSOCIATED DEVICE: (NONE)

GGIO2 CONTROL CONFIGURATION (continued from last page)

SPCSO 18 ctlModel	1
SPCSO 19 ctlModel	1
SPCSO 20 ctlModel	1
SPCSO 21 ctlModel	1
SPCSO 22 ctlModel	1
SPCSO 23 ctlModel	1
SPCSO 24 ctlModel	1
SPCSO 25 ctlModel	1
SPCSO 26 ctlModel	1
SPCSO 27 ctlModel	1
SPCSO 28 ctlModel	1
SPCSO 29 ctlModel	1
SPCSO 30 ctlModel	1
SPCSO 31 ctlModel	1
SPCSO 32 ctlModel	1
SPCSO 33 ctlModel	1
SPCSO 34 ctlModel	1
SPCSO 35 ctlModel	1
SPCSO 36 ctlModel	1
SPCSO 37 ctlModel	1
SPCSO 38 ctlModel	1
SPCSO 39 ctlModel	1
SPCSO 40 ctlModel	1
SPCSO 41 ctlModel	1
SPCSO 42 ctlModel	1
SPCSO 43 ctlModel	1
SPCSO 44 ctlModel	1
SPCSO 45 ctlModel	1
SPCSO 46 ctlModel	1
SPCSO 47 ctlModel	1
SPCSO 48 ctlModel	1
SPCSO 49 ctlModel	1
SPCSO 50 ctlModel	1
SPCSO 51 ctlModel	1
SPCSO 52 ctlModel	1
SPCSO 53 ctlModel	1
SPCSO 54 ctlModel	1
SPCSO 55 ctlModel	1
SPCSO 56 ctlModel	1
SPCSO 57 ctlModel	1
SPCSO 58 ctlModel	1
SPCSO 59 ctlModel	1
SPCSO 60 ctlModel	1
SPCSO 61 ctlModel	1
SPCSO 62 ctlModel	1
SPCSO 63 ctlModel	1
SPCSO 64 ctlModel	1

GGIO4 ANALOG CONFIGURATION

IEC61850 GGIO4 Analogs	4
IEC61850 GGIO4 Analog 1 Value	OFF
IEC61850 GGIO4 Analog 1 db	100.000 %
IEC61850 GGIO4 Analog 1 min	0.000
IEC61850 GGIO4 Analog 1 max	1000000.000
IEC61850 GGIO4 Analog 2 Value	OFF
IEC61850 GGIO4 Analog 2 db	100.000 %
IEC61850 GGIO4 Analog 2 min	0.000
IEC61850 GGIO4 Analog 2 max	1000000.000
IEC61850 GGIO4 Analog 3 Value	OFF
IEC61850 GGIO4 Analog 3 db	100.000 %
IEC61850 GGIO4 Analog 3 min	0.000
IEC61850 GGIO4 Analog 3 max	1000000.000
IEC61850 GGIO4 Analog 4 Value	OFF
IEC61850 GGIO4 Analog 4 db	100.000 %
IEC61850 GGIO4 Analog 4 min	0.000
IEC61850 GGIO4 Analog 4 max	1000000.000
IEC61850 GGIO4 Analog 5 Value	OFF
IEC61850 GGIO4 Analog 5 db	100.000 %
IEC61850 GGIO4 Analog 5 min	0.000
IEC61850 GGIO4 Analog 5 max	1000000.000

CHACONCAGUA_H3_S1_D60_20180625.URS
C:\USERS\EMARIN\DOCUMENTS\ARCHIVOS URS\CHACONCAGUA_H3_S1_D60_20180625
DEVICE DEFINITION
SE ACONCAGUA
ORDER CODE: D60-G03-HKH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC08000448
SETTINGS SENT TO RELAY: SATURDAY, JULY 15, 2017 12:12:59
DESCRIPTION: PACO H3 - 110KV CHAGRES
TEXT COLOR
ASSOCIATED DEVICE: (NONE)

GGIO4 ANALOG CONFIGURATION (continued from last page)

IEC61850 GGIO4 Analog 6 Value	OFF
IEC61850 GGIO4 Analog 6 db	100.000 %
IEC61850 GGIO4 Analog 6 min	0.000
IEC61850 GGIO4 Analog 6 max	1000000.000
IEC61850 GGIO4 Analog 7 Value	OFF
IEC61850 GGIO4 Analog 7 db	100.000 %
IEC61850 GGIO4 Analog 7 min	0.000
IEC61850 GGIO4 Analog 7 max	1000000.000
IEC61850 GGIO4 Analog 8 Value	OFF
IEC61850 GGIO4 Analog 8 db	100.000 %
IEC61850 GGIO4 Analog 8 min	0.000
IEC61850 GGIO4 Analog 8 max	1000000.000
IEC61850 GGIO4 Analog 9 Value	OFF
IEC61850 GGIO4 Analog 9 db	100.000 %
IEC61850 GGIO4 Analog 9 min	0.000
IEC61850 GGIO4 Analog 9 max	1000000.000
IEC61850 GGIO4 Analog 10 Value	OFF
IEC61850 GGIO4 Analog 10 db	100.000 %
IEC61850 GGIO4 Analog 10 min	0.000
IEC61850 GGIO4 Analog 10 max	1000000.000
IEC61850 GGIO4 Analog 11 Value	OFF
IEC61850 GGIO4 Analog 11 db	100.000 %
IEC61850 GGIO4 Analog 11 min	0.000
IEC61850 GGIO4 Analog 11 max	1000000.000
IEC61850 GGIO4 Analog 12 Value	OFF
IEC61850 GGIO4 Analog 12 db	100.000 %
IEC61850 GGIO4 Analog 12 min	0.000
IEC61850 GGIO4 Analog 12 max	1000000.000
IEC61850 GGIO4 Analog 13 Value	OFF
IEC61850 GGIO4 Analog 13 db	100.000 %
IEC61850 GGIO4 Analog 13 min	0.000
IEC61850 GGIO4 Analog 13 max	1000000.000
IEC61850 GGIO4 Analog 14 Value	OFF
IEC61850 GGIO4 Analog 14 db	100.000 %
IEC61850 GGIO4 Analog 14 min	0.000
IEC61850 GGIO4 Analog 14 max	1000000.000
IEC61850 GGIO4 Analog 15 Value	OFF
IEC61850 GGIO4 Analog 15 db	100.000 %
IEC61850 GGIO4 Analog 15 min	0.000
IEC61850 GGIO4 Analog 15 max	1000000.000
IEC61850 GGIO4 Analog 16 Value	OFF
IEC61850 GGIO4 Analog 16 db	100.000 %
IEC61850 GGIO4 Analog 16 min	0.000
IEC61850 GGIO4 Analog 16 max	1000000.000
IEC61850 GGIO4 Analog 17 Value	OFF
IEC61850 GGIO4 Analog 17 db	100.000 %
IEC61850 GGIO4 Analog 17 min	0.000
IEC61850 GGIO4 Analog 17 max	1000000.000
IEC61850 GGIO4 Analog 18 Value	OFF
IEC61850 GGIO4 Analog 18 db	100.000 %
IEC61850 GGIO4 Analog 18 min	0.000
IEC61850 GGIO4 Analog 18 max	1000000.000
IEC61850 GGIO4 Analog 19 Value	OFF
IEC61850 GGIO4 Analog 19 db	100.000 %
IEC61850 GGIO4 Analog 19 min	0.000
IEC61850 GGIO4 Analog 19 max	1000000.000
IEC61850 GGIO4 Analog 20 Value	OFF
IEC61850 GGIO4 Analog 20 db	100.000 %
IEC61850 GGIO4 Analog 20 min	0.000
IEC61850 GGIO4 Analog 20 max	1000000.000
IEC61850 GGIO4 Analog 21 Value	OFF
IEC61850 GGIO4 Analog 21 db	100.000 %
IEC61850 GGIO4 Analog 21 min	0.000
IEC61850 GGIO4 Analog 21 max	1000000.000
IEC61850 GGIO4 Analog 22 Value	OFF
IEC61850 GGIO4 Analog 22 db	100.000 %
IEC61850 GGIO4 Analog 22 min	0.000
IEC61850 GGIO4 Analog 22 max	1000000.000
IEC61850 GGIO4 Analog 23 Value	OFF
IEC61850 GGIO4 Analog 23 db	100.000 %

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DESCRIPTION: PACO H3 - 110KV CHAGRES
TEXT COLOR
ASSOCIATED DEVICE: (NONE)

GGIO4 ANALOG CONFIGURATION (continued from last page)

IEC61850 GGIO4 Analog 23 min	0.000
IEC61850 GGIO4 Analog 23 max	1000000.000
IEC61850 GGIO4 Analog 24 Value	OFF
IEC61850 GGIO4 Analog 24 db	100.000 %
IEC61850 GGIO4 Analog 24 min	0.000
IEC61850 GGIO4 Analog 24 max	1000000.000
IEC61850 GGIO4 Analog 25 Value	OFF
IEC61850 GGIO4 Analog 25 db	100.000 %
IEC61850 GGIO4 Analog 25 min	0.000
IEC61850 GGIO4 Analog 25 max	1000000.000
IEC61850 GGIO4 Analog 26 Value	OFF
IEC61850 GGIO4 Analog 26 db	100.000 %
IEC61850 GGIO4 Analog 26 min	0.000
IEC61850 GGIO4 Analog 26 max	1000000.000
IEC61850 GGIO4 Analog 27 Value	OFF
IEC61850 GGIO4 Analog 27 db	100.000 %
IEC61850 GGIO4 Analog 27 min	0.000
IEC61850 GGIO4 Analog 27 max	1000000.000
IEC61850 GGIO4 Analog 28 Value	OFF
IEC61850 GGIO4 Analog 28 db	100.000 %
IEC61850 GGIO4 Analog 28 min	0.000
IEC61850 GGIO4 Analog 28 max	1000000.000
IEC61850 GGIO4 Analog 29 Value	OFF
IEC61850 GGIO4 Analog 29 db	100.000 %
IEC61850 GGIO4 Analog 29 min	0.000
IEC61850 GGIO4 Analog 29 max	1000000.000
IEC61850 GGIO4 Analog 30 Value	OFF
IEC61850 GGIO4 Analog 30 db	100.000 %
IEC61850 GGIO4 Analog 30 min	0.000
IEC61850 GGIO4 Analog 30 max	1000000.000
IEC61850 GGIO4 Analog 31 Value	OFF
IEC61850 GGIO4 Analog 31 db	100.000 %
IEC61850 GGIO4 Analog 31 min	0.000
IEC61850 GGIO4 Analog 31 max	1000000.000
IEC61850 GGIO4 Analog 32 Value	OFF
IEC61850 GGIO4 Analog 32 db	100.000 %
IEC61850 GGIO4 Analog 32 min	0.000
IEC61850 GGIO4 Analog 32 max	1000000.000

XCBR CONFIGURATION

XCBR1 ST.Loc Operand	OFF
Clear XCBR1 OpCnt	No
XCBR2 ST.Loc Operand	OFF
Clear XCBR2 OpCnt	No

XSWI CONFIGURATION

XSWI1 ST.Loc Operand	OFF
XSWI2 ST.Loc Operand	OFF
XSWI3 ST.Loc Operand	OFF
XSWI4 ST.Loc Operand	OFF
XSWI5 ST.Loc Operand	OFF
XSWI6 ST.Loc Operand	OFF
XSWI7 ST.Loc Operand	OFF
XSWI8 ST.Loc Operand	OFF
Clear XSWI1 OpCnt	No
Clear XSWI2 OpCnt	No
Clear XSWI3 OpCnt	No
Clear XSWI4 OpCnt	No
Clear XSWI5 OpCnt	No
Clear XSWI6 OpCnt	No
Clear XSWI7 OpCnt	No
Clear XSWI8 OpCnt	No

HTTP

HTTP TCP Port Number	80

TFTP

TFTP Main UDP Port Number	69
TFTP Data UDP Port Number 1	0
TFTP Data UDP Port Number 2	0

CHACONCAGUA_H3_S1_D60_20180625.URS
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SE ACONCAGUA
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UR SERIAL NUMBER: AABC08000448
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DESCRIPTION: PACO H3 - 110KV CHAGRES
TEXT COLOR
ASSOCIATED DEVICE: (NONE)

REAL TIME CLOCK	
IRIG-B Signal Type	DC Shift
Real Time Clock Events	Disabled
Time Zone Offset	0.0 hr
DST Function	Disabled

FAULT REPORT	
Fault Report 1 Source	Barra (SRC 1)
Fault Report 1 Trigger	ON
Fault Report 1 Positive Seq (Z1) Mag	3.00 ohms
Fault Report 1 Positive Seq (Z1) Angle	75 deg
Fault Report 1 Zero Seq (Z0) Mag	9.00 ohms
Fault Report 1 Zero Seq (Z0) Angle	75 deg
Fault Report 1 Line Length Units	km
Fault Report 1 Line Length	100.0
Fault Report 1 VT Substitution	None
Fault Report 1 System Z0 Mag	2.00 ohms
Fault Report 1 System Z0 Angle	75 deg

OSCILLOGRAPHY	
Number Of Records	15
Trigger Mode	Automatic Overwrite
Trigger Position	50 %
Trigger Source	TRIPBUS 1 OP
AC Input Waveforms	16 samples/cycle
Digital Channel 1	PH DIST Z1 PKP
Digital Channel 2	PH DIST Z2 PKP
Digital Channel 3	PH DIST Z3 PKP
Digital Channel 4	PH DIST Z4 PKP
Digital Channel 5	PH DIST Z1 OP
Digital Channel 6	PH DIST Z2 OP
Digital Channel 7	PH DIST Z3 OP
Digital Channel 8	PH DIST Z4 OP
Digital Channel 9	GND DIST Z1 PKP
Digital Channel 10	GND DIST Z2 PKP
Digital Channel 11	GND DIST Z3 PKP
Digital Channel 12	GND DIST Z4 PKP
Digital Channel 13	GND DIST Z1 OP
Digital Channel 14	GND DIST Z2 OP
Digital Channel 15	GND DIST Z3 OP
Digital Channel 16	GND DIST Z4 OP
Digital Channel 17	LINE PICKUP OP
Digital Channel 18	POWER SWING UN/BLOCK
Digital Channel 19	PHASE TOC1 PKP
Digital Channel 20	PHASE TOC1 OP A
Digital Channel 21	PHASE TOC1 OP B
Digital Channel 22	PHASE TOC1 OP C
Digital Channel 23	NEUTRAL TOC1 OP
Digital Channel 24	BKR FAIL 1 T1 OP
Digital Channel 25	BKR FAIL 1 T2 OP
Digital Channel 26	52H3 ABIERTO On(H1a)
Digital Channel 27	SW TEL-CONEC On(H1c)
Digital Channel 28	52H3 CERRADO On (VO4)
Digital Channel 29	PHASE IOC1 PKP A
Digital Channel 30	PHASE IOC1 PKP B
Digital Channel 31	PHASE IOC1 PKP C
Digital Channel 32	PHASE IOC2 OP
Digital Channel 33	PHASE IOC1 OP A
Digital Channel 34	PHASE IOC1 OP B
Digital Channel 35	PHASE IOC1 OP C
Digital Channel 36	PHASE TOC2 OP A
Digital Channel 37	PHASE TOC2 OP B
Digital Channel 38	PHASE TOC2 OP C
Digital Channel 39	PHASE TOC2 PKP A
Digital Channel 40	PHASE TOC2 PKP A
Digital Channel 41	PHASE TOC2 PKP B
Digital Channel 42	PHASE TOC2 PKP C

DATA LOGGER	
Data Logger Mode	Continuous

CHACONCAGUA_H3_S1_D60_20180625.URS
C:\USERS\EMARIN\DOCUMENTS\ARCHIVOS URS\CHACONCAGUA_H3_S1_D60_20180625
DEVICE DEFINITION
SE ACONCAGUA
ORDER CODE: D60-G03-HKH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC08000448
SETTINGS SENT TO RELAY: SATURDAY, JULY 15, 2017 12:12:59
DESCRIPTION: PACO H3 - 110KV CHAGRES
TEXT COLOR
ASSOCIATED DEVICE: (NONE)

DATA LOGGER (continued from last page)

Data Logger Trigger	OFF
Rate	60000 msec
Configuration	--- CHNL x --.- DAYS

USER-PROGRAMMABLE LEDS

USER PROGRAMMABLE LEDS

LED 1: OPERAND	PH DIST Z1 PKP
LED 1: TYPE	Latched
LED 2: OPERAND	PH DIST Z2 PKP
LED 2: TYPE	Latched
LED 3: OPERAND	PH DIST Z3 PKP
LED 3: TYPE	Latched
LED 4: OPERAND	PH DIST Z4 PKP
LED 4: TYPE	Latched
LED 5: OPERAND	PH DIST Z1 OP
LED 5: TYPE	Latched
LED 6: OPERAND	PH DIST Z2 OP
LED 6: TYPE	Latched
LED 7: OPERAND	PH DIST Z3 OP
LED 7: TYPE	Latched
LED 8: OPERAND	PH DIST Z4 OP
LED 8: TYPE	Latched
LED 9: OPERAND	GND DIST Z1 PKP
LED 9: TYPE	Latched
LED 10: OPERAND	GND DIST Z2 PKP
LED 10: TYPE	Latched
LED 11: OPERAND	GND DIST Z3 PKP
LED 11: TYPE	Latched
LED 12: OPERAND	GND DIST Z4 PKP
LED 12: TYPE	Latched
LED 13: OPERAND	GND DIST Z1 OP
LED 13: TYPE	Latched
LED 14: OPERAND	GND DIST Z2 OP
LED 14: TYPE	Latched
LED 15: OPERAND	GND DIST Z3 OP
LED 15: TYPE	Latched
LED 16: OPERAND	GND DIST Z4 OP
LED 16: TYPE	Latched
LED 17: OPERAND	LINE PICKUP OP
LED 17: TYPE	Latched
LED 18: OPERAND	POWER SWING UN/BLOCK
LED 18: TYPE	Latched
LED 19: OPERAND	PHASE TOC1 PKP
LED 19: TYPE	Latched
LED 20: OPERAND	PHASE TOC1 OP A
LED 20: TYPE	Latched
LED 21: OPERAND	PHASE TOC1 OP B
LED 21: TYPE	Latched
LED 22: OPERAND	PHASE TOC1 OP C
LED 22: TYPE	Latched
LED 23: OPERAND	FALLA MENOR On (VO3)
LED 23: TYPE	Latched
LED 24: OPERAND	NEUTRAL TOC1 OP
LED 24: TYPE	Latched
LED 25: OPERAND	BKR FAIL 1 T1 OP
LED 25: TYPE	Latched
LED 26: OPERAND	BKR FAIL 1 T2 OP
LED 26: TYPE	Latched
LED 27: OPERAND	52H3 ABIERTO On(H1a)
LED 27: TYPE	Self-Reset
LED 28: OPERAND	52H3 CERRADO On (VO4)
LED 28: TYPE	Self-Reset
LED 29: OPERAND	SW TEL-CONEC On(H1c)
LED 29: TYPE	Self-Reset
LED 30: OPERAND	SC Emerg On (VO5)
LED 30: TYPE	Latched

USER-PROGRAMMABLE SELF TESTS

Remote Device Off Function	Enabled
Battery Fail Function	Enabled

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ASSOCIATED DEVICE: (NONE)

USER-PROGRAMMABLE SELF TESTS (continued from last page)

SNTP Fail Function	Enabled
IRIG B Fail Function	Enabled

USER-DEFINABLE DISPLAYS

USER DISPLAY 1: Top Line	ACTUAL VALUES
USER DISPLAY 1: Bottom Line	PRODUCT INFO
USER DISPLAY 1: Item 1	0
USER DISPLAY 1: Item 2	0
USER DISPLAY 1: Item 3	0
USER DISPLAY 1: Item 4	0
USER DISPLAY 1: Item 5	0
USER DISPLAY 2: Top Line	ACTUAL VALUES
USER DISPLAY 2: Bottom Line	PRODUCT INFO
USER DISPLAY 2: Item 1	0
USER DISPLAY 2: Item 2	0
USER DISPLAY 2: Item 3	0
USER DISPLAY 2: Item 4	0
USER DISPLAY 2: Item 5	0
USER DISPLAY 3: Top Line	ACTUAL VALUES
USER DISPLAY 3: Bottom Line	PRODUCT INFO
USER DISPLAY 3: Item 1	0
USER DISPLAY 3: Item 2	0
USER DISPLAY 3: Item 3	0
USER DISPLAY 3: Item 4	0
USER DISPLAY 3: Item 5	0
Invoke and Scroll	OFF

INSTALLATION

Relay Name	Relay-1

SYSTEM SETUP

AC INPUTS

CURRENT

CT F1: Phase CT Primary	500 A
CT F1: Phase CT Secondary	5 A
CT F1: Ground CT Primary	500 A
CT F1: Ground CT Secondary	5 A

VOLTAGE

VT F5: Phase VT Connection	Wye
VT F5: Phase VT Secondary	66.4 V
VT F5: Phase VT Ratio	1000.00 :1
VT F5: Auxiliary VT Connection	Vag
VT F5: Auxiliary VT Secondary	66.3 V
VT F5: Auxiliary VT Ratio	2000.00 :1

POWER SYSTEM

Nominal Frequency	50 Hz
Phase Rotation	ABC
Frequency And Phase Reference	Barra (SRC 1)
Frequency Tracking Function	Enabled

SIGNAL SOURCES

SOURCE 1: Name	Barra
SOURCE 1: Phase CT	F1
SOURCE 1: Ground CT	None
SOURCE 1: Phase VT	F5
SOURCE 1: Auxiliary VT	None
SOURCE 2: Name	Linea
SOURCE 2: Phase CT	None
SOURCE 2: Ground CT	None
SOURCE 2: Phase VT	None
SOURCE 2: Auxiliary VT	F5

FLEXLOGIC

FLEXLOGIC EQUATION EDITOR

FlexLogic Entry 1	SRC1 VT FUSE FAIL VOL LOSS
FlexLogic Entry 2	NOT
FlexLogic Entry 3	= VCA_OK (VO1)
FlexLogic Entry 4	SRC1 VT FUSE FAIL OP

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ASSOCIATED DEVICE: (NONE)

FLEXLOGIC EQUATION EDITOR (continued from last page)

FlexLogic Entry 5	POWER SWING UN/BLOCK
FlexLogic Entry 6	OR(2)
FlexLogic Entry 7	= BLOQUEO_21 (VO2)
FlexLogic Entry 8	BATTERY FAIL
FlexLogic Entry 9	ANY MINOR ERROR
FlexLogic Entry 10	IRIG-b FAILURE
FlexLogic Entry 11	CLOCK UNSYNCHRONIZED
FlexLogic Entry 12	OR(4)
FlexLogic Entry 13	= FALLA MENOR (VO3)
FlexLogic Entry 14	52H3 ABIERTO Off(H1a)
FlexLogic Entry 15	= 52H3 CERRADO (VO4)
FlexLogic Entry 16	NEUTRAL TOC1 OP
FlexLogic Entry 17	NEUTRAL TOC2 OP
FlexLogic Entry 18	AND(2)
FlexLogic Entry 19	= SC Emerg (VO5)
FlexLogic Entry 20	52H3 ABIERTO On(H1a)
FlexLogic Entry 21	SW TEL-CONEC On(H1c)
FlexLogic Entry 22	POTT RX ESP On(H3a)
FlexLogic Entry 23	POTT RX MAQ On(H5a)
FlexLogic Entry 24	OR(2)
FlexLogic Entry 25	ECO_OFF On (VO8)
FlexLogic Entry 26	NOT
FlexLogic Entry 27	AND(4)
FlexLogic Entry 28	= ECO (VO6)
FlexLogic Entry 29	ECO On (VO6)
FlexLogic Entry 30	HYBRID POTT TX1
FlexLogic Entry 31	OR(2)
FlexLogic Entry 32	SW TEL-CONEC On(H1c)
FlexLogic Entry 33	AND(2)
FlexLogic Entry 34	= TX 85A (VO7)
FlexLogic Entry 35	ECO On (VO6)
FlexLogic Entry 36	TIMER 1
FlexLogic Entry 37	= ECO_OFF (VO8)
FlexLogic Entry 38	POTT RX ESP On(H3a)
FlexLogic Entry 39	POTT RX MAQ On(H5a)
FlexLogic Entry 40	AND(2)
FlexLogic Entry 41	= RX 85A 2 PTA (VO9)
FlexLogic Entry 42	END

FLEXLOGIC TIMERS

Timer 1: Type	millisecond
Timer 1: Pickup Delay	100
Timer 1: Dropout Delay	1000

GROUPED ELEMENTS
GROUP 1

LINE PICKUP [GROUP 1]

Function	Enabled
Signal Source	Barra (SRC 1)
Phase IOC Line Pickup	2.500 pu
UV Pickup	0.700 pu
Line End Open Pickup Delay	0.150 s
Line End Open Reset Delay	0.090 s
OV Pickup Delay	0.040 s
Autoreclose Coordination Bypass	Enabled
Autoreclose Coordination Pickup Delay	0.045 s
Autoreclose Coordination Reset Delay	0.005 s
Terminal Open	52H3 ABIERTO On(H1a)
AR Accelerate	OFF
Distance Trip	Enabled
Block	OFF
Target	Latched
Events	Enabled

DISTANCE

DISTANCE [GROUP 1]

Source	Barra (SRC 1)
Memory Duration	10 cycles
Force Self-Polar	OFF
Force Mem-Polar	OFF

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SE ACONCAGUA
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TEXT COLOR
ASSOCIATED DEVICE: (NONE)

PHASE DISTANCE [GROUP 1]

PHASE DISTANCE Z1: Function	Enabled
PHASE DISTANCE Z1: Direction	Forward
PHASE DISTANCE Z1: Shape	Mho
PHASE DISTANCE Z1: Xfmr Vol Connection	None
PHASE DISTANCE Z1: Xfmr Curr Connection	None
PHASE DISTANCE Z1: Reach	0.40 ohms
PHASE DISTANCE Z1: RCA	68 deg
PHASE DISTANCE Z1: Rev Reach	0.02 ohms
PHASE DISTANCE Z1: Rev Reach RCA	90 deg
PHASE DISTANCE Z1: Comp Limit	90 deg
PHASE DISTANCE Z1: DIR RCA	68 deg
PHASE DISTANCE Z1: DIR Comp Limit	90 deg
PHASE DISTANCE Z1: Quad Right Blinder	0.02 ohms
PHASE DISTANCE Z1: Quad Right Blinder RCA	76 deg
PHASE DISTANCE Z1: Quad Left Blinder	2.95 ohms
PHASE DISTANCE Z1: Quad Left Blinder RCA	80 deg
PHASE DISTANCE Z1: Supervision	0.200 pu
PHASE DISTANCE Z1: Volt Level	0.000 pu
PHASE DISTANCE Z1: Delay	0.000 s
PHASE DISTANCE Z1: Block	BLOQUEO_21 On (VO2)
PHASE DISTANCE Z1: Target	Latched
PHASE DISTANCE Z1: Events	Enabled
PHASE DISTANCE Z2: Function	Enabled
PHASE DISTANCE Z2: Direction	Forward
PHASE DISTANCE Z2: Shape	Mho
PHASE DISTANCE Z2: Xfmr Vol Connection	None
PHASE DISTANCE Z2: Xfmr Curr Connection	None
PHASE DISTANCE Z2: Reach	16.53 ohms
PHASE DISTANCE Z2: RCA	68 deg
PHASE DISTANCE Z2: Rev Reach	0.02 ohms
PHASE DISTANCE Z2: Rev Reach RCA	90 deg
PHASE DISTANCE Z2: Comp Limit	90 deg
PHASE DISTANCE Z2: DIR RCA	68 deg
PHASE DISTANCE Z2: DIR Comp Limit	90 deg
PHASE DISTANCE Z2: Quad Right Blinder	6.29 ohms
PHASE DISTANCE Z2: Quad Right Blinder RCA	76 deg
PHASE DISTANCE Z2: Quad Left Blinder	6.30 ohms
PHASE DISTANCE Z2: Quad Left Blinder RCA	76 deg
PHASE DISTANCE Z2: Supervision	0.200 pu
PHASE DISTANCE Z2: Volt Level	0.000 pu
PHASE DISTANCE Z2: Delay	0.700 s
PHASE DISTANCE Z2: Block	BLOQUEO_21 On (VO2)
PHASE DISTANCE Z2: Target	Latched
PHASE DISTANCE Z2: Events	Enabled
PHASE DISTANCE Z3: Function	Enabled
PHASE DISTANCE Z3: Direction	Forward
PHASE DISTANCE Z3: Shape	Mho
PHASE DISTANCE Z3: Xfmr Vol Connection	None
PHASE DISTANCE Z3: Xfmr Curr Connection	None
PHASE DISTANCE Z3: Reach	0.61 ohms
PHASE DISTANCE Z3: RCA	68 deg
PHASE DISTANCE Z3: Rev Reach	0.02 ohms
PHASE DISTANCE Z3: Rev Reach RCA	90 deg
PHASE DISTANCE Z3: Comp Limit	90 deg
PHASE DISTANCE Z3: DIR RCA	68 deg
PHASE DISTANCE Z3: DIR Comp Limit	90 deg
PHASE DISTANCE Z3: Quad Right Blinder	15.24 ohms
PHASE DISTANCE Z3: Quad Right Blinder RCA	76 deg
PHASE DISTANCE Z3: Quad Left Blinder	15.24 ohms
PHASE DISTANCE Z3: Quad Left Blinder RCA	76 deg
PHASE DISTANCE Z3: Supervision	0.200 pu
PHASE DISTANCE Z3: Volt Level	0.000 pu
PHASE DISTANCE Z3: Delay	0.400 s
PHASE DISTANCE Z3: Block	BLOQUEO_21 On (VO2)
PHASE DISTANCE Z3: Target	Latched
PHASE DISTANCE Z3: Events	Enabled
PHASE DISTANCE Z4: Function	Enabled
PHASE DISTANCE Z4: Direction	Reverse
PHASE DISTANCE Z4: Shape	Mho

CHACONCAGUA_H3_S1_D60_20180625.URS
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SE ACONCAGUA
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VERSION: 6.0X
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DESCRIPTION: PACO H3 - 110KV CHAGRES
TEXT COLOR
ASSOCIATED DEVICE: (NONE)

PHASE DISTANCE [GROUP 1] (continued from last page)

PHASE DISTANCE Z4: Xfmr Vol Connection	None
PHASE DISTANCE Z4: Xfmr Curr Connection	None
PHASE DISTANCE Z4: Reach	15.00 ohms
PHASE DISTANCE Z4: RCA	68 deg
PHASE DISTANCE Z4: Rev Reach	0.02 ohms
PHASE DISTANCE Z4: Rev Reach RCA	90 deg
PHASE DISTANCE Z4: Comp Limit	90 deg
PHASE DISTANCE Z4: DIR RCA	68 deg
PHASE DISTANCE Z4: DIR Comp Limit	90 deg
PHASE DISTANCE Z4: Quad Right Blinder	2.16 ohms
PHASE DISTANCE Z4: Quad Right Blinder RCA	76 deg
PHASE DISTANCE Z4: Quad Left Blinder	2.16 ohms
PHASE DISTANCE Z4: Quad Left Blinder RCA	76 deg
PHASE DISTANCE Z4: Supervision	0.200 pu
PHASE DISTANCE Z4: Volt Level	0.000 pu
PHASE DISTANCE Z4: Delay	2.200 s
PHASE DISTANCE Z4: Block	BLOQUEO_21 On (VO2)
PHASE DISTANCE Z4: Target	Latched
PHASE DISTANCE Z4: Events	Enabled

GROUND DISTANCE [GROUP 1]

GROUND DISTANCE Z1: Function	Enabled
GROUND DISTANCE Z1: Direction	Forward
GROUND DISTANCE Z1: Shape	Quad
GROUND DISTANCE Z1: Z0/Z1 Mag	5.61
GROUND DISTANCE Z1: Z0/Z1 Ang	9 deg
GROUND DISTANCE Z1: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z1: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z1: Reach	0.40 ohms
GROUND DISTANCE Z1: RCA	68 deg
GROUND DISTANCE Z1: Rev Reach	0.02 ohms
GROUND DISTANCE Z1: Rev Reach RCA	90 deg
GROUND DISTANCE Z1: POL Current	Zero-seq
GROUND DISTANCE Z1: Non-Homogen Ang	-3.0 deg
GROUND DISTANCE Z1: Comp Limit	90 deg
GROUND DISTANCE Z1: DIR RCA	68 deg
GROUND DISTANCE Z1: DIR Comp Limit	90 deg
GROUND DISTANCE Z1: Quad Right Blinder	1.11 ohms
GROUND DISTANCE Z1: Quad Right Blinder RCA	68 deg
GROUND DISTANCE Z1: Quad Left Blinder	1.11 ohms
GROUND DISTANCE Z1: Quad Left Blinder RCA	68 deg
GROUND DISTANCE Z1: Supervision	0.200 pu
GROUND DISTANCE Z1: Volt Level	0.000 pu
GROUND DISTANCE Z1: Delay	0.000 s
GROUND DISTANCE Z1: Block	SRC1 VT FUSE FAIL OP
GROUND DISTANCE Z1: Target	Latched
GROUND DISTANCE Z1: Events	Enabled
GROUND DISTANCE Z2: Function	Enabled
GROUND DISTANCE Z2: Direction	Forward
GROUND DISTANCE Z2: Shape	Quad
GROUND DISTANCE Z2: Z0/Z1 Mag	5.16
GROUND DISTANCE Z2: Z0/Z1 Ang	13 deg
GROUND DISTANCE Z2: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z2: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z2: Reach	15.21 ohms
GROUND DISTANCE Z2: RCA	68 deg
GROUND DISTANCE Z2: Rev Reach	0.02 ohms
GROUND DISTANCE Z2: Rev Reach RCA	90 deg
GROUND DISTANCE Z2: POL Current	Zero-seq
GROUND DISTANCE Z2: Non-Homogen Ang	-3.0 deg
GROUND DISTANCE Z2: Comp Limit	90 deg
GROUND DISTANCE Z2: DIR RCA	68 deg
GROUND DISTANCE Z2: DIR Comp Limit	90 deg
GROUND DISTANCE Z2: Quad Right Blinder	9.30 ohms
GROUND DISTANCE Z2: Quad Right Blinder RCA	68 deg
GROUND DISTANCE Z2: Quad Left Blinder	9.30 ohms
GROUND DISTANCE Z2: Quad Left Blinder RCA	68 deg
GROUND DISTANCE Z2: Supervision	0.200 pu
GROUND DISTANCE Z2: Volt Level	0.000 pu
GROUND DISTANCE Z2: Delay	0.700 s

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ASSOCIATED DEVICE: (NONE)

GROUND DISTANCE [GROUP 1] (continued from last page)

GROUND DISTANCE Z2: Block	SRC1 VT FUSE FAIL OP
GROUND DISTANCE Z2: Target	Latched
GROUND DISTANCE Z2: Events	Enabled
GROUND DISTANCE Z3: Function	Enabled
GROUND DISTANCE Z3: Direction	Forward
GROUND DISTANCE Z3: Shape	Quad
GROUND DISTANCE Z3: Z0/Z1 Mag	5.16
GROUND DISTANCE Z3: Z0/Z1 Ang	13 deg
GROUND DISTANCE Z3: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z3: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z3: Reach	0.61 ohms
GROUND DISTANCE Z3: RCA	68 deg
GROUND DISTANCE Z3: Rev Reach	0.02 ohms
GROUND DISTANCE Z3: Rev Reach RCA	90 deg
GROUND DISTANCE Z3: POL Current	Zero-seq
GROUND DISTANCE Z3: Non-Homogen Ang	-3.0 deg
GROUND DISTANCE Z3: Comp Limit	90 deg
GROUND DISTANCE Z3: DIR RCA	68 deg
GROUND DISTANCE Z3: DIR Comp Limit	90 deg
GROUND DISTANCE Z3: Quad Right Blinder	1.73 ohms
GROUND DISTANCE Z3: Quad Right Blinder RCA	68 deg
GROUND DISTANCE Z3: Quad Left Blinder	1.73 ohms
GROUND DISTANCE Z3: Quad Left Blinder RCA	68 deg
GROUND DISTANCE Z3: Supervision	0.200 pu
GROUND DISTANCE Z3: Volt Level	0.000 pu
GROUND DISTANCE Z3: Delay	0.400 s
GROUND DISTANCE Z3: Block	SRC1 VT FUSE FAIL OP
GROUND DISTANCE Z3: Target	Latched
GROUND DISTANCE Z3: Events	Enabled
GROUND DISTANCE Z4: Function	Enabled
GROUND DISTANCE Z4: Direction	Reverse
GROUND DISTANCE Z4: Shape	Quad
GROUND DISTANCE Z4: Z0/Z1 Mag	5.16
GROUND DISTANCE Z4: Z0/Z1 Ang	13 deg
GROUND DISTANCE Z4: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z4: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z4: Reach	16.14 ohms
GROUND DISTANCE Z4: RCA	68 deg
GROUND DISTANCE Z4: Rev Reach	0.02 ohms
GROUND DISTANCE Z4: Rev Reach RCA	90 deg
GROUND DISTANCE Z4: POL Current	Zero-seq
GROUND DISTANCE Z4: Non-Homogen Ang	-3.0 deg
GROUND DISTANCE Z4: Comp Limit	90 deg
GROUND DISTANCE Z4: DIR RCA	68 deg
GROUND DISTANCE Z4: DIR Comp Limit	90 deg
GROUND DISTANCE Z4: Quad Right Blinder	9.30 ohms
GROUND DISTANCE Z4: Quad Right Blinder RCA	68 deg
GROUND DISTANCE Z4: Quad Left Blinder	9.30 ohms
GROUND DISTANCE Z4: Quad Left Blinder RCA	68 deg
GROUND DISTANCE Z4: Supervision	0.200 pu
GROUND DISTANCE Z4: Volt Level	0.000 pu
GROUND DISTANCE Z4: Delay	2.200 s
GROUND DISTANCE Z4: Block	SRC1 VT FUSE FAIL OP
GROUND DISTANCE Z4: Target	Latched
GROUND DISTANCE Z4: Events	Enabled

POWER SWING DETECT [GROUP 1]

Function	Enabled
Source	Barra (SRC 1)
Shape	Mho Shape
Mode	Two Step
Supv	0.110 pu
Fwd Reach	23.24 ohms
Quad Fwd Mid	60.00 ohms
Quad Fwd Out	38.72 ohms
Fwd Rca	68 deg
Rev Reach	23.24 ohms
Quad Rev Mid	60.00 ohms
Quad Rev Out	38.72 ohms
Rev Rca	68 deg

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POWER SWING DETECT [GROUP 1] (continued from last page)

Outer Limit Angle	120 deg
Middle Limit Angle	90 deg
Inner Limit Angle	60 deg
Outer Rgt Bld	33.37 ohms
Outer Lft Bld	33.37 ohms
Midle Rgt Bld	100.00 ohms
Midle Lft Bld	100.00 ohms
Inner Rgt Bld	18.29 ohms
Inner Lft Bld	18.29 ohms
Delay 1 Pickup	0.045 s
Delay 1 Reset	0.065 s
Delay 2 Pickup	0.017 s
Delay 3 Pickup	0.009 s
Delay 4 Pickup	0.017 s
Seal-In Delay	0.400 s
Trip Mode	Delayed
Block	OFF
Target	Latched
Event	Enabled

PHASE CURRENT

PHASE IOC [GROUP 1]

PHASE IOC1: Function	Enabled
PHASE IOC1: Source	Barra (SRC 1)
PHASE IOC1: Pickup	0.980 pu
PHASE IOC1: Delay	0.40 s
PHASE IOC1: Reset Delay	0.00 s
PHASE IOC1: Block A	VCA_OK On (VO1)
PHASE IOC1: Block B	VCA_OK On (VO1)
PHASE IOC1: Block C	VCA_OK On (VO1)
PHASE IOC1: Target	Latched
PHASE IOC1: Events	Enabled

NEUTRAL CURRENT

NEUTRAL TOC [GROUP 1]

NEUTRAL TOC1: Function	Enabled
NEUTRAL TOC1: Source	Barra (SRC 1)
NEUTRAL TOC1: Input	RMS
NEUTRAL TOC1: Pickup	0.170 pu
NEUTRAL TOC1: Curve	IEC Curve A
NEUTRAL TOC1: TD Multiplier	0.20
NEUTRAL TOC1: Reset	Instantaneous
NEUTRAL TOC1: Block	NTRL DIR OC1 REV
NEUTRAL TOC1: Target	Latched
NEUTRAL TOC1: Events	Enabled
NEUTRAL TOC2: Function	Enabled
NEUTRAL TOC2: Source	Barra (SRC 1)
NEUTRAL TOC2: Input	RMS
NEUTRAL TOC2: Pickup	4.235 pu
NEUTRAL TOC2: Curve	Definite Time
NEUTRAL TOC2: TD Multiplier	0.30
NEUTRAL TOC2: Reset	Instantaneous
NEUTRAL TOC2: Block	NTRL DIR OC1 REV
NEUTRAL TOC2: Target	Latched
NEUTRAL TOC2: Events	Enabled

NEUTRAL IOC [GROUP 1]

NEUTRAL IOC1: Function	Enabled
NEUTRAL IOC1: Source	Barra (SRC 1)
NEUTRAL IOC1: Pickup	0.147 pu
NEUTRAL IOC1: Delay	0.40 s
NEUTRAL IOC1: Reset Delay	0.00 s
NEUTRAL IOC1: Block	VCA_OK On (VO1)
NEUTRAL IOC1: Target	Latched
NEUTRAL IOC1: Events	Enabled

NEUTRAL DIRECTIONAL OC [GROUP 1]

NEUTRAL DIR OC1: Function	Enabled
NEUTRAL DIR OC1: Source	Barra (SRC 1)
NEUTRAL DIR OC1: Polarizing	Voltage

CHACONCAGUA_H3_S1_D60_20180625.URS
C:\USERS\EMARIN\DOCUMENTS\ARCHIVOS URS\CHACONCAGUA_H3_S1_D60_20180625
DEVICE DEFINITION
SE ACONCAGUA
ORDER CODE: D60-G03-HKH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC08000448
SETTINGS SENT TO RELAY: SATURDAY, JULY 15, 2017 12:12:59
DESCRIPTION: PACO H3 - 110KV CHAGRES
TEXT COLOR
ASSOCIATED DEVICE: (NONE)

NEUTRAL DIRECTIONAL OC [GROUP 1] (continued from last page)

NEUTRAL DIR OC1: Polarizing Volt	Calculated V0
NEUTRAL DIR OC1: Op Current	Calculated 3I0
NEUTRAL DIR OC1: POS SEQ Restraint	0.063
NEUTRAL DIR OC1: Offset	0.00 ohms
NEUTRAL DIR OC1: Forward ECA	75 ° Lag
NEUTRAL DIR OC1: Forward Limit Angle	90 deg
NEUTRAL DIR OC1: Forward Pickup	0.050 pu
NEUTRAL DIR OC1: Reverse Limit Angle	90 deg
NEUTRAL DIR OC1: Reverse Pickup	0.050 pu
NEUTRAL DIR OC1: Block	OFF
NEUTRAL DIR OC1: Target	Latched
NEUTRAL DIR OC1: Events	Enabled

BREAKER FAILURE [GROUP 1]

BF 1: Function	Enabled
BF 1: Mode	1-Pole
BF 1: Source	Barra (SRC 1)
BF 1: Current Supervision	Yes
BF 1: Use Seal-In	Yes
BF 1: Three Pole Initiate	TRIPBUS 1 OP
BF 1: Block	OFF
BF 1: Phase Current Supv Pickup	0.110 pu
BF 1: Neutral Current Supv Pickup	1.050 pu
BF 1: Use Timer 1	Yes
BF 1: Timer 1 Pickup Delay	0.080 s
BF 1: Use Timer 2	Yes
BF 1: Timer 2 Pickup Delay	0.200 s
BF 1: Use Timer 3	No
BF 1: Timer 3 Pickup Delay	0.000 s
BF 1: Breaker Pos1 Phase A/3P	OFF
BF 1: Breaker Pos2 Phase A/3P	OFF
BF 1: Breaker Test On	OFF
BF 1: Phase Current HiSet Pickup	1.050 pu
BF 1: Neutral Current HiSet Pickup	1.050 pu
BF 1: Phase Current LoSet Pickup	1.050 pu
BF 1: Neutral Current LoSet Pickup	1.050 pu
BF 1: LoSet Time Delay	0.000 s
BF 1: Trip Dropout Delay	0.000 s
BF 1: Target	Self-reset
BF 1: Events	Enabled
BF 1: Phase A Initiate	TRIPBUS 1 OP
BF 1: Phase B Initiate	TRIPBUS 1 OP
BF 1: Phase C Initiate	TRIPBUS 1 OP
BF 1: Breaker Pos1 Phase B	OFF
BF 1: Breaker Pos1 Phase C	OFF
BF 1: Breaker Pos2 Phase B	OFF
BF 1: Breaker Pos2 Phase C	OFF

CONTROL ELEMENTS

TRIP BUS

Trip Bus 1 Function	Enabled
Trip Bus 1 Block	OFF
Trip Bus 1 Pickup Delay	0.00 s
Trip Bus 1 Reset Delay	0.00 s
Trip Bus 1 Input 1	PH DIST Z1 OP
Trip Bus 1 Input 2	PH DIST Z2 OP
Trip Bus 1 Input 3	PH DIST Z3 OP
Trip Bus 1 Input 4	PH DIST Z4 OP
Trip Bus 1 Input 5	GND DIST Z1 OP
Trip Bus 1 Input 6	GND DIST Z2 OP
Trip Bus 1 Input 7	GND DIST Z3 OP
Trip Bus 1 Input 8	GND DIST Z4 OP
Trip Bus 1 Input 9	PHASE IOC1 OP
Trip Bus 1 Input 10	NEUTRAL TOC1 OP
Trip Bus 1 Input 11	LINE PICKUP OP
Trip Bus 1 Input 12	NEUTRAL IOC1 OP
Trip Bus 1 Input 13	NEUTRAL TOC2 OP
Trip Bus 1 Input 14	HYBRID POTT OP
Trip Bus 1 Input 15	OFF
Trip Bus 1 Input 16	OFF

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TRIP BUS (continued from last page)

Trip Bus 1 Latching	Disabled
Trip Bus 1 Reset	OFF
Trip Bus 1 Target	Self-reset
Trip Bus 1 Events	Enabled

MONITORING ELEMENTS

VT FUSE FAILURE

VT FUSE FAILURE 1: Function	Enabled
VT FUSE FAILURE 1: Neutral Wire Open Detection	Enabled
VT FUSE FAILURE 1: 3rd Harmonic Pickup	0.100 pu

PILOT SCHEMES

1P HYBRID POTT SCHEME

Function	Enabled
Block	OFF
Permissive Echo	Disabled
Echo Condition	OFF
Weak Infeed	Disabled
W/I Condition	OFF
Rx Pickup Delay	0.000 s
Trans Block Pickup Delay	0.020 s
Trans Block Reset Delay	0.090 s
Echo Duration	0.100 s
Echo Lockout	0.250 s
Seal-In Delay	0.000 s
Gnd Dir OC Fwd	NTRL DIR OC1 FWD
Gnd Dir OC Rev	NTRL DIR OC1 REV
No of Comm Bits	1
Rx1	RX 85A 2 PTA On (VO9)
Rx2	OFF
Rx3	OFF
Rx4	OFF
Target	Self-reset
Event	Enabled

INPUTS/OUTPUTS

CONTACT INPUTS

[H1a] Contact Input 1a ID	52H3 ABIERTO
[H1a] Contact Input 1a Debounce Time	2.0 ms
[H1a] Contact Input 1a Events	Enabled
[H1c] Contact Input 1c ID	SW TEL-CONEC
[H1c] Contact Input 1c Debounce Time	2.0 ms
[H1c] Contact Input 1c Events	Enabled
[H2a] Contact Input 2a ID	Cont Ip 3
[H2a] Contact Input 2a Debounce Time	2.0 ms
[H2a] Contact Input 2a Events	Disabled
[H2c] Contact Input 2c ID	Cont Ip 4
[H2c] Contact Input 2c Debounce Time	2.0 ms
[H2c] Contact Input 2c Events	Disabled
[H3a] Contact Input 3a ID	POTT RX ESP
[H3a] Contact Input 3a Debounce Time	2.0 ms
[H3a] Contact Input 3a Events	Enabled
[H3c] Contact Input 3c ID	Cont Ip 6
[H3c] Contact Input 3c Debounce Time	2.0 ms
[H3c] Contact Input 3c Events	Disabled
[H4a] Contact Input 4a ID	Cont Ip 7
[H4a] Contact Input 4a Debounce Time	2.0 ms
[H4a] Contact Input 4a Events	Disabled
[H4c] Contact Input 4c ID	Cont Ip 8
[H4c] Contact Input 4c Debounce Time	2.0 ms
[H4c] Contact Input 4c Events	Disabled
[H5a] Contact Input 5a ID	POTT RX MAQ
[H5a] Contact Input 5a Debounce Time	2.0 ms
[H5a] Contact Input 5a Events	Enabled
[H5c] Contact Input 5c ID	Cont Ip 10
[H5c] Contact Input 5c Debounce Time	2.0 ms
[H5c] Contact Input 5c Events	Disabled
[H6a] Contact Input 6a ID	Cont Ip 11
[H6a] Contact Input 6a Debounce Time	2.0 ms
[H6a] Contact Input 6a Events	Disabled

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ASSOCIATED DEVICE: (NONE)

CONTACT INPUTS (continued from last page)

[H6c] Contact Input 6c ID	Cont Ip 12
[H6c] Contact Input 6c Debounce Time	2.0 ms
[H6c] Contact Input 6c Events	Disabled
[H7a] Contact Input 7a ID	Cont Ip 13
[H7a] Contact Input 7a Debounce Time	2.0 ms
[H7a] Contact Input 7a Events	Disabled
[H7c] Contact Input 7c ID	Cont Ip 14
[H7c] Contact Input 7c Debounce Time	2.0 ms
[H7c] Contact Input 7c Events	Disabled
[H8a] Contact Input 8a ID	Cont Ip 15
[H8a] Contact Input 8a Debounce Time	2.0 ms
[H8a] Contact Input 8a Events	Disabled
[H8c] Contact Input 8c ID	Cont Ip 16
[H8c] Contact Input 8c Debounce Time	2.0 ms
[H8c] Contact Input 8c Events	Disabled
[P7a] Contact Input 7a ID	Cont Ip 17
[P7a] Contact Input 7a Debounce Time	2.0 ms
[P7a] Contact Input 7a Events	Disabled
[P7c] Contact Input 7c ID	Cont Ip 18
[P7c] Contact Input 7c Debounce Time	1.5 ms
[P7c] Contact Input 7c Events	Disabled
[P8a] Contact Input 8a ID	Cont Ip 19
[P8a] Contact Input 8a Debounce Time	2.0 ms
[P8a] Contact Input 8a Events	Disabled
[P8c] Contact Input 8c ID	Cont Ip 20
[P8c] Contact Input 8c Debounce Time	2.0 ms
[P8c] Contact Input 8c Events	Disabled

CONTACT INPUT THRESHOLDS

52H3 ABIERTO, SW TEL-CONEC, Cont Ip 3, Cont Ip 4(H1a, H1c, H2a, H2c)	84 Vdc
POTT RX ESP, Cont Ip 6, Cont Ip 7, Cont Ip 8(H3a, H3c, H4a, H4c)	84 Vdc
POTT RX MAQ, Cont Ip 10, Cont Ip 11, Cont Ip 12(H5a, H5c, H6a, H6c)	84 Vdc
Cont Ip 13, Cont Ip 14, Cont Ip 15, Cont Ip 16(H7a, H7c, H8a, H8c)	84 Vdc
Cont Ip 17, Cont Ip 18, Cont Ip 19, Cont Ip 20(P7a, P7c, P8a, P8c)	84 Vdc

CONTACT OUTPUTS

[M2] Contact Output 2 ID	Trip 50BF
[M2] Contact Output 2 Operate	BKR FAIL 1 T2 OP
[M2] Latching Output 2 Reset	ON
[M2] Latching Output 2 Type	Operate-dominant
[M2] Contact Output 2 Events	Enabled
[M4] Contact Output 4 ID	Trip Bob-1
[M4] Contact Output 4 Operate	TRIPBUS 1 OP
[M4] Latching Output 4 Reset	ON
[M4] Latching Output 4 Type	Operate-dominant
[M4] Contact Output 4 Events	Enabled
[M10] Contact Output 10 ID	Trip Bob-2
[M10] Contact Output 10 Operate	BKR FAIL 1 T1 OP
[M10] Latching Output 10 Reset	ON
[M10] Latching Output 10 Type	Reset-dominant
[M10] Contact Output 10 Events	Enabled
[P4] Contact Output 18 ID	Alarma21-21N
[P4] Contact Output 18 Operate	TRIPBUS 1 OP
[P4] Contact Output 18 Seal-In	OFF
[P4] Contact Output 18 Events	Enabled
[P5] Contact Output 19 ID	TX 85A ESP
[P5] Contact Output 19 Operate	TX 85A On (VO7)
[P5] Contact Output 19 Seal-In	OFF
[P5] Contact Output 19 Events	Enabled
[P6] Contact Output 20 ID	TX 85A MAQ
[P6] Contact Output 20 Operate	TX 85A On (VO7)
[P6] Contact Output 20 Seal-In	OFF
[P6] Contact Output 20 Events	Enabled

VIRTUAL OUTPUTS

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ASSOCIATED DEVICE: (NONE)

VIRTUAL OUTPUTS (continued from last page)

Virtual Output 1 ID	VCA_OK
Virtual Output 1 Events	Enabled
Virtual Output 2 ID	BLOQUEO_21
Virtual Output 2 Events	Enabled
Virtual Output 3 ID	FALLA MENOR
Virtual Output 3 Events	Enabled
Virtual Output 4 ID	52H3 CERRADO
Virtual Output 4 Events	Enabled
Virtual Output 5 ID	SC Emerg
Virtual Output 5 Events	Enabled
Virtual Output 6 ID	ECO
Virtual Output 6 Events	Enabled
Virtual Output 7 ID	TX 85A
Virtual Output 7 Events	Enabled
Virtual Output 8 ID	ECO_OFF
Virtual Output 8 Events	Enabled
Virtual Output 9 ID	RX 85A 2 PTA
Virtual Output 9 Events	Enabled

REMOTE DEVICES

Remote Device 1 ID	Remote Device 1
Remote Device 1 ETYPE APPID	0
Remote Device 1 DATASET	Fixed
Remote Device 2 ID	Remote Device 2
Remote Device 2 ETYPE APPID	0
Remote Device 2 DATASET	Fixed
Remote Device 3 ID	Remote Device 3
Remote Device 3 ETYPE APPID	0
Remote Device 3 DATASET	Fixed
Remote Device 4 ID	Remote Device 4
Remote Device 4 ETYPE APPID	0
Remote Device 4 DATASET	Fixed
Remote Device 5 ID	Remote Device 5
Remote Device 5 ETYPE APPID	0
Remote Device 5 DATASET	Fixed
Remote Device 6 ID	Remote Device 6
Remote Device 6 ETYPE APPID	0
Remote Device 6 DATASET	Fixed
Remote Device 7 ID	Remote Device 7
Remote Device 7 ETYPE APPID	0
Remote Device 7 DATASET	Fixed
Remote Device 8 ID	Remote Device 8
Remote Device 8 ETYPE APPID	0
Remote Device 8 DATASET	Fixed
Remote Device 9 ID	Remote Device 9
Remote Device 9 ETYPE APPID	0
Remote Device 9 DATASET	Fixed
Remote Device 10 ID	Remote Device 10
Remote Device 10 ETYPE APPID	0
Remote Device 10 DATASET	Fixed
Remote Device 11 ID	Remote Device 11
Remote Device 11 ETYPE APPID	0
Remote Device 11 DATASET	Fixed
Remote Device 12 ID	Remote Device 12
Remote Device 12 ETYPE APPID	0
Remote Device 12 DATASET	Fixed
Remote Device 13 ID	Remote Device 13
Remote Device 13 ETYPE APPID	0
Remote Device 13 DATASET	Fixed
Remote Device 14 ID	Remote Device 14
Remote Device 14 ETYPE APPID	0
Remote Device 14 DATASET	Fixed
Remote Device 15 ID	Remote Device 15
Remote Device 15 ETYPE APPID	0
Remote Device 15 DATASET	Fixed
Remote Device 16 ID	Remote Device 16
Remote Device 16 ETYPE APPID	0
Remote Device 16 DATASET	Fixed

IEC 61850 GOOSE ANALOGS INPUTS

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ASSOCIATED DEVICE: (NONE)

IEC 61850 GOOSE ANALOGS INPUTS (continued from last page)

IEC61850 GOOSE Analog Input 1 Default Value	1000.000
IEC61850 GOOSE Analog Input 1 Mode	Default Value
IEC61850 GOOSE Analog Input 1 Units	
IEC61850 GOOSE Analog Input 1 PU Base	1.000
IEC61850 GOOSE Analog Input 2 Default Value	1000.000
IEC61850 GOOSE Analog Input 2 Mode	Default Value
IEC61850 GOOSE Analog Input 2 Units	
IEC61850 GOOSE Analog Input 2 PU Base	1.000
IEC61850 GOOSE Analog Input 3 Default Value	1000.000
IEC61850 GOOSE Analog Input 3 Mode	Default Value
IEC61850 GOOSE Analog Input 3 Units	
IEC61850 GOOSE Analog Input 3 PU Base	1.000
IEC61850 GOOSE Analog Input 4 Default Value	1000.000
IEC61850 GOOSE Analog Input 4 Mode	Default Value
IEC61850 GOOSE Analog Input 4 Units	
IEC61850 GOOSE Analog Input 4 PU Base	1.000
IEC61850 GOOSE Analog Input 5 Default Value	1000.000
IEC61850 GOOSE Analog Input 5 Mode	Default Value
IEC61850 GOOSE Analog Input 5 Units	
IEC61850 GOOSE Analog Input 5 PU Base	1.000
IEC61850 GOOSE Analog Input 6 Default Value	1000.000
IEC61850 GOOSE Analog Input 6 Mode	Default Value
IEC61850 GOOSE Analog Input 6 Units	
IEC61850 GOOSE Analog Input 6 PU Base	1.000
IEC61850 GOOSE Analog Input 7 Default Value	1000.000
IEC61850 GOOSE Analog Input 7 Mode	Default Value
IEC61850 GOOSE Analog Input 7 Units	
IEC61850 GOOSE Analog Input 7 PU Base	1.000
IEC61850 GOOSE Analog Input 8 Default Value	1000.000
IEC61850 GOOSE Analog Input 8 Mode	Default Value
IEC61850 GOOSE Analog Input 8 Units	
IEC61850 GOOSE Analog Input 8 PU Base	1.000
IEC61850 GOOSE Analog Input 9 Default Value	1000.000
IEC61850 GOOSE Analog Input 9 Mode	Default Value
IEC61850 GOOSE Analog Input 9 Units	
IEC61850 GOOSE Analog Input 9 PU Base	1.000
IEC61850 GOOSE Analog Input 10 Default Value	1000.000
IEC61850 GOOSE Analog Input 10 Mode	Default Value
IEC61850 GOOSE Analog Input 10 Units	
IEC61850 GOOSE Analog Input 10 PU Base	1.000
IEC61850 GOOSE Analog Input 11 Default Value	1000.000
IEC61850 GOOSE Analog Input 11 Mode	Default Value
IEC61850 GOOSE Analog Input 11 Units	
IEC61850 GOOSE Analog Input 11 PU Base	1.000
IEC61850 GOOSE Analog Input 12 Default Value	1000.000
IEC61850 GOOSE Analog Input 12 Mode	Default Value
IEC61850 GOOSE Analog Input 12 Units	
IEC61850 GOOSE Analog Input 12 PU Base	1.000
IEC61850 GOOSE Analog Input 13 Default Value	1000.000
IEC61850 GOOSE Analog Input 13 Mode	Default Value
IEC61850 GOOSE Analog Input 13 Units	
IEC61850 GOOSE Analog Input 13 PU Base	1.000
IEC61850 GOOSE Analog Input 14 Default Value	1000.000
IEC61850 GOOSE Analog Input 14 Mode	Default Value
IEC61850 GOOSE Analog Input 14 Units	
IEC61850 GOOSE Analog Input 14 PU Base	1.000
IEC61850 GOOSE Analog Input 15 Default Value	1000.000
IEC61850 GOOSE Analog Input 15 Mode	Default Value
IEC61850 GOOSE Analog Input 15 Units	
IEC61850 GOOSE Analog Input 15 PU Base	1.000
IEC61850 GOOSE Analog Input 16 Default Value	1000.000
IEC61850 GOOSE Analog Input 16 Mode	Default Value
IEC61850 GOOSE Analog Input 16 Units	
IEC61850 GOOSE Analog Input 16 PU Base	1.000
IEC61850 GOOSE Analog Input 17 Default Value	1000.000
IEC61850 GOOSE Analog Input 17 Mode	Default Value
IEC61850 GOOSE Analog Input 17 Units	
IEC61850 GOOSE Analog Input 17 PU Base	1.000
IEC61850 GOOSE Analog Input 18 Default Value	1000.000
IEC61850 GOOSE Analog Input 18 Mode	Default Value

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SE ACONCAGUA
ORDER CODE: D60-G03-HKH-F8L-H6D-M4L-P6U-UXX-WXX
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TEXT COLOR
ASSOCIATED DEVICE: (NONE)

IEC 61850 GOOSE ANALOGS INPUTS (continued from last page)

IEC61850 GOOSE Analog Input 18 Units	
IEC61850 GOOSE Analog Input 18 PU Base	1.000
IEC61850 GOOSE Analog Input 19 Default Value	1000.000
IEC61850 GOOSE Analog Input 19 Mode	Default Value
IEC61850 GOOSE Analog Input 19 Units	
IEC61850 GOOSE Analog Input 19 PU Base	1.000
IEC61850 GOOSE Analog Input 20 Default Value	1000.000
IEC61850 GOOSE Analog Input 20 Mode	Default Value
IEC61850 GOOSE Analog Input 20 Units	
IEC61850 GOOSE Analog Input 20 PU Base	1.000
IEC61850 GOOSE Analog Input 21 Default Value	1000.000
IEC61850 GOOSE Analog Input 21 Mode	Default Value
IEC61850 GOOSE Analog Input 21 Units	
IEC61850 GOOSE Analog Input 21 PU Base	1.000
IEC61850 GOOSE Analog Input 22 Default Value	1000.000
IEC61850 GOOSE Analog Input 22 Mode	Default Value
IEC61850 GOOSE Analog Input 22 Units	
IEC61850 GOOSE Analog Input 22 PU Base	1.000
IEC61850 GOOSE Analog Input 23 Default Value	1000.000
IEC61850 GOOSE Analog Input 23 Mode	Default Value
IEC61850 GOOSE Analog Input 23 Units	
IEC61850 GOOSE Analog Input 23 PU Base	1.000
IEC61850 GOOSE Analog Input 24 Default Value	1000.000
IEC61850 GOOSE Analog Input 24 Mode	Default Value
IEC61850 GOOSE Analog Input 24 Units	
IEC61850 GOOSE Analog Input 24 PU Base	1.000
IEC61850 GOOSE Analog Input 25 Default Value	1000.000
IEC61850 GOOSE Analog Input 25 Mode	Default Value
IEC61850 GOOSE Analog Input 25 Units	
IEC61850 GOOSE Analog Input 25 PU Base	1.000
IEC61850 GOOSE Analog Input 26 Default Value	1000.000
IEC61850 GOOSE Analog Input 26 Mode	Default Value
IEC61850 GOOSE Analog Input 26 Units	
IEC61850 GOOSE Analog Input 26 PU Base	1.000
IEC61850 GOOSE Analog Input 27 Default Value	1000.000
IEC61850 GOOSE Analog Input 27 Mode	Default Value
IEC61850 GOOSE Analog Input 27 Units	
IEC61850 GOOSE Analog Input 27 PU Base	1.000
IEC61850 GOOSE Analog Input 28 Default Value	1000.000
IEC61850 GOOSE Analog Input 28 Mode	Default Value
IEC61850 GOOSE Analog Input 28 Units	
IEC61850 GOOSE Analog Input 28 PU Base	1.000
IEC61850 GOOSE Analog Input 29 Default Value	1000.000
IEC61850 GOOSE Analog Input 29 Mode	Default Value
IEC61850 GOOSE Analog Input 29 Units	
IEC61850 GOOSE Analog Input 29 PU Base	1.000
IEC61850 GOOSE Analog Input 30 Default Value	1000.000
IEC61850 GOOSE Analog Input 30 Mode	Default Value
IEC61850 GOOSE Analog Input 30 Units	
IEC61850 GOOSE Analog Input 30 PU Base	1.000
IEC61850 GOOSE Analog Input 31 Default Value	1000.000
IEC61850 GOOSE Analog Input 31 Mode	Default Value
IEC61850 GOOSE Analog Input 31 Units	
IEC61850 GOOSE Analog Input 31 PU Base	1.000
IEC61850 GOOSE Analog Input 32 Default Value	1000.000
IEC61850 GOOSE Analog Input 32 Mode	Default Value
IEC61850 GOOSE Analog Input 32 Units	
IEC61850 GOOSE Analog Input 32 PU Base	1.000

IEC 61850 GOOSE UINTEGERS INPUTS

IEC61850 GOOSE UInteger Input 1 Default Value	1000
IEC61850 GOOSE UInteger Input 1 Mode	Default Value
IEC61850 GOOSE UInteger Input 2 Default Value	1000
IEC61850 GOOSE UInteger Input 2 Mode	Default Value
IEC61850 GOOSE UInteger Input 3 Default Value	1000
IEC61850 GOOSE UInteger Input 3 Mode	Default Value
IEC61850 GOOSE UInteger Input 4 Default Value	1000
IEC61850 GOOSE UInteger Input 4 Mode	Default Value
IEC61850 GOOSE UInteger Input 5 Default Value	1000
IEC61850 GOOSE UInteger Input 5 Mode	Default Value

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ASSOCIATED DEVICE: (NONE)

IEC 61850 GOOSE UINTEGERS INPUTS (continued from last page)

IEC61850 GOOSE UInteger Input 6 Default Value	1000
IEC61850 GOOSE UInteger Input 6 Mode	Default Value
IEC61850 GOOSE UInteger Input 7 Default Value	1000
IEC61850 GOOSE UInteger Input 7 Mode	Default Value
IEC61850 GOOSE UInteger Input 8 Default Value	1000
IEC61850 GOOSE UInteger Input 8 Mode	Default Value
IEC61850 GOOSE UInteger Input 9 Default Value	1000
IEC61850 GOOSE UInteger Input 9 Mode	Default Value
IEC61850 GOOSE UInteger Input 10 Default Value	1000
IEC61850 GOOSE UInteger Input 10 Mode	Default Value
IEC61850 GOOSE UInteger Input 11 Default Value	1000
IEC61850 GOOSE UInteger Input 11 Mode	Default Value
IEC61850 GOOSE UInteger Input 12 Default Value	1000
IEC61850 GOOSE UInteger Input 12 Mode	Default Value
IEC61850 GOOSE UInteger Input 13 Default Value	1000
IEC61850 GOOSE UInteger Input 13 Mode	Default Value
IEC61850 GOOSE UInteger Input 14 Default Value	1000
IEC61850 GOOSE UInteger Input 14 Mode	Default Value
IEC61850 GOOSE UInteger Input 15 Default Value	1000
IEC61850 GOOSE UInteger Input 15 Mode	Default Value
IEC61850 GOOSE UInteger Input 16 Default Value	1000
IEC61850 GOOSE UInteger Input 16 Mode	Default Value

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

RELAY INFORMATION

Main Firmware:	602
Boot Firmware:	301
Relay Serial Number:	AABC07000995
CPU Serial Number:	A9GC07004001
F8L Module Serial Number	A8LC07001946
H6D Module Serial Number	A6DC07002983
M4L Module Serial Number	A4LC07000559
P6U Module Serial Number	A6UC07002327
UXX Module Serial Number	
Settings Send to Relay	Wednesday, October 07, 2015 13:07:34

PRODUCT SETUP

SECURITY

Command Password	0
Setting Password	0
Command Password Access Timeout	5 min
Setting Password Access Timeout	30 min
Invalid Password Attempts	3
Password Lockout Duration	5 min
Password Access Events	Disabled
Local Setting Authorized	ON
Remote Setting Authorized	ON
Access Authorized Timeout	30 min

DISPLAY PROPERTIES

Flash Message Time	1.0 s
Default Message Timeout	20 s
Default Message Intensity (VFD Only)	25 %
Screen Saver Feature (LCD Only)	Disabled
Screen Saver Wait Time (LCD Only)	5 min
Current Cutoff Level	0.020 pu
Voltage Cutoff Level	1.0 V

CLEAR RELAY RECORDS

Clear Fault Reports	OFF
Clear Event Records	OFF
Clear Oscillography	OFF
Clear Data Logger	OFF
CLEAR Breaker 1 Arcing Amps	OFF
CLEAR Breaker 2 Arcing Amps	OFF
Clear Energy	OFF
Reset Unauth Access	OFF

COMMUNICATIONS

SERIAL PORTS

RS485 Com2 Baud Rate	115200
RS485 Com2 Parity	None
RS485 Com2 Response Min Time	0 ms

NETWORK

IP Address	172. 16. 2. 14
IP Subnet Mask	255.255.255. 0
Gateway IP Address	172. 16. 2. 1
Ethernet Operation Mode	Full-Duplex
OSI Network Address (NSAP)	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

MODBUS PROTOCOL

Modbus Slave Address	14
Modbus TCP Port Number	502

DNP PROTOCOL

DNP Channel 1 Port	NETWORK - TCP
DNP Channel 2 Port	NONE
DNP Address	2
DNP Client Address 1	172. 16. 0. 1

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VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
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DESCRIPTION: (NONE)
TEXT COLOR

DNP PROTOCOL (continued from last page)

DNP Client Address 2	172. 16. 0. 2
DNP Client Address 3	0. 0. 0. 0
DNP Client Address 4	0. 0. 0. 0
DNP Client Address 5	0. 0. 0. 0
DNP TCP/UDP Port Number	20000
DNP Unsol Resp Function	Enabled
DNP Unsol Resp Timeout	5 s
DNP Unsol Resp Max Retries	10
DNP Unsol Resp Dest Addr	1
DNP Current Scale Factor	1
DNP Voltage Scale Factor	1
DNP Power Scale Factor	1
DNP Energy Scale Factor	1
DNP Power Factor Scale Factor	1
DNP Other Scale Factor	1
DNP Current Default Deadband	30000
DNP Voltage Default Deadband	30000
DNP Power Default Deadband	30000
DNP Energy Default Deadband	30000
DNP Power Factor Default Deadband	30000
DNP Other Default Deadband	30000
DNP Time Sync IIN Period	1440 min
DNP Message Fragment Size	240
DNP Object 1 Default Variation	2
DNP Object 2 Default Variation	2
DNP Object 20 Default Variation	1
DNP Object 21 Default Variation	1
DNP Object 22 Default Variation	1
DNP Object 23 Default Variation	1
DNP Object 30 Default Variation	1
DNP Object 32 Default Variation	1
DNP Number of Paired Controls	0
DNP TCP Connection Timeout	120 s

DNP - IEC104 POINTS LISTS

DNP Binary Input Point 0	PH DIST Z1 OP
DNP Binary Input Point 1	PH DIST Z2 OP
DNP Binary Input Point 2	PH DIST Z3 OP
DNP Binary Input Point 3	PH DIST Z4 OP
DNP Binary Input Point 4	GND DIST Z1 OP
DNP Binary Input Point 5	GND DIST Z2 OP
DNP Binary Input Point 6	GND DIST Z3 OP
DNP Binary Input Point 7	GND DIST Z4 OP
DNP Binary Input Point 8	NEUTRAL TOC1 OP
DNP Binary Input Point 9	BKR FAIL 1 T1 OP
DNP Binary Input Point 10	LINE PICKUP OP
DNP Binary Input Point 11	TRIP 85A On (VO4)
DNP Binary Input Point 12	Virt Op 9 On (VO5)
DNP Binary Input Point 13	HYBRID POTT OP
DNP Binary Input Point 14	OFF
DNP Binary Input Point 15	OFF
DNP Binary Input Point 16	OFF
DNP Binary Input Point 17	OFF
DNP Binary Input Point 18	OFF
DNP Binary Input Point 19	OFF
DNP Binary Input Point 20	OFF
DNP Binary Input Point 21	OFF
DNP Binary Input Point 22	OFF
DNP Binary Input Point 23	OFF
DNP Binary Input Point 24	OFF
DNP Binary Input Point 25	OFF
DNP Binary Input Point 26	OFF
DNP Binary Input Point 27	OFF
DNP Binary Input Point 28	OFF
DNP Binary Input Point 29	OFF

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UR SERIAL NUMBER: AABC07000995
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DESCRIPTION: (NONE)
TEXT COLOR

DNP - IEC104 POINTS LISTS (continued from last page)

DNP Binary Input Point 30	OFF
DNP Binary Input Point 31	OFF
DNP Binary Input Point 32	OFF
DNP Binary Input Point 33	OFF
DNP Binary Input Point 34	OFF
DNP Binary Input Point 35	OFF
DNP Binary Input Point 36	OFF
DNP Binary Input Point 37	OFF
DNP Binary Input Point 38	OFF
DNP Binary Input Point 39	OFF
DNP Binary Input Point 40	OFF
DNP Binary Input Point 41	OFF
DNP Binary Input Point 42	OFF
DNP Binary Input Point 43	OFF
DNP Binary Input Point 44	OFF
DNP Binary Input Point 45	OFF
DNP Binary Input Point 46	OFF
DNP Binary Input Point 47	OFF
DNP Binary Input Point 48	OFF
DNP Binary Input Point 49	OFF
DNP Binary Input Point 50	OFF
DNP Binary Input Point 51	OFF
DNP Binary Input Point 52	OFF
DNP Binary Input Point 53	OFF
DNP Binary Input Point 54	OFF
DNP Binary Input Point 55	OFF
DNP Binary Input Point 56	OFF
DNP Binary Input Point 57	OFF
DNP Binary Input Point 58	OFF
DNP Binary Input Point 59	OFF
DNP Binary Input Point 60	OFF
DNP Binary Input Point 61	OFF
DNP Binary Input Point 62	OFF
DNP Binary Input Point 63	OFF
DNP Binary Input Point 64	OFF
DNP Binary Input Point 65	OFF
DNP Binary Input Point 66	OFF
DNP Binary Input Point 67	OFF
DNP Binary Input Point 68	OFF
DNP Binary Input Point 69	OFF
DNP Binary Input Point 70	OFF
DNP Binary Input Point 71	OFF
DNP Binary Input Point 72	OFF
DNP Binary Input Point 73	OFF
DNP Binary Input Point 74	OFF
DNP Binary Input Point 75	OFF
DNP Binary Input Point 76	OFF
DNP Binary Input Point 77	OFF
DNP Binary Input Point 78	OFF
DNP Binary Input Point 79	OFF
DNP Binary Input Point 80	OFF
DNP Binary Input Point 81	OFF
DNP Binary Input Point 82	OFF
DNP Binary Input Point 83	OFF
DNP Binary Input Point 84	OFF
DNP Binary Input Point 85	OFF
DNP Binary Input Point 86	OFF
DNP Binary Input Point 87	OFF
DNP Binary Input Point 88	OFF
DNP Binary Input Point 89	OFF
DNP Binary Input Point 90	OFF
DNP Binary Input Point 91	OFF
DNP Binary Input Point 92	OFF
DNP Binary Input Point 93	OFF
DNP Binary Input Point 94	OFF

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DESCRIPTION: (NONE)
TEXT COLOR

DNP - IEC104 POINTS LISTS (continued from last page)

DNP Binary Input Point 95	OFF
DNP Binary Input Point 96	OFF
DNP Binary Input Point 97	OFF
DNP Binary Input Point 98	OFF
DNP Binary Input Point 99	OFF
DNP Binary Input Point 100	OFF
DNP Binary Input Point 101	OFF
DNP Binary Input Point 102	OFF
DNP Binary Input Point 103	OFF
DNP Binary Input Point 104	OFF
DNP Binary Input Point 105	OFF
DNP Binary Input Point 106	OFF
DNP Binary Input Point 107	OFF
DNP Binary Input Point 108	OFF
DNP Binary Input Point 109	OFF
DNP Binary Input Point 110	OFF
DNP Binary Input Point 111	OFF
DNP Binary Input Point 112	OFF
DNP Binary Input Point 113	OFF
DNP Binary Input Point 114	OFF
DNP Binary Input Point 115	OFF
DNP Binary Input Point 116	OFF
DNP Binary Input Point 117	OFF
DNP Binary Input Point 118	OFF
DNP Binary Input Point 119	OFF
DNP Binary Input Point 120	OFF
DNP Binary Input Point 121	OFF
DNP Binary Input Point 122	OFF
DNP Binary Input Point 123	OFF
DNP Binary Input Point 124	OFF
DNP Binary Input Point 125	OFF
DNP Binary Input Point 126	OFF
DNP Binary Input Point 127	OFF
DNP Binary Input Point 128	OFF
DNP Binary Input Point 129	OFF
DNP Binary Input Point 130	OFF
DNP Binary Input Point 131	OFF
DNP Binary Input Point 132	OFF
DNP Binary Input Point 133	OFF
DNP Binary Input Point 134	OFF
DNP Binary Input Point 135	OFF
DNP Binary Input Point 136	OFF
DNP Binary Input Point 137	OFF
DNP Binary Input Point 138	OFF
DNP Binary Input Point 139	OFF
DNP Binary Input Point 140	OFF
DNP Binary Input Point 141	OFF
DNP Binary Input Point 142	OFF
DNP Binary Input Point 143	OFF
DNP Binary Input Point 144	OFF
DNP Binary Input Point 145	OFF
DNP Binary Input Point 146	OFF
DNP Binary Input Point 147	OFF
DNP Binary Input Point 148	OFF
DNP Binary Input Point 149	OFF
DNP Binary Input Point 150	OFF
DNP Binary Input Point 151	OFF
DNP Binary Input Point 152	OFF
DNP Binary Input Point 153	OFF
DNP Binary Input Point 154	OFF
DNP Binary Input Point 155	OFF
DNP Binary Input Point 156	OFF
DNP Binary Input Point 157	OFF
DNP Binary Input Point 158	OFF
DNP Binary Input Point 159	OFF

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UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

DNP - IEC104 POINTS LISTS (continued from last page)

DNP Binary Input Point 160	OFF
DNP Binary Input Point 161	OFF
DNP Binary Input Point 162	OFF
DNP Binary Input Point 163	OFF
DNP Binary Input Point 164	OFF
DNP Binary Input Point 165	OFF
DNP Binary Input Point 166	OFF
DNP Binary Input Point 167	OFF
DNP Binary Input Point 168	OFF
DNP Binary Input Point 169	OFF
DNP Binary Input Point 170	OFF
DNP Binary Input Point 171	OFF
DNP Binary Input Point 172	OFF
DNP Binary Input Point 173	OFF
DNP Binary Input Point 174	OFF
DNP Binary Input Point 175	OFF
DNP Binary Input Point 176	OFF
DNP Binary Input Point 177	OFF
DNP Binary Input Point 178	OFF
DNP Binary Input Point 179	OFF
DNP Binary Input Point 180	OFF
DNP Binary Input Point 181	OFF
DNP Binary Input Point 182	OFF
DNP Binary Input Point 183	OFF
DNP Binary Input Point 184	OFF
DNP Binary Input Point 185	OFF
DNP Binary Input Point 186	OFF
DNP Binary Input Point 187	OFF
DNP Binary Input Point 188	OFF
DNP Binary Input Point 189	OFF
DNP Binary Input Point 190	OFF
DNP Binary Input Point 191	OFF
DNP Binary Input Point 192	OFF
DNP Binary Input Point 193	OFF
DNP Binary Input Point 194	OFF
DNP Binary Input Point 195	OFF
DNP Binary Input Point 196	OFF
DNP Binary Input Point 197	OFF
DNP Binary Input Point 198	OFF
DNP Binary Input Point 199	OFF
DNP Binary Input Point 200	OFF
DNP Binary Input Point 201	OFF
DNP Binary Input Point 202	OFF
DNP Binary Input Point 203	OFF
DNP Binary Input Point 204	OFF
DNP Binary Input Point 205	OFF
DNP Binary Input Point 206	OFF
DNP Binary Input Point 207	OFF
DNP Binary Input Point 208	OFF
DNP Binary Input Point 209	OFF
DNP Binary Input Point 210	OFF
DNP Binary Input Point 211	OFF
DNP Binary Input Point 212	OFF
DNP Binary Input Point 213	OFF
DNP Binary Input Point 214	OFF
DNP Binary Input Point 215	OFF
DNP Binary Input Point 216	OFF
DNP Binary Input Point 217	OFF
DNP Binary Input Point 218	OFF
DNP Binary Input Point 219	OFF
DNP Binary Input Point 220	OFF
DNP Binary Input Point 221	OFF
DNP Binary Input Point 222	OFF
DNP Binary Input Point 223	OFF
DNP Binary Input Point 224	OFF

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DESCRIPTION: (NONE)
TEXT COLOR

DNP - IEC104 POINTS LISTS (continued from last page)

DNP Binary Input Point 225	OFF
DNP Binary Input Point 226	OFF
DNP Binary Input Point 227	OFF
DNP Binary Input Point 228	OFF
DNP Binary Input Point 229	OFF
DNP Binary Input Point 230	OFF
DNP Binary Input Point 231	OFF
DNP Binary Input Point 232	OFF
DNP Binary Input Point 233	OFF
DNP Binary Input Point 234	OFF
DNP Binary Input Point 235	OFF
DNP Binary Input Point 236	OFF
DNP Binary Input Point 237	OFF
DNP Binary Input Point 238	OFF
DNP Binary Input Point 239	OFF
DNP Binary Input Point 240	OFF
DNP Binary Input Point 241	OFF
DNP Binary Input Point 242	OFF
DNP Binary Input Point 243	OFF
DNP Binary Input Point 244	OFF
DNP Binary Input Point 245	OFF
DNP Binary Input Point 246	OFF
DNP Binary Input Point 247	OFF
DNP Binary Input Point 248	OFF
DNP Binary Input Point 249	OFF
DNP Binary Input Point 250	OFF
DNP Binary Input Point 251	OFF
DNP Binary Input Point 252	OFF
DNP Binary Input Point 253	OFF
DNP Binary Input Point 254	OFF
DNP Binary Input Point 255	OFF
DNP Analog Input Point 0	OFF
DNP Analog Input Point 1	OFF
DNP Analog Input Point 2	OFF
DNP Analog Input Point 3	OFF
DNP Analog Input Point 4	OFF
DNP Analog Input Point 5	OFF
DNP Analog Input Point 6	OFF
DNP Analog Input Point 7	OFF
DNP Analog Input Point 8	OFF
DNP Analog Input Point 9	OFF
DNP Analog Input Point 10	OFF
DNP Analog Input Point 11	OFF
DNP Analog Input Point 12	OFF
DNP Analog Input Point 13	OFF
DNP Analog Input Point 14	OFF
DNP Analog Input Point 15	OFF
DNP Analog Input Point 16	OFF
DNP Analog Input Point 17	OFF
DNP Analog Input Point 18	OFF
DNP Analog Input Point 19	OFF
DNP Analog Input Point 20	OFF
DNP Analog Input Point 21	OFF
DNP Analog Input Point 22	OFF
DNP Analog Input Point 23	OFF
DNP Analog Input Point 24	OFF
DNP Analog Input Point 25	OFF
DNP Analog Input Point 26	OFF
DNP Analog Input Point 27	OFF
DNP Analog Input Point 28	OFF
DNP Analog Input Point 29	OFF
DNP Analog Input Point 30	OFF
DNP Analog Input Point 31	OFF
DNP Analog Input Point 32	OFF
DNP Analog Input Point 33	OFF

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VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

DNP - IEC104 POINTS LISTS (continued from last page)

DNP Analog Input Point 34	OFF
DNP Analog Input Point 35	OFF
DNP Analog Input Point 36	OFF
DNP Analog Input Point 37	OFF
DNP Analog Input Point 38	OFF
DNP Analog Input Point 39	OFF
DNP Analog Input Point 40	OFF
DNP Analog Input Point 41	OFF
DNP Analog Input Point 42	OFF
DNP Analog Input Point 43	OFF
DNP Analog Input Point 44	OFF
DNP Analog Input Point 45	OFF
DNP Analog Input Point 46	OFF
DNP Analog Input Point 47	OFF
DNP Analog Input Point 48	OFF
DNP Analog Input Point 49	OFF
DNP Analog Input Point 50	OFF
DNP Analog Input Point 51	OFF
DNP Analog Input Point 52	OFF
DNP Analog Input Point 53	OFF
DNP Analog Input Point 54	OFF
DNP Analog Input Point 55	OFF
DNP Analog Input Point 56	OFF
DNP Analog Input Point 57	OFF
DNP Analog Input Point 58	OFF
DNP Analog Input Point 59	OFF
DNP Analog Input Point 60	OFF
DNP Analog Input Point 61	OFF
DNP Analog Input Point 62	OFF
DNP Analog Input Point 63	OFF
DNP Analog Input Point 64	OFF
DNP Analog Input Point 65	OFF
DNP Analog Input Point 66	OFF
DNP Analog Input Point 67	OFF
DNP Analog Input Point 68	OFF
DNP Analog Input Point 69	OFF
DNP Analog Input Point 70	OFF
DNP Analog Input Point 71	OFF
DNP Analog Input Point 72	OFF
DNP Analog Input Point 73	OFF
DNP Analog Input Point 74	OFF
DNP Analog Input Point 75	OFF
DNP Analog Input Point 76	OFF
DNP Analog Input Point 77	OFF
DNP Analog Input Point 78	OFF
DNP Analog Input Point 79	OFF
DNP Analog Input Point 80	OFF
DNP Analog Input Point 81	OFF
DNP Analog Input Point 82	OFF
DNP Analog Input Point 83	OFF
DNP Analog Input Point 84	OFF
DNP Analog Input Point 85	OFF
DNP Analog Input Point 86	OFF
DNP Analog Input Point 87	OFF
DNP Analog Input Point 88	OFF
DNP Analog Input Point 89	OFF
DNP Analog Input Point 90	OFF
DNP Analog Input Point 91	OFF
DNP Analog Input Point 92	OFF
DNP Analog Input Point 93	OFF
DNP Analog Input Point 94	OFF
DNP Analog Input Point 95	OFF
DNP Analog Input Point 96	OFF
DNP Analog Input Point 97	OFF
DNP Analog Input Point 98	OFF

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UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

DNP - IEC104 POINTS LISTS (continued from last page)

DNP Analog Input Point 99	OFF
DNP Analog Input Point 100	OFF
DNP Analog Input Point 101	OFF
DNP Analog Input Point 102	OFF
DNP Analog Input Point 103	OFF
DNP Analog Input Point 104	OFF
DNP Analog Input Point 105	OFF
DNP Analog Input Point 106	OFF
DNP Analog Input Point 107	OFF
DNP Analog Input Point 108	OFF
DNP Analog Input Point 109	OFF
DNP Analog Input Point 110	OFF
DNP Analog Input Point 111	OFF
DNP Analog Input Point 112	OFF
DNP Analog Input Point 113	OFF
DNP Analog Input Point 114	OFF
DNP Analog Input Point 115	OFF
DNP Analog Input Point 116	OFF
DNP Analog Input Point 117	OFF
DNP Analog Input Point 118	OFF
DNP Analog Input Point 119	OFF
DNP Analog Input Point 120	OFF
DNP Analog Input Point 121	OFF
DNP Analog Input Point 122	OFF
DNP Analog Input Point 123	OFF
DNP Analog Input Point 124	OFF
DNP Analog Input Point 125	OFF
DNP Analog Input Point 126	OFF
DNP Analog Input Point 127	OFF
DNP Analog Input Point 128	OFF
DNP Analog Input Point 129	OFF
DNP Analog Input Point 130	OFF
DNP Analog Input Point 131	OFF
DNP Analog Input Point 132	OFF
DNP Analog Input Point 133	OFF
DNP Analog Input Point 134	OFF
DNP Analog Input Point 135	OFF
DNP Analog Input Point 136	OFF
DNP Analog Input Point 137	OFF
DNP Analog Input Point 138	OFF
DNP Analog Input Point 139	OFF
DNP Analog Input Point 140	OFF
DNP Analog Input Point 141	OFF
DNP Analog Input Point 142	OFF
DNP Analog Input Point 143	OFF
DNP Analog Input Point 144	OFF
DNP Analog Input Point 145	OFF
DNP Analog Input Point 146	OFF
DNP Analog Input Point 147	OFF
DNP Analog Input Point 148	OFF
DNP Analog Input Point 149	OFF
DNP Analog Input Point 150	OFF
DNP Analog Input Point 151	OFF
DNP Analog Input Point 152	OFF
DNP Analog Input Point 153	OFF
DNP Analog Input Point 154	OFF
DNP Analog Input Point 155	OFF
DNP Analog Input Point 156	OFF
DNP Analog Input Point 157	OFF
DNP Analog Input Point 158	OFF
DNP Analog Input Point 159	OFF
DNP Analog Input Point 160	OFF
DNP Analog Input Point 161	OFF
DNP Analog Input Point 162	OFF
DNP Analog Input Point 163	OFF

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SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

DNP - IEC104 POINTS LISTS (continued from last page)

DNP Analog Input Point 164	OFF
DNP Analog Input Point 165	OFF
DNP Analog Input Point 166	OFF
DNP Analog Input Point 167	OFF
DNP Analog Input Point 168	OFF
DNP Analog Input Point 169	OFF
DNP Analog Input Point 170	OFF
DNP Analog Input Point 171	OFF
DNP Analog Input Point 172	OFF
DNP Analog Input Point 173	OFF
DNP Analog Input Point 174	OFF
DNP Analog Input Point 175	OFF
DNP Analog Input Point 176	OFF
DNP Analog Input Point 177	OFF
DNP Analog Input Point 178	OFF
DNP Analog Input Point 179	OFF
DNP Analog Input Point 180	OFF
DNP Analog Input Point 181	OFF
DNP Analog Input Point 182	OFF
DNP Analog Input Point 183	OFF
DNP Analog Input Point 184	OFF
DNP Analog Input Point 185	OFF
DNP Analog Input Point 186	OFF
DNP Analog Input Point 187	OFF
DNP Analog Input Point 188	OFF
DNP Analog Input Point 189	OFF
DNP Analog Input Point 190	OFF
DNP Analog Input Point 191	OFF
DNP Analog Input Point 192	OFF
DNP Analog Input Point 193	OFF
DNP Analog Input Point 194	OFF
DNP Analog Input Point 195	OFF
DNP Analog Input Point 196	OFF
DNP Analog Input Point 197	OFF
DNP Analog Input Point 198	OFF
DNP Analog Input Point 199	OFF
DNP Analog Input Point 200	OFF
DNP Analog Input Point 201	OFF
DNP Analog Input Point 202	OFF
DNP Analog Input Point 203	OFF
DNP Analog Input Point 204	OFF
DNP Analog Input Point 205	OFF
DNP Analog Input Point 206	OFF
DNP Analog Input Point 207	OFF
DNP Analog Input Point 208	OFF
DNP Analog Input Point 209	OFF
DNP Analog Input Point 210	OFF
DNP Analog Input Point 211	OFF
DNP Analog Input Point 212	OFF
DNP Analog Input Point 213	OFF
DNP Analog Input Point 214	OFF
DNP Analog Input Point 215	OFF
DNP Analog Input Point 216	OFF
DNP Analog Input Point 217	OFF
DNP Analog Input Point 218	OFF
DNP Analog Input Point 219	OFF
DNP Analog Input Point 220	OFF
DNP Analog Input Point 221	OFF
DNP Analog Input Point 222	OFF
DNP Analog Input Point 223	OFF
DNP Analog Input Point 224	OFF
DNP Analog Input Point 225	OFF
DNP Analog Input Point 226	OFF
DNP Analog Input Point 227	OFF
DNP Analog Input Point 228	OFF

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DESCRIPTION: (NONE)
TEXT COLOR

DNP - IEC104 POINTS LISTS (continued from last page)

DNP Analog Input Point 229	OFF
DNP Analog Input Point 230	OFF
DNP Analog Input Point 231	OFF
DNP Analog Input Point 232	OFF
DNP Analog Input Point 233	OFF
DNP Analog Input Point 234	OFF
DNP Analog Input Point 235	OFF
DNP Analog Input Point 236	OFF
DNP Analog Input Point 237	OFF
DNP Analog Input Point 238	OFF
DNP Analog Input Point 239	OFF
DNP Analog Input Point 240	OFF
DNP Analog Input Point 241	OFF
DNP Analog Input Point 242	OFF
DNP Analog Input Point 243	OFF
DNP Analog Input Point 244	OFF
DNP Analog Input Point 245	OFF
DNP Analog Input Point 246	OFF
DNP Analog Input Point 247	OFF
DNP Analog Input Point 248	OFF
DNP Analog Input Point 249	OFF
DNP Analog Input Point 250	OFF
DNP Analog Input Point 251	OFF
DNP Analog Input Point 252	OFF
DNP Analog Input Point 253	OFF
DNP Analog Input Point 254	OFF
DNP Analog Input Point 255	OFF

IEC 61850
GSSE / GOOSE CONFIGURATION
TRANSMISSION

GENERAL

Default GSSE/GOOSE Update Time	60 s

GSSE

Function	Enabled
ID	GSSEOut
Destination MAC	00 00 00 00 00 00

FIXED GOOSE

Function	Disabled
ID	GOOSEOut
Destination MAC	00 00 00 00 00 00
VLAN Priority	4
VLAN ID	0
ETYPE APPID	0

TX CONFIGURABLE GOOSE

GOOSEOut 1 Function	Enabled
GOOSEOut 1 ID	GOOSEOut_1
GOOSEOut 1 Destination MAC	00 00 00 00 00 00
GOOSEOut 1 VLAN Priority	4
GOOSEOut 1 VLAN ID	0
GOOSEOut 1 ETYPE APPID	0
GOOSEOut 1 ConfRev	1
GOOSEOut 1 Retransmission Curve	Relaxed
GOOSEOut 1 Dataset Item 1	None
GOOSEOut 1 Dataset Item 2	None
GOOSEOut 1 Dataset Item 3	None
GOOSEOut 1 Dataset Item 4	None
GOOSEOut 1 Dataset Item 5	None
GOOSEOut 1 Dataset Item 6	None
GOOSEOut 1 Dataset Item 7	None
GOOSEOut 1 Dataset Item 8	None
GOOSEOut 1 Dataset Item 9	None

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FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

TX CONFIGURABLE GOOSE (continued from last page)

GOOSEOut 1 Dataset Item 10	None
GOOSEOut 1 Dataset Item 11	None
GOOSEOut 1 Dataset Item 12	None
GOOSEOut 1 Dataset Item 13	None
GOOSEOut 1 Dataset Item 14	None
GOOSEOut 1 Dataset Item 15	None
GOOSEOut 1 Dataset Item 16	None
GOOSEOut 1 Dataset Item 17	None
GOOSEOut 1 Dataset Item 18	None
GOOSEOut 1 Dataset Item 19	None
GOOSEOut 1 Dataset Item 20	None
GOOSEOut 1 Dataset Item 21	None
GOOSEOut 1 Dataset Item 22	None
GOOSEOut 1 Dataset Item 23	None
GOOSEOut 1 Dataset Item 24	None
GOOSEOut 1 Dataset Item 25	None
GOOSEOut 1 Dataset Item 26	None
GOOSEOut 1 Dataset Item 27	None
GOOSEOut 1 Dataset Item 28	None
GOOSEOut 1 Dataset Item 29	None
GOOSEOut 1 Dataset Item 30	None
GOOSEOut 1 Dataset Item 31	None
GOOSEOut 1 Dataset Item 32	None
GOOSEOut 1 Dataset Item 33	None
GOOSEOut 1 Dataset Item 34	None
GOOSEOut 1 Dataset Item 35	None
GOOSEOut 1 Dataset Item 36	None
GOOSEOut 1 Dataset Item 37	None
GOOSEOut 1 Dataset Item 38	None
GOOSEOut 1 Dataset Item 39	None
GOOSEOut 1 Dataset Item 40	None
GOOSEOut 1 Dataset Item 41	None
GOOSEOut 1 Dataset Item 42	None
GOOSEOut 1 Dataset Item 43	None
GOOSEOut 1 Dataset Item 44	None
GOOSEOut 1 Dataset Item 45	None
GOOSEOut 1 Dataset Item 46	None
GOOSEOut 1 Dataset Item 47	None
GOOSEOut 1 Dataset Item 48	None
GOOSEOut 1 Dataset Item 49	None
GOOSEOut 1 Dataset Item 50	None
GOOSEOut 1 Dataset Item 51	None
GOOSEOut 1 Dataset Item 52	None
GOOSEOut 1 Dataset Item 53	None
GOOSEOut 1 Dataset Item 54	None
GOOSEOut 1 Dataset Item 55	None
GOOSEOut 1 Dataset Item 56	None
GOOSEOut 1 Dataset Item 57	None
GOOSEOut 1 Dataset Item 58	None
GOOSEOut 1 Dataset Item 59	None
GOOSEOut 1 Dataset Item 60	None
GOOSEOut 1 Dataset Item 61	None
GOOSEOut 1 Dataset Item 62	None
GOOSEOut 1 Dataset Item 63	None
GOOSEOut 1 Dataset Item 64	None
GOOSEOut 2 Function	Enabled
GOOSEOut 2 ID	GOOSEOut_2
GOOSEOut 2 Destination MAC	00 00 00 00 00 00
GOOSEOut 2 VLAN Priority	4
GOOSEOut 2 VLAN ID	0
GOOSEOut 2 ETYPE APPID	0
GOOSEOut 2 ConfRev	1
GOOSEOut 2 Retransmission Curve	Relaxed
GOOSEOut 2 Dataset Item 1	None
GOOSEOut 2 Dataset Item 2	None

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

TX CONFIGURABLE GOOSE (continued from last page)

GOOSEOut 2 Dataset Item 3	None
GOOSEOut 2 Dataset Item 4	None
GOOSEOut 2 Dataset Item 5	None
GOOSEOut 2 Dataset Item 6	None
GOOSEOut 2 Dataset Item 7	None
GOOSEOut 2 Dataset Item 8	None
GOOSEOut 2 Dataset Item 9	None
GOOSEOut 2 Dataset Item 10	None
GOOSEOut 2 Dataset Item 11	None
GOOSEOut 2 Dataset Item 12	None
GOOSEOut 2 Dataset Item 13	None
GOOSEOut 2 Dataset Item 14	None
GOOSEOut 2 Dataset Item 15	None
GOOSEOut 2 Dataset Item 16	None
GOOSEOut 2 Dataset Item 17	None
GOOSEOut 2 Dataset Item 18	None
GOOSEOut 2 Dataset Item 19	None
GOOSEOut 2 Dataset Item 20	None
GOOSEOut 2 Dataset Item 21	None
GOOSEOut 2 Dataset Item 22	None
GOOSEOut 2 Dataset Item 23	None
GOOSEOut 2 Dataset Item 24	None
GOOSEOut 2 Dataset Item 25	None
GOOSEOut 2 Dataset Item 26	None
GOOSEOut 2 Dataset Item 27	None
GOOSEOut 2 Dataset Item 28	None
GOOSEOut 2 Dataset Item 29	None
GOOSEOut 2 Dataset Item 30	None
GOOSEOut 2 Dataset Item 31	None
GOOSEOut 2 Dataset Item 32	None
GOOSEOut 2 Dataset Item 33	None
GOOSEOut 2 Dataset Item 34	None
GOOSEOut 2 Dataset Item 35	None
GOOSEOut 2 Dataset Item 36	None
GOOSEOut 2 Dataset Item 37	None
GOOSEOut 2 Dataset Item 38	None
GOOSEOut 2 Dataset Item 39	None
GOOSEOut 2 Dataset Item 40	None
GOOSEOut 2 Dataset Item 41	None
GOOSEOut 2 Dataset Item 42	None
GOOSEOut 2 Dataset Item 43	None
GOOSEOut 2 Dataset Item 44	None
GOOSEOut 2 Dataset Item 45	None
GOOSEOut 2 Dataset Item 46	None
GOOSEOut 2 Dataset Item 47	None
GOOSEOut 2 Dataset Item 48	None
GOOSEOut 2 Dataset Item 49	None
GOOSEOut 2 Dataset Item 50	None
GOOSEOut 2 Dataset Item 51	None
GOOSEOut 2 Dataset Item 52	None
GOOSEOut 2 Dataset Item 53	None
GOOSEOut 2 Dataset Item 54	None
GOOSEOut 2 Dataset Item 55	None
GOOSEOut 2 Dataset Item 56	None
GOOSEOut 2 Dataset Item 57	None
GOOSEOut 2 Dataset Item 58	None
GOOSEOut 2 Dataset Item 59	None
GOOSEOut 2 Dataset Item 60	None
GOOSEOut 2 Dataset Item 61	None
GOOSEOut 2 Dataset Item 62	None
GOOSEOut 2 Dataset Item 63	None
GOOSEOut 2 Dataset Item 64	None
GOOSEOut 3 Function	Enabled
GOOSEOut 3 ID	GOOSEOut_3
GOOSEOut 3 Destination MAC	00 00 00 00 00 00

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

TX CONFIGURABLE GOOSE (continued from last page)

GOOSEOut 3 VLAN Priority	4
GOOSEOut 3 VLAN ID	0
GOOSEOut 3 ETYPE APPID	0
GOOSEOut 3 ConfRev	1
GOOSEOut 3 Retransmission Curve	Relaxed
GOOSEOut 3 Dataset Item 1	None
GOOSEOut 3 Dataset Item 2	None
GOOSEOut 3 Dataset Item 3	None
GOOSEOut 3 Dataset Item 4	None
GOOSEOut 3 Dataset Item 5	None
GOOSEOut 3 Dataset Item 6	None
GOOSEOut 3 Dataset Item 7	None
GOOSEOut 3 Dataset Item 8	None
GOOSEOut 3 Dataset Item 9	None
GOOSEOut 3 Dataset Item 10	None
GOOSEOut 3 Dataset Item 11	None
GOOSEOut 3 Dataset Item 12	None
GOOSEOut 3 Dataset Item 13	None
GOOSEOut 3 Dataset Item 14	None
GOOSEOut 3 Dataset Item 15	None
GOOSEOut 3 Dataset Item 16	None
GOOSEOut 3 Dataset Item 17	None
GOOSEOut 3 Dataset Item 18	None
GOOSEOut 3 Dataset Item 19	None
GOOSEOut 3 Dataset Item 20	None
GOOSEOut 3 Dataset Item 21	None
GOOSEOut 3 Dataset Item 22	None
GOOSEOut 3 Dataset Item 23	None
GOOSEOut 3 Dataset Item 24	None
GOOSEOut 3 Dataset Item 25	None
GOOSEOut 3 Dataset Item 26	None
GOOSEOut 3 Dataset Item 27	None
GOOSEOut 3 Dataset Item 28	None
GOOSEOut 3 Dataset Item 29	None
GOOSEOut 3 Dataset Item 30	None
GOOSEOut 3 Dataset Item 31	None
GOOSEOut 3 Dataset Item 32	None
GOOSEOut 3 Dataset Item 33	None
GOOSEOut 3 Dataset Item 34	None
GOOSEOut 3 Dataset Item 35	None
GOOSEOut 3 Dataset Item 36	None
GOOSEOut 3 Dataset Item 37	None
GOOSEOut 3 Dataset Item 38	None
GOOSEOut 3 Dataset Item 39	None
GOOSEOut 3 Dataset Item 40	None
GOOSEOut 3 Dataset Item 41	None
GOOSEOut 3 Dataset Item 42	None
GOOSEOut 3 Dataset Item 43	None
GOOSEOut 3 Dataset Item 44	None
GOOSEOut 3 Dataset Item 45	None
GOOSEOut 3 Dataset Item 46	None
GOOSEOut 3 Dataset Item 47	None
GOOSEOut 3 Dataset Item 48	None
GOOSEOut 3 Dataset Item 49	None
GOOSEOut 3 Dataset Item 50	None
GOOSEOut 3 Dataset Item 51	None
GOOSEOut 3 Dataset Item 52	None
GOOSEOut 3 Dataset Item 53	None
GOOSEOut 3 Dataset Item 54	None
GOOSEOut 3 Dataset Item 55	None
GOOSEOut 3 Dataset Item 56	None
GOOSEOut 3 Dataset Item 57	None
GOOSEOut 3 Dataset Item 58	None
GOOSEOut 3 Dataset Item 59	None
GOOSEOut 3 Dataset Item 60	None

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

TX CONFIGURABLE GOOSE (continued from last page)

GOOSEOut 3 Dataset Item 61	None
GOOSEOut 3 Dataset Item 62	None
GOOSEOut 3 Dataset Item 63	None
GOOSEOut 3 Dataset Item 64	None
GOOSEOut 4 Function	Enabled
GOOSEOut 4 ID	GOOSEOut_4
GOOSEOut 4 Destination MAC	00 00 00 00 00 00
GOOSEOut 4 VLAN Priority	4
GOOSEOut 4 VLAN ID	0
GOOSEOut 4 ETYPE APPID	0
GOOSEOut 4 ConfRev	1
GOOSEOut 4 Retransmission Curve	Relaxed
GOOSEOut 4 Dataset Item 1	None
GOOSEOut 4 Dataset Item 2	None
GOOSEOut 4 Dataset Item 3	None
GOOSEOut 4 Dataset Item 4	None
GOOSEOut 4 Dataset Item 5	None
GOOSEOut 4 Dataset Item 6	None
GOOSEOut 4 Dataset Item 7	None
GOOSEOut 4 Dataset Item 8	None
GOOSEOut 4 Dataset Item 9	None
GOOSEOut 4 Dataset Item 10	None
GOOSEOut 4 Dataset Item 11	None
GOOSEOut 4 Dataset Item 12	None
GOOSEOut 4 Dataset Item 13	None
GOOSEOut 4 Dataset Item 14	None
GOOSEOut 4 Dataset Item 15	None
GOOSEOut 4 Dataset Item 16	None
GOOSEOut 4 Dataset Item 17	None
GOOSEOut 4 Dataset Item 18	None
GOOSEOut 4 Dataset Item 19	None
GOOSEOut 4 Dataset Item 20	None
GOOSEOut 4 Dataset Item 21	None
GOOSEOut 4 Dataset Item 22	None
GOOSEOut 4 Dataset Item 23	None
GOOSEOut 4 Dataset Item 24	None
GOOSEOut 4 Dataset Item 25	None
GOOSEOut 4 Dataset Item 26	None
GOOSEOut 4 Dataset Item 27	None
GOOSEOut 4 Dataset Item 28	None
GOOSEOut 4 Dataset Item 29	None
GOOSEOut 4 Dataset Item 30	None
GOOSEOut 4 Dataset Item 31	None
GOOSEOut 4 Dataset Item 32	None
GOOSEOut 4 Dataset Item 33	None
GOOSEOut 4 Dataset Item 34	None
GOOSEOut 4 Dataset Item 35	None
GOOSEOut 4 Dataset Item 36	None
GOOSEOut 4 Dataset Item 37	None
GOOSEOut 4 Dataset Item 38	None
GOOSEOut 4 Dataset Item 39	None
GOOSEOut 4 Dataset Item 40	None
GOOSEOut 4 Dataset Item 41	None
GOOSEOut 4 Dataset Item 42	None
GOOSEOut 4 Dataset Item 43	None
GOOSEOut 4 Dataset Item 44	None
GOOSEOut 4 Dataset Item 45	None
GOOSEOut 4 Dataset Item 46	None
GOOSEOut 4 Dataset Item 47	None
GOOSEOut 4 Dataset Item 48	None
GOOSEOut 4 Dataset Item 49	None
GOOSEOut 4 Dataset Item 50	None
GOOSEOut 4 Dataset Item 51	None
GOOSEOut 4 Dataset Item 52	None
GOOSEOut 4 Dataset Item 53	None

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

TX CONFIGURABLE GOOSE (continued from last page)

GOOSEOut 4 Dataset Item 54	None
GOOSEOut 4 Dataset Item 55	None
GOOSEOut 4 Dataset Item 56	None
GOOSEOut 4 Dataset Item 57	None
GOOSEOut 4 Dataset Item 58	None
GOOSEOut 4 Dataset Item 59	None
GOOSEOut 4 Dataset Item 60	None
GOOSEOut 4 Dataset Item 61	None
GOOSEOut 4 Dataset Item 62	None
GOOSEOut 4 Dataset Item 63	None
GOOSEOut 4 Dataset Item 64	None
GOOSEOut 5 Function	Enabled
GOOSEOut 5 ID	GOOSEOut_5
GOOSEOut 5 Destination MAC	00 00 00 00 00 00
GOOSEOut 5 VLAN Priority	4
GOOSEOut 5 VLAN ID	0
GOOSEOut 5 ETYPE APPID	0
GOOSEOut 5 ConfRev	1
GOOSEOut 5 Retransmission Curve	Relaxed
GOOSEOut 5 Dataset Item 1	None
GOOSEOut 5 Dataset Item 2	None
GOOSEOut 5 Dataset Item 3	None
GOOSEOut 5 Dataset Item 4	None
GOOSEOut 5 Dataset Item 5	None
GOOSEOut 5 Dataset Item 6	None
GOOSEOut 5 Dataset Item 7	None
GOOSEOut 5 Dataset Item 8	None
GOOSEOut 5 Dataset Item 9	None
GOOSEOut 5 Dataset Item 10	None
GOOSEOut 5 Dataset Item 11	None
GOOSEOut 5 Dataset Item 12	None
GOOSEOut 5 Dataset Item 13	None
GOOSEOut 5 Dataset Item 14	None
GOOSEOut 5 Dataset Item 15	None
GOOSEOut 5 Dataset Item 16	None
GOOSEOut 5 Dataset Item 17	None
GOOSEOut 5 Dataset Item 18	None
GOOSEOut 5 Dataset Item 19	None
GOOSEOut 5 Dataset Item 20	None
GOOSEOut 5 Dataset Item 21	None
GOOSEOut 5 Dataset Item 22	None
GOOSEOut 5 Dataset Item 23	None
GOOSEOut 5 Dataset Item 24	None
GOOSEOut 5 Dataset Item 25	None
GOOSEOut 5 Dataset Item 26	None
GOOSEOut 5 Dataset Item 27	None
GOOSEOut 5 Dataset Item 28	None
GOOSEOut 5 Dataset Item 29	None
GOOSEOut 5 Dataset Item 30	None
GOOSEOut 5 Dataset Item 31	None
GOOSEOut 5 Dataset Item 32	None
GOOSEOut 5 Dataset Item 33	None
GOOSEOut 5 Dataset Item 34	None
GOOSEOut 5 Dataset Item 35	None
GOOSEOut 5 Dataset Item 36	None
GOOSEOut 5 Dataset Item 37	None
GOOSEOut 5 Dataset Item 38	None
GOOSEOut 5 Dataset Item 39	None
GOOSEOut 5 Dataset Item 40	None
GOOSEOut 5 Dataset Item 41	None
GOOSEOut 5 Dataset Item 42	None
GOOSEOut 5 Dataset Item 43	None
GOOSEOut 5 Dataset Item 44	None
GOOSEOut 5 Dataset Item 45	None
GOOSEOut 5 Dataset Item 46	None

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

TX CONFIGURABLE GOOSE (continued from last page)

GOOSEOut 5 Dataset Item 47	None
GOOSEOut 5 Dataset Item 48	None
GOOSEOut 5 Dataset Item 49	None
GOOSEOut 5 Dataset Item 50	None
GOOSEOut 5 Dataset Item 51	None
GOOSEOut 5 Dataset Item 52	None
GOOSEOut 5 Dataset Item 53	None
GOOSEOut 5 Dataset Item 54	None
GOOSEOut 5 Dataset Item 55	None
GOOSEOut 5 Dataset Item 56	None
GOOSEOut 5 Dataset Item 57	None
GOOSEOut 5 Dataset Item 58	None
GOOSEOut 5 Dataset Item 59	None
GOOSEOut 5 Dataset Item 60	None
GOOSEOut 5 Dataset Item 61	None
GOOSEOut 5 Dataset Item 62	None
GOOSEOut 5 Dataset Item 63	None
GOOSEOut 5 Dataset Item 64	None
GOOSEOut 6 Function	Enabled
GOOSEOut 6 ID	GOOSEOut_6
GOOSEOut 6 Destination MAC	00 00 00 00 00 00
GOOSEOut 6 VLAN Priority	4
GOOSEOut 6 VLAN ID	0
GOOSEOut 6 ETYPE APPID	0
GOOSEOut 6 ConfRev	1
GOOSEOut 6 Retransmission Curve	Relaxed
GOOSEOut 6 Dataset Item 1	None
GOOSEOut 6 Dataset Item 2	None
GOOSEOut 6 Dataset Item 3	None
GOOSEOut 6 Dataset Item 4	None
GOOSEOut 6 Dataset Item 5	None
GOOSEOut 6 Dataset Item 6	None
GOOSEOut 6 Dataset Item 7	None
GOOSEOut 6 Dataset Item 8	None
GOOSEOut 6 Dataset Item 9	None
GOOSEOut 6 Dataset Item 10	None
GOOSEOut 6 Dataset Item 11	None
GOOSEOut 6 Dataset Item 12	None
GOOSEOut 6 Dataset Item 13	None
GOOSEOut 6 Dataset Item 14	None
GOOSEOut 6 Dataset Item 15	None
GOOSEOut 6 Dataset Item 16	None
GOOSEOut 6 Dataset Item 17	None
GOOSEOut 6 Dataset Item 18	None
GOOSEOut 6 Dataset Item 19	None
GOOSEOut 6 Dataset Item 20	None
GOOSEOut 6 Dataset Item 21	None
GOOSEOut 6 Dataset Item 22	None
GOOSEOut 6 Dataset Item 23	None
GOOSEOut 6 Dataset Item 24	None
GOOSEOut 6 Dataset Item 25	None
GOOSEOut 6 Dataset Item 26	None
GOOSEOut 6 Dataset Item 27	None
GOOSEOut 6 Dataset Item 28	None
GOOSEOut 6 Dataset Item 29	None
GOOSEOut 6 Dataset Item 30	None
GOOSEOut 6 Dataset Item 31	None
GOOSEOut 6 Dataset Item 32	None
GOOSEOut 6 Dataset Item 33	None
GOOSEOut 6 Dataset Item 34	None
GOOSEOut 6 Dataset Item 35	None
GOOSEOut 6 Dataset Item 36	None
GOOSEOut 6 Dataset Item 37	None
GOOSEOut 6 Dataset Item 38	None
GOOSEOut 6 Dataset Item 39	None

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

TX CONFIGURABLE GOOSE (continued from last page)

GOOSEOut 6 Dataset Item 40	None
GOOSEOut 6 Dataset Item 41	None
GOOSEOut 6 Dataset Item 42	None
GOOSEOut 6 Dataset Item 43	None
GOOSEOut 6 Dataset Item 44	None
GOOSEOut 6 Dataset Item 45	None
GOOSEOut 6 Dataset Item 46	None
GOOSEOut 6 Dataset Item 47	None
GOOSEOut 6 Dataset Item 48	None
GOOSEOut 6 Dataset Item 49	None
GOOSEOut 6 Dataset Item 50	None
GOOSEOut 6 Dataset Item 51	None
GOOSEOut 6 Dataset Item 52	None
GOOSEOut 6 Dataset Item 53	None
GOOSEOut 6 Dataset Item 54	None
GOOSEOut 6 Dataset Item 55	None
GOOSEOut 6 Dataset Item 56	None
GOOSEOut 6 Dataset Item 57	None
GOOSEOut 6 Dataset Item 58	None
GOOSEOut 6 Dataset Item 59	None
GOOSEOut 6 Dataset Item 60	None
GOOSEOut 6 Dataset Item 61	None
GOOSEOut 6 Dataset Item 62	None
GOOSEOut 6 Dataset Item 63	None
GOOSEOut 6 Dataset Item 64	None
GOOSEOut 7 Function	Enabled
GOOSEOut 7 ID	GOOSEOut_7
GOOSEOut 7 Destination MAC	00 00 00 00 00 00
GOOSEOut 7 VLAN Priority	4
GOOSEOut 7 VLAN ID	0
GOOSEOut 7 ETYPE APPID	0
GOOSEOut 7 ConfRev	1
GOOSEOut 7 Retransmission Curve	Relaxed
GOOSEOut 7 Dataset Item 1	None
GOOSEOut 7 Dataset Item 2	None
GOOSEOut 7 Dataset Item 3	None
GOOSEOut 7 Dataset Item 4	None
GOOSEOut 7 Dataset Item 5	None
GOOSEOut 7 Dataset Item 6	None
GOOSEOut 7 Dataset Item 7	None
GOOSEOut 7 Dataset Item 8	None
GOOSEOut 7 Dataset Item 9	None
GOOSEOut 7 Dataset Item 10	None
GOOSEOut 7 Dataset Item 11	None
GOOSEOut 7 Dataset Item 12	None
GOOSEOut 7 Dataset Item 13	None
GOOSEOut 7 Dataset Item 14	None
GOOSEOut 7 Dataset Item 15	None
GOOSEOut 7 Dataset Item 16	None
GOOSEOut 7 Dataset Item 17	None
GOOSEOut 7 Dataset Item 18	None
GOOSEOut 7 Dataset Item 19	None
GOOSEOut 7 Dataset Item 20	None
GOOSEOut 7 Dataset Item 21	None
GOOSEOut 7 Dataset Item 22	None
GOOSEOut 7 Dataset Item 23	None
GOOSEOut 7 Dataset Item 24	None
GOOSEOut 7 Dataset Item 25	None
GOOSEOut 7 Dataset Item 26	None
GOOSEOut 7 Dataset Item 27	None
GOOSEOut 7 Dataset Item 28	None
GOOSEOut 7 Dataset Item 29	None
GOOSEOut 7 Dataset Item 30	None
GOOSEOut 7 Dataset Item 31	None
GOOSEOut 7 Dataset Item 32	None

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

TX CONFIGURABLE GOOSE (continued from last page)

GOOSEOut 7 Dataset Item 33	None
GOOSEOut 7 Dataset Item 34	None
GOOSEOut 7 Dataset Item 35	None
GOOSEOut 7 Dataset Item 36	None
GOOSEOut 7 Dataset Item 37	None
GOOSEOut 7 Dataset Item 38	None
GOOSEOut 7 Dataset Item 39	None
GOOSEOut 7 Dataset Item 40	None
GOOSEOut 7 Dataset Item 41	None
GOOSEOut 7 Dataset Item 42	None
GOOSEOut 7 Dataset Item 43	None
GOOSEOut 7 Dataset Item 44	None
GOOSEOut 7 Dataset Item 45	None
GOOSEOut 7 Dataset Item 46	None
GOOSEOut 7 Dataset Item 47	None
GOOSEOut 7 Dataset Item 48	None
GOOSEOut 7 Dataset Item 49	None
GOOSEOut 7 Dataset Item 50	None
GOOSEOut 7 Dataset Item 51	None
GOOSEOut 7 Dataset Item 52	None
GOOSEOut 7 Dataset Item 53	None
GOOSEOut 7 Dataset Item 54	None
GOOSEOut 7 Dataset Item 55	None
GOOSEOut 7 Dataset Item 56	None
GOOSEOut 7 Dataset Item 57	None
GOOSEOut 7 Dataset Item 58	None
GOOSEOut 7 Dataset Item 59	None
GOOSEOut 7 Dataset Item 60	None
GOOSEOut 7 Dataset Item 61	None
GOOSEOut 7 Dataset Item 62	None
GOOSEOut 7 Dataset Item 63	None
GOOSEOut 7 Dataset Item 64	None
GOOSEOut 8 Function	Enabled
GOOSEOut 8 ID	GOOSEOut_8
GOOSEOut 8 Destination MAC	00 00 00 00 00 00
GOOSEOut 8 VLAN Priority	4
GOOSEOut 8 VLAN ID	0
GOOSEOut 8 ETYPE APPID	0
GOOSEOut 8 ConfRev	1
GOOSEOut 8 Retransmission Curve	Relaxed
GOOSEOut 8 Dataset Item 1	None
GOOSEOut 8 Dataset Item 2	None
GOOSEOut 8 Dataset Item 3	None
GOOSEOut 8 Dataset Item 4	None
GOOSEOut 8 Dataset Item 5	None
GOOSEOut 8 Dataset Item 6	None
GOOSEOut 8 Dataset Item 7	None
GOOSEOut 8 Dataset Item 8	None
GOOSEOut 8 Dataset Item 9	None
GOOSEOut 8 Dataset Item 10	None
GOOSEOut 8 Dataset Item 11	None
GOOSEOut 8 Dataset Item 12	None
GOOSEOut 8 Dataset Item 13	None
GOOSEOut 8 Dataset Item 14	None
GOOSEOut 8 Dataset Item 15	None
GOOSEOut 8 Dataset Item 16	None
GOOSEOut 8 Dataset Item 17	None
GOOSEOut 8 Dataset Item 18	None
GOOSEOut 8 Dataset Item 19	None
GOOSEOut 8 Dataset Item 20	None
GOOSEOut 8 Dataset Item 21	None
GOOSEOut 8 Dataset Item 22	None
GOOSEOut 8 Dataset Item 23	None
GOOSEOut 8 Dataset Item 24	None
GOOSEOut 8 Dataset Item 25	None

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

TX CONFIGURABLE GOOSE (continued from last page)

GOOSEOut 8 Dataset Item 26	None
GOOSEOut 8 Dataset Item 27	None
GOOSEOut 8 Dataset Item 28	None
GOOSEOut 8 Dataset Item 29	None
GOOSEOut 8 Dataset Item 30	None
GOOSEOut 8 Dataset Item 31	None
GOOSEOut 8 Dataset Item 32	None
GOOSEOut 8 Dataset Item 33	None
GOOSEOut 8 Dataset Item 34	None
GOOSEOut 8 Dataset Item 35	None
GOOSEOut 8 Dataset Item 36	None
GOOSEOut 8 Dataset Item 37	None
GOOSEOut 8 Dataset Item 38	None
GOOSEOut 8 Dataset Item 39	None
GOOSEOut 8 Dataset Item 40	None
GOOSEOut 8 Dataset Item 41	None
GOOSEOut 8 Dataset Item 42	None
GOOSEOut 8 Dataset Item 43	None
GOOSEOut 8 Dataset Item 44	None
GOOSEOut 8 Dataset Item 45	None
GOOSEOut 8 Dataset Item 46	None
GOOSEOut 8 Dataset Item 47	None
GOOSEOut 8 Dataset Item 48	None
GOOSEOut 8 Dataset Item 49	None
GOOSEOut 8 Dataset Item 50	None
GOOSEOut 8 Dataset Item 51	None
GOOSEOut 8 Dataset Item 52	None
GOOSEOut 8 Dataset Item 53	None
GOOSEOut 8 Dataset Item 54	None
GOOSEOut 8 Dataset Item 55	None
GOOSEOut 8 Dataset Item 56	None
GOOSEOut 8 Dataset Item 57	None
GOOSEOut 8 Dataset Item 58	None
GOOSEOut 8 Dataset Item 59	None
GOOSEOut 8 Dataset Item 60	None
GOOSEOut 8 Dataset Item 61	None
GOOSEOut 8 Dataset Item 62	None
GOOSEOut 8 Dataset Item 63	None
GOOSEOut 8 Dataset Item 64	None

RECEPTION

RX CONFIGURABLE GOOSE

GOOSEIn 1 Dataset Item 1	None
GOOSEIn 1 Dataset Item 2	None
GOOSEIn 1 Dataset Item 3	None
GOOSEIn 1 Dataset Item 4	None
GOOSEIn 1 Dataset Item 5	None
GOOSEIn 1 Dataset Item 6	None
GOOSEIn 1 Dataset Item 7	None
GOOSEIn 1 Dataset Item 8	None
GOOSEIn 1 Dataset Item 9	None
GOOSEIn 1 Dataset Item 10	None
GOOSEIn 1 Dataset Item 11	None
GOOSEIn 1 Dataset Item 12	None
GOOSEIn 1 Dataset Item 13	None
GOOSEIn 1 Dataset Item 14	None
GOOSEIn 1 Dataset Item 15	None
GOOSEIn 1 Dataset Item 16	None
GOOSEIn 1 Dataset Item 17	None
GOOSEIn 1 Dataset Item 18	None
GOOSEIn 1 Dataset Item 19	None
GOOSEIn 1 Dataset Item 20	None
GOOSEIn 1 Dataset Item 21	None
GOOSEIn 1 Dataset Item 22	None
GOOSEIn 1 Dataset Item 23	None

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

RX CONFIGURABLE GOOSE (continued from last page)

GOOSEIn 1 Dataset Item 24	None
GOOSEIn 1 Dataset Item 25	None
GOOSEIn 1 Dataset Item 26	None
GOOSEIn 1 Dataset Item 27	None
GOOSEIn 1 Dataset Item 28	None
GOOSEIn 1 Dataset Item 29	None
GOOSEIn 1 Dataset Item 30	None
GOOSEIn 1 Dataset Item 31	None
GOOSEIn 1 Dataset Item 32	None
GOOSEIn 2 Dataset Item 1	None
GOOSEIn 2 Dataset Item 2	None
GOOSEIn 2 Dataset Item 3	None
GOOSEIn 2 Dataset Item 4	None
GOOSEIn 2 Dataset Item 5	None
GOOSEIn 2 Dataset Item 6	None
GOOSEIn 2 Dataset Item 7	None
GOOSEIn 2 Dataset Item 8	None
GOOSEIn 2 Dataset Item 9	None
GOOSEIn 2 Dataset Item 10	None
GOOSEIn 2 Dataset Item 11	None
GOOSEIn 2 Dataset Item 12	None
GOOSEIn 2 Dataset Item 13	None
GOOSEIn 2 Dataset Item 14	None
GOOSEIn 2 Dataset Item 15	None
GOOSEIn 2 Dataset Item 16	None
GOOSEIn 2 Dataset Item 17	None
GOOSEIn 2 Dataset Item 18	None
GOOSEIn 2 Dataset Item 19	None
GOOSEIn 2 Dataset Item 20	None
GOOSEIn 2 Dataset Item 21	None
GOOSEIn 2 Dataset Item 22	None
GOOSEIn 2 Dataset Item 23	None
GOOSEIn 2 Dataset Item 24	None
GOOSEIn 2 Dataset Item 25	None
GOOSEIn 2 Dataset Item 26	None
GOOSEIn 2 Dataset Item 27	None
GOOSEIn 2 Dataset Item 28	None
GOOSEIn 2 Dataset Item 29	None
GOOSEIn 2 Dataset Item 30	None
GOOSEIn 2 Dataset Item 31	None
GOOSEIn 2 Dataset Item 32	None
GOOSEIn 3 Dataset Item 1	None
GOOSEIn 3 Dataset Item 2	None
GOOSEIn 3 Dataset Item 3	None
GOOSEIn 3 Dataset Item 4	None
GOOSEIn 3 Dataset Item 5	None
GOOSEIn 3 Dataset Item 6	None
GOOSEIn 3 Dataset Item 7	None
GOOSEIn 3 Dataset Item 8	None
GOOSEIn 3 Dataset Item 9	None
GOOSEIn 3 Dataset Item 10	None
GOOSEIn 3 Dataset Item 11	None
GOOSEIn 3 Dataset Item 12	None
GOOSEIn 3 Dataset Item 13	None
GOOSEIn 3 Dataset Item 14	None
GOOSEIn 3 Dataset Item 15	None
GOOSEIn 3 Dataset Item 16	None
GOOSEIn 3 Dataset Item 17	None
GOOSEIn 3 Dataset Item 18	None
GOOSEIn 3 Dataset Item 19	None
GOOSEIn 3 Dataset Item 20	None
GOOSEIn 3 Dataset Item 21	None
GOOSEIn 3 Dataset Item 22	None
GOOSEIn 3 Dataset Item 23	None
GOOSEIn 3 Dataset Item 24	None

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

RX CONFIGURABLE GOOSE (continued from last page)

GOOSEIn 3 Dataset Item 25	None
GOOSEIn 3 Dataset Item 26	None
GOOSEIn 3 Dataset Item 27	None
GOOSEIn 3 Dataset Item 28	None
GOOSEIn 3 Dataset Item 29	None
GOOSEIn 3 Dataset Item 30	None
GOOSEIn 3 Dataset Item 31	None
GOOSEIn 3 Dataset Item 32	None
GOOSEIn 4 Dataset Item 1	None
GOOSEIn 4 Dataset Item 2	None
GOOSEIn 4 Dataset Item 3	None
GOOSEIn 4 Dataset Item 4	None
GOOSEIn 4 Dataset Item 5	None
GOOSEIn 4 Dataset Item 6	None
GOOSEIn 4 Dataset Item 7	None
GOOSEIn 4 Dataset Item 8	None
GOOSEIn 4 Dataset Item 9	None
GOOSEIn 4 Dataset Item 10	None
GOOSEIn 4 Dataset Item 11	None
GOOSEIn 4 Dataset Item 12	None
GOOSEIn 4 Dataset Item 13	None
GOOSEIn 4 Dataset Item 14	None
GOOSEIn 4 Dataset Item 15	None
GOOSEIn 4 Dataset Item 16	None
GOOSEIn 4 Dataset Item 17	None
GOOSEIn 4 Dataset Item 18	None
GOOSEIn 4 Dataset Item 19	None
GOOSEIn 4 Dataset Item 20	None
GOOSEIn 4 Dataset Item 21	None
GOOSEIn 4 Dataset Item 22	None
GOOSEIn 4 Dataset Item 23	None
GOOSEIn 4 Dataset Item 24	None
GOOSEIn 4 Dataset Item 25	None
GOOSEIn 4 Dataset Item 26	None
GOOSEIn 4 Dataset Item 27	None
GOOSEIn 4 Dataset Item 28	None
GOOSEIn 4 Dataset Item 29	None
GOOSEIn 4 Dataset Item 30	None
GOOSEIn 4 Dataset Item 31	None
GOOSEIn 4 Dataset Item 32	None
GOOSEIn 5 Dataset Item 1	None
GOOSEIn 5 Dataset Item 2	None
GOOSEIn 5 Dataset Item 3	None
GOOSEIn 5 Dataset Item 4	None
GOOSEIn 5 Dataset Item 5	None
GOOSEIn 5 Dataset Item 6	None
GOOSEIn 5 Dataset Item 7	None
GOOSEIn 5 Dataset Item 8	None
GOOSEIn 5 Dataset Item 9	None
GOOSEIn 5 Dataset Item 10	None
GOOSEIn 5 Dataset Item 11	None
GOOSEIn 5 Dataset Item 12	None
GOOSEIn 5 Dataset Item 13	None
GOOSEIn 5 Dataset Item 14	None
GOOSEIn 5 Dataset Item 15	None
GOOSEIn 5 Dataset Item 16	None
GOOSEIn 5 Dataset Item 17	None
GOOSEIn 5 Dataset Item 18	None
GOOSEIn 5 Dataset Item 19	None
GOOSEIn 5 Dataset Item 20	None
GOOSEIn 5 Dataset Item 21	None
GOOSEIn 5 Dataset Item 22	None
GOOSEIn 5 Dataset Item 23	None
GOOSEIn 5 Dataset Item 24	None
GOOSEIn 5 Dataset Item 25	None

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

RX CONFIGURABLE GOOSE (continued from last page)

GOOSEIn 5 Dataset Item 26	None
GOOSEIn 5 Dataset Item 27	None
GOOSEIn 5 Dataset Item 28	None
GOOSEIn 5 Dataset Item 29	None
GOOSEIn 5 Dataset Item 30	None
GOOSEIn 5 Dataset Item 31	None
GOOSEIn 5 Dataset Item 32	None
GOOSEIn 6 Dataset Item 1	None
GOOSEIn 6 Dataset Item 2	None
GOOSEIn 6 Dataset Item 3	None
GOOSEIn 6 Dataset Item 4	None
GOOSEIn 6 Dataset Item 5	None
GOOSEIn 6 Dataset Item 6	None
GOOSEIn 6 Dataset Item 7	None
GOOSEIn 6 Dataset Item 8	None
GOOSEIn 6 Dataset Item 9	None
GOOSEIn 6 Dataset Item 10	None
GOOSEIn 6 Dataset Item 11	None
GOOSEIn 6 Dataset Item 12	None
GOOSEIn 6 Dataset Item 13	None
GOOSEIn 6 Dataset Item 14	None
GOOSEIn 6 Dataset Item 15	None
GOOSEIn 6 Dataset Item 16	None
GOOSEIn 6 Dataset Item 17	None
GOOSEIn 6 Dataset Item 18	None
GOOSEIn 6 Dataset Item 19	None
GOOSEIn 6 Dataset Item 20	None
GOOSEIn 6 Dataset Item 21	None
GOOSEIn 6 Dataset Item 22	None
GOOSEIn 6 Dataset Item 23	None
GOOSEIn 6 Dataset Item 24	None
GOOSEIn 6 Dataset Item 25	None
GOOSEIn 6 Dataset Item 26	None
GOOSEIn 6 Dataset Item 27	None
GOOSEIn 6 Dataset Item 28	None
GOOSEIn 6 Dataset Item 29	None
GOOSEIn 6 Dataset Item 30	None
GOOSEIn 6 Dataset Item 31	None
GOOSEIn 6 Dataset Item 32	None
GOOSEIn 7 Dataset Item 1	None
GOOSEIn 7 Dataset Item 2	None
GOOSEIn 7 Dataset Item 3	None
GOOSEIn 7 Dataset Item 4	None
GOOSEIn 7 Dataset Item 5	None
GOOSEIn 7 Dataset Item 6	None
GOOSEIn 7 Dataset Item 7	None
GOOSEIn 7 Dataset Item 8	None
GOOSEIn 7 Dataset Item 9	None
GOOSEIn 7 Dataset Item 10	None
GOOSEIn 7 Dataset Item 11	None
GOOSEIn 7 Dataset Item 12	None
GOOSEIn 7 Dataset Item 13	None
GOOSEIn 7 Dataset Item 14	None
GOOSEIn 7 Dataset Item 15	None
GOOSEIn 7 Dataset Item 16	None
GOOSEIn 7 Dataset Item 17	None
GOOSEIn 7 Dataset Item 18	None
GOOSEIn 7 Dataset Item 19	None
GOOSEIn 7 Dataset Item 20	None
GOOSEIn 7 Dataset Item 21	None
GOOSEIn 7 Dataset Item 22	None
GOOSEIn 7 Dataset Item 23	None
GOOSEIn 7 Dataset Item 24	None
GOOSEIn 7 Dataset Item 25	None
GOOSEIn 7 Dataset Item 26	None

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

RX CONFIGURABLE GOOSE (continued from last page)

GOOSEIn 7 Dataset Item 27	None
GOOSEIn 7 Dataset Item 28	None
GOOSEIn 7 Dataset Item 29	None
GOOSEIn 7 Dataset Item 30	None
GOOSEIn 7 Dataset Item 31	None
GOOSEIn 7 Dataset Item 32	None
GOOSEIn 8 Dataset Item 1	None
GOOSEIn 8 Dataset Item 2	None
GOOSEIn 8 Dataset Item 3	None
GOOSEIn 8 Dataset Item 4	None
GOOSEIn 8 Dataset Item 5	None
GOOSEIn 8 Dataset Item 6	None
GOOSEIn 8 Dataset Item 7	None
GOOSEIn 8 Dataset Item 8	None
GOOSEIn 8 Dataset Item 9	None
GOOSEIn 8 Dataset Item 10	None
GOOSEIn 8 Dataset Item 11	None
GOOSEIn 8 Dataset Item 12	None
GOOSEIn 8 Dataset Item 13	None
GOOSEIn 8 Dataset Item 14	None
GOOSEIn 8 Dataset Item 15	None
GOOSEIn 8 Dataset Item 16	None
GOOSEIn 8 Dataset Item 17	None
GOOSEIn 8 Dataset Item 18	None
GOOSEIn 8 Dataset Item 19	None
GOOSEIn 8 Dataset Item 20	None
GOOSEIn 8 Dataset Item 21	None
GOOSEIn 8 Dataset Item 22	None
GOOSEIn 8 Dataset Item 23	None
GOOSEIn 8 Dataset Item 24	None
GOOSEIn 8 Dataset Item 25	None
GOOSEIn 8 Dataset Item 26	None
GOOSEIn 8 Dataset Item 27	None
GOOSEIn 8 Dataset Item 28	None
GOOSEIn 8 Dataset Item 29	None
GOOSEIn 8 Dataset Item 30	None
GOOSEIn 8 Dataset Item 31	None
GOOSEIn 8 Dataset Item 32	None
GOOSEIn 9 Dataset Item 1	None
GOOSEIn 9 Dataset Item 2	None
GOOSEIn 9 Dataset Item 3	None
GOOSEIn 9 Dataset Item 4	None
GOOSEIn 9 Dataset Item 5	None
GOOSEIn 9 Dataset Item 6	None
GOOSEIn 9 Dataset Item 7	None
GOOSEIn 9 Dataset Item 8	None
GOOSEIn 9 Dataset Item 9	None
GOOSEIn 9 Dataset Item 10	None
GOOSEIn 9 Dataset Item 11	None
GOOSEIn 9 Dataset Item 12	None
GOOSEIn 9 Dataset Item 13	None
GOOSEIn 9 Dataset Item 14	None
GOOSEIn 9 Dataset Item 15	None
GOOSEIn 9 Dataset Item 16	None
GOOSEIn 9 Dataset Item 17	None
GOOSEIn 9 Dataset Item 18	None
GOOSEIn 9 Dataset Item 19	None
GOOSEIn 9 Dataset Item 20	None
GOOSEIn 9 Dataset Item 21	None
GOOSEIn 9 Dataset Item 22	None
GOOSEIn 9 Dataset Item 23	None
GOOSEIn 9 Dataset Item 24	None
GOOSEIn 9 Dataset Item 25	None
GOOSEIn 9 Dataset Item 26	None
GOOSEIn 9 Dataset Item 27	None

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

RX CONFIGURABLE GOOSE (continued from last page)

GOOSEIn 9 Dataset Item 28	None
GOOSEIn 9 Dataset Item 29	None
GOOSEIn 9 Dataset Item 30	None
GOOSEIn 9 Dataset Item 31	None
GOOSEIn 9 Dataset Item 32	None
GOOSEIn 10 Dataset Item 1	None
GOOSEIn 10 Dataset Item 2	None
GOOSEIn 10 Dataset Item 3	None
GOOSEIn 10 Dataset Item 4	None
GOOSEIn 10 Dataset Item 5	None
GOOSEIn 10 Dataset Item 6	None
GOOSEIn 10 Dataset Item 7	None
GOOSEIn 10 Dataset Item 8	None
GOOSEIn 10 Dataset Item 9	None
GOOSEIn 10 Dataset Item 10	None
GOOSEIn 10 Dataset Item 11	None
GOOSEIn 10 Dataset Item 12	None
GOOSEIn 10 Dataset Item 13	None
GOOSEIn 10 Dataset Item 14	None
GOOSEIn 10 Dataset Item 15	None
GOOSEIn 10 Dataset Item 16	None
GOOSEIn 10 Dataset Item 17	None
GOOSEIn 10 Dataset Item 18	None
GOOSEIn 10 Dataset Item 19	None
GOOSEIn 10 Dataset Item 20	None
GOOSEIn 10 Dataset Item 21	None
GOOSEIn 10 Dataset Item 22	None
GOOSEIn 10 Dataset Item 23	None
GOOSEIn 10 Dataset Item 24	None
GOOSEIn 10 Dataset Item 25	None
GOOSEIn 10 Dataset Item 26	None
GOOSEIn 10 Dataset Item 27	None
GOOSEIn 10 Dataset Item 28	None
GOOSEIn 10 Dataset Item 29	None
GOOSEIn 10 Dataset Item 30	None
GOOSEIn 10 Dataset Item 31	None
GOOSEIn 10 Dataset Item 32	None
GOOSEIn 11 Dataset Item 1	None
GOOSEIn 11 Dataset Item 2	None
GOOSEIn 11 Dataset Item 3	None
GOOSEIn 11 Dataset Item 4	None
GOOSEIn 11 Dataset Item 5	None
GOOSEIn 11 Dataset Item 6	None
GOOSEIn 11 Dataset Item 7	None
GOOSEIn 11 Dataset Item 8	None
GOOSEIn 11 Dataset Item 9	None
GOOSEIn 11 Dataset Item 10	None
GOOSEIn 11 Dataset Item 11	None
GOOSEIn 11 Dataset Item 12	None
GOOSEIn 11 Dataset Item 13	None
GOOSEIn 11 Dataset Item 14	None
GOOSEIn 11 Dataset Item 15	None
GOOSEIn 11 Dataset Item 16	None
GOOSEIn 11 Dataset Item 17	None
GOOSEIn 11 Dataset Item 18	None
GOOSEIn 11 Dataset Item 19	None
GOOSEIn 11 Dataset Item 20	None
GOOSEIn 11 Dataset Item 21	None
GOOSEIn 11 Dataset Item 22	None
GOOSEIn 11 Dataset Item 23	None
GOOSEIn 11 Dataset Item 24	None
GOOSEIn 11 Dataset Item 25	None
GOOSEIn 11 Dataset Item 26	None
GOOSEIn 11 Dataset Item 27	None
GOOSEIn 11 Dataset Item 28	None

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

RX CONFIGURABLE GOOSE (continued from last page)

GOOSEIn 11 Dataset Item 29	None
GOOSEIn 11 Dataset Item 30	None
GOOSEIn 11 Dataset Item 31	None
GOOSEIn 11 Dataset Item 32	None
GOOSEIn 12 Dataset Item 1	None
GOOSEIn 12 Dataset Item 2	None
GOOSEIn 12 Dataset Item 3	None
GOOSEIn 12 Dataset Item 4	None
GOOSEIn 12 Dataset Item 5	None
GOOSEIn 12 Dataset Item 6	None
GOOSEIn 12 Dataset Item 7	None
GOOSEIn 12 Dataset Item 8	None
GOOSEIn 12 Dataset Item 9	None
GOOSEIn 12 Dataset Item 10	None
GOOSEIn 12 Dataset Item 11	None
GOOSEIn 12 Dataset Item 12	None
GOOSEIn 12 Dataset Item 13	None
GOOSEIn 12 Dataset Item 14	None
GOOSEIn 12 Dataset Item 15	None
GOOSEIn 12 Dataset Item 16	None
GOOSEIn 12 Dataset Item 17	None
GOOSEIn 12 Dataset Item 18	None
GOOSEIn 12 Dataset Item 19	None
GOOSEIn 12 Dataset Item 20	None
GOOSEIn 12 Dataset Item 21	None
GOOSEIn 12 Dataset Item 22	None
GOOSEIn 12 Dataset Item 23	None
GOOSEIn 12 Dataset Item 24	None
GOOSEIn 12 Dataset Item 25	None
GOOSEIn 12 Dataset Item 26	None
GOOSEIn 12 Dataset Item 27	None
GOOSEIn 12 Dataset Item 28	None
GOOSEIn 12 Dataset Item 29	None
GOOSEIn 12 Dataset Item 30	None
GOOSEIn 12 Dataset Item 31	None
GOOSEIn 12 Dataset Item 32	None
GOOSEIn 13 Dataset Item 1	None
GOOSEIn 13 Dataset Item 2	None
GOOSEIn 13 Dataset Item 3	None
GOOSEIn 13 Dataset Item 4	None
GOOSEIn 13 Dataset Item 5	None
GOOSEIn 13 Dataset Item 6	None
GOOSEIn 13 Dataset Item 7	None
GOOSEIn 13 Dataset Item 8	None
GOOSEIn 13 Dataset Item 9	None
GOOSEIn 13 Dataset Item 10	None
GOOSEIn 13 Dataset Item 11	None
GOOSEIn 13 Dataset Item 12	None
GOOSEIn 13 Dataset Item 13	None
GOOSEIn 13 Dataset Item 14	None
GOOSEIn 13 Dataset Item 15	None
GOOSEIn 13 Dataset Item 16	None
GOOSEIn 13 Dataset Item 17	None
GOOSEIn 13 Dataset Item 18	None
GOOSEIn 13 Dataset Item 19	None
GOOSEIn 13 Dataset Item 20	None
GOOSEIn 13 Dataset Item 21	None
GOOSEIn 13 Dataset Item 22	None
GOOSEIn 13 Dataset Item 23	None
GOOSEIn 13 Dataset Item 24	None
GOOSEIn 13 Dataset Item 25	None
GOOSEIn 13 Dataset Item 26	None
GOOSEIn 13 Dataset Item 27	None
GOOSEIn 13 Dataset Item 28	None
GOOSEIn 13 Dataset Item 29	None

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

RX CONFIGURABLE GOOSE (continued from last page)

GOOSEIn 13 Dataset Item 30	None
GOOSEIn 13 Dataset Item 31	None
GOOSEIn 13 Dataset Item 32	None
GOOSEIn 14 Dataset Item 1	None
GOOSEIn 14 Dataset Item 2	None
GOOSEIn 14 Dataset Item 3	None
GOOSEIn 14 Dataset Item 4	None
GOOSEIn 14 Dataset Item 5	None
GOOSEIn 14 Dataset Item 6	None
GOOSEIn 14 Dataset Item 7	None
GOOSEIn 14 Dataset Item 8	None
GOOSEIn 14 Dataset Item 9	None
GOOSEIn 14 Dataset Item 10	None
GOOSEIn 14 Dataset Item 11	None
GOOSEIn 14 Dataset Item 12	None
GOOSEIn 14 Dataset Item 13	None
GOOSEIn 14 Dataset Item 14	None
GOOSEIn 14 Dataset Item 15	None
GOOSEIn 14 Dataset Item 16	None
GOOSEIn 14 Dataset Item 17	None
GOOSEIn 14 Dataset Item 18	None
GOOSEIn 14 Dataset Item 19	None
GOOSEIn 14 Dataset Item 20	None
GOOSEIn 14 Dataset Item 21	None
GOOSEIn 14 Dataset Item 22	None
GOOSEIn 14 Dataset Item 23	None
GOOSEIn 14 Dataset Item 24	None
GOOSEIn 14 Dataset Item 25	None
GOOSEIn 14 Dataset Item 26	None
GOOSEIn 14 Dataset Item 27	None
GOOSEIn 14 Dataset Item 28	None
GOOSEIn 14 Dataset Item 29	None
GOOSEIn 14 Dataset Item 30	None
GOOSEIn 14 Dataset Item 31	None
GOOSEIn 14 Dataset Item 32	None
GOOSEIn 15 Dataset Item 1	None
GOOSEIn 15 Dataset Item 2	None
GOOSEIn 15 Dataset Item 3	None
GOOSEIn 15 Dataset Item 4	None
GOOSEIn 15 Dataset Item 5	None
GOOSEIn 15 Dataset Item 6	None
GOOSEIn 15 Dataset Item 7	None
GOOSEIn 15 Dataset Item 8	None
GOOSEIn 15 Dataset Item 9	None
GOOSEIn 15 Dataset Item 10	None
GOOSEIn 15 Dataset Item 11	None
GOOSEIn 15 Dataset Item 12	None
GOOSEIn 15 Dataset Item 13	None
GOOSEIn 15 Dataset Item 14	None
GOOSEIn 15 Dataset Item 15	None
GOOSEIn 15 Dataset Item 16	None
GOOSEIn 15 Dataset Item 17	None
GOOSEIn 15 Dataset Item 18	None
GOOSEIn 15 Dataset Item 19	None
GOOSEIn 15 Dataset Item 20	None
GOOSEIn 15 Dataset Item 21	None
GOOSEIn 15 Dataset Item 22	None
GOOSEIn 15 Dataset Item 23	None
GOOSEIn 15 Dataset Item 24	None
GOOSEIn 15 Dataset Item 25	None
GOOSEIn 15 Dataset Item 26	None
GOOSEIn 15 Dataset Item 27	None
GOOSEIn 15 Dataset Item 28	None
GOOSEIn 15 Dataset Item 29	None
GOOSEIn 15 Dataset Item 30	None

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

RX CONFIGURABLE GOOSE (continued from last page)

GOOSEIn 15 Dataset Item 31	None
GOOSEIn 15 Dataset Item 32	None
GOOSEIn 16 Dataset Item 1	None
GOOSEIn 16 Dataset Item 2	None
GOOSEIn 16 Dataset Item 3	None
GOOSEIn 16 Dataset Item 4	None
GOOSEIn 16 Dataset Item 5	None
GOOSEIn 16 Dataset Item 6	None
GOOSEIn 16 Dataset Item 7	None
GOOSEIn 16 Dataset Item 8	None
GOOSEIn 16 Dataset Item 9	None
GOOSEIn 16 Dataset Item 10	None
GOOSEIn 16 Dataset Item 11	None
GOOSEIn 16 Dataset Item 12	None
GOOSEIn 16 Dataset Item 13	None
GOOSEIn 16 Dataset Item 14	None
GOOSEIn 16 Dataset Item 15	None
GOOSEIn 16 Dataset Item 16	None
GOOSEIn 16 Dataset Item 17	None
GOOSEIn 16 Dataset Item 18	None
GOOSEIn 16 Dataset Item 19	None
GOOSEIn 16 Dataset Item 20	None
GOOSEIn 16 Dataset Item 21	None
GOOSEIn 16 Dataset Item 22	None
GOOSEIn 16 Dataset Item 23	None
GOOSEIn 16 Dataset Item 24	None
GOOSEIn 16 Dataset Item 25	None
GOOSEIn 16 Dataset Item 26	None
GOOSEIn 16 Dataset Item 27	None
GOOSEIn 16 Dataset Item 28	None
GOOSEIn 16 Dataset Item 29	None
GOOSEIn 16 Dataset Item 30	None
GOOSEIn 16 Dataset Item 31	None
GOOSEIn 16 Dataset Item 32	None

SERVER CONFIGURATION

IEDName	IEDName
Logical Device Instance	LDInst
MMS TCP Port Number	102
Include NON-IEC Data	Disabled
Server Scanning	Disabled
LPHD DC PhyNam location	Location

LOGICAL NODE PREFIXES

CSWI1 LN Prefix
CSWI2 LN Prefix
CSWI3 LN Prefix
CSWI4 LN Prefix
CSWI5 LN Prefix
CSWI6 LN Prefix
CSWI7 LN Prefix
CSWI8 LN Prefix
CSWI9 LN Prefix
CSWI10 LN Prefix
GGIO1 LN Prefix
GGIO2 LN Prefix
GGIO3 LN Prefix
GGIO4 LN Prefix
GGIO5 LN Prefix
LPHD1 LN Prefix
MMXU1 LN Prefix
MMXU2 LN Prefix
PDIS1 LN Prefix
PDIS2 LN Prefix
PDIS3 LN Prefix

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

LOGICAL NODE PREFIXES (continued from last page)

PDIS4 LN Prefix	
PDIS5 LN Prefix	
PDIS6 LN Prefix	
PDIS7 LN Prefix	
PDIS8 LN Prefix	
PDIS9 LN Prefix	
PDIS10 LN Prefix	
PIOC1 LN Prefix	
PIOC2 LN Prefix	
PIOC3 LN Prefix	
PIOC4 LN Prefix	
PIOC5 LN Prefix	
PIOC6 LN Prefix	
PIOC7 LN Prefix	
PIOC8 LN Prefix	
PTOC1 LN Prefix	
PTOC2 LN Prefix	
PTOC3 LN Prefix	
PTOC4 LN Prefix	
PTOC5 LN Prefix	
PTOC6 LN Prefix	
PTOC7 LN Prefix	
PTOC8 LN Prefix	
PTOC9 LN Prefix	
PTOC10 LN Prefix	
PTOC11 LN Prefix	
PTOC12 LN Prefix	
PTOV1 LN Prefix	
PTOV2 LN Prefix	
PTOV3 LN Prefix	
PTOV4 LN Prefix	
PTOV5 LN Prefix	
PTOV6 LN Prefix	
PTOV7 LN Prefix	
PTOV8 LN Prefix	
PTRC1 LN Prefix	
PTRC2 LN Prefix	
PTUV1 LN Prefix	
PTUV2 LN Prefix	
PTUV3 LN Prefix	
PTUV4 LN Prefix	
RBRF1 LN Prefix	
RBRF2 LN Prefix	
RFLO1 LN Prefix	
RPSB1 LN Prefix	
RREC1 LN Prefix	
XCBR1 LN Prefix	
XCBR2 LN Prefix	
XSWI1 LN Prefix	
XSWI2 LN Prefix	
XSWI3 LN Prefix	
XSWI4 LN Prefix	
XSWI5 LN Prefix	
XSWI6 LN Prefix	
XSWI7 LN Prefix	
XSWI8 LN Prefix	

MMXU DEADBANDS

MMXU1: TotW Deadband	10.000 %
MMXU1: TotVAr Deadband	10.000 %
MMXU1: TotVA Deadband	10.000 %
MMXU1: TotPF Deadband	10.000 %
MMXU1: Hz Deadband	10.000 %
MMXU1: PPV phsAB Deadband	10.000 %
MMXU1: PPV phsBC Deadband	10.000 %

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VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

MMXU DEADBANDS (continued from last page)

MMXU1: PPV phsCA Deadband	10.000 %
MMXU1: PhV phsA Deadband	10.000 %
MMXU1: PhV phsB Deadband	10.000 %
MMXU1: PhV phsC Deadband	10.000 %
MMXU1: A phsA Deadband	10.000 %
MMXU1: A phsB Deadband	10.000 %
MMXU1: A phsC Deadband	10.000 %
MMXU1: A neut Deadband	10.000 %
MMXU1: W phsA Deadband	10.000 %
MMXU1: W phsB Deadband	10.000 %
MMXU1: W phsC Deadband	10.000 %
MMXU1: VAr phsA Deadband	10.000 %
MMXU1: VAr phsB Deadband	10.000 %
MMXU1: VAr phsC Deadband	10.000 %
MMXU1: VA phsA Deadband	10.000 %
MMXU1: VA phsB Deadband	10.000 %
MMXU1: VA phsC Deadband	10.000 %
MMXU1: PF phsA Deadband	10.000 %
MMXU1: PF phsB Deadband	10.000 %
MMXU1: PF phsC Deadband	10.000 %
MMXU2: TotW Deadband	10.000 %
MMXU2: TotVAr Deadband	10.000 %
MMXU2: TotVA Deadband	10.000 %
MMXU2: TotPF Deadband	10.000 %
MMXU2: Hz Deadband	10.000 %
MMXU2: PPV phsAB Deadband	10.000 %
MMXU2: PPV phsBC Deadband	10.000 %
MMXU2: PPV phsCA Deadband	10.000 %
MMXU2: PhV phsA Deadband	10.000 %
MMXU2: PhV phsB Deadband	10.000 %
MMXU2: PhV phsC Deadband	10.000 %
MMXU2: A phsA Deadband	10.000 %
MMXU2: A phsB Deadband	10.000 %
MMXU2: A phsC Deadband	10.000 %
MMXU2: A neut Deadband	10.000 %
MMXU2: W phsA Deadband	10.000 %
MMXU2: W phsB Deadband	10.000 %
MMXU2: W phsC Deadband	10.000 %
MMXU2: VAr phsA Deadband	10.000 %
MMXU2: VAr phsB Deadband	10.000 %
MMXU2: VAr phsC Deadband	10.000 %
MMXU2: VA phsA Deadband	10.000 %
MMXU2: VA phsB Deadband	10.000 %
MMXU2: VA phsC Deadband	10.000 %
MMXU2: PF phsA Deadband	10.000 %
MMXU2: PF phsB Deadband	10.000 %
MMXU2: PF phsC Deadband	10.000 %

GGIO1 STATUS CONFIGURATION

Number of Status Points	8
GGIO1 Indication 1	OFF
GGIO1 Indication 2	OFF
GGIO1 Indication 3	OFF
GGIO1 Indication 4	OFF
GGIO1 Indication 5	OFF
GGIO1 Indication 6	OFF
GGIO1 Indication 7	OFF
GGIO1 Indication 8	OFF
GGIO1 Indication 9	OFF
GGIO1 Indication 10	OFF
GGIO1 Indication 11	OFF
GGIO1 Indication 12	OFF
GGIO1 Indication 13	OFF
GGIO1 Indication 14	OFF
GGIO1 Indication 15	OFF

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
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ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

GGIO1 STATUS CONFIGURATION (continued from last page)

GGIO1 Indication 16	OFF
GGIO1 Indication 17	OFF
GGIO1 Indication 18	OFF
GGIO1 Indication 19	OFF
GGIO1 Indication 20	OFF
GGIO1 Indication 21	OFF
GGIO1 Indication 22	OFF
GGIO1 Indication 23	OFF
GGIO1 Indication 24	OFF
GGIO1 Indication 25	OFF
GGIO1 Indication 26	OFF
GGIO1 Indication 27	OFF
GGIO1 Indication 28	OFF
GGIO1 Indication 29	OFF
GGIO1 Indication 30	OFF
GGIO1 Indication 31	OFF
GGIO1 Indication 32	OFF
GGIO1 Indication 33	OFF
GGIO1 Indication 34	OFF
GGIO1 Indication 35	OFF
GGIO1 Indication 36	OFF
GGIO1 Indication 37	OFF
GGIO1 Indication 38	OFF
GGIO1 Indication 39	OFF
GGIO1 Indication 40	OFF
GGIO1 Indication 41	OFF
GGIO1 Indication 42	OFF
GGIO1 Indication 43	OFF
GGIO1 Indication 44	OFF
GGIO1 Indication 45	OFF
GGIO1 Indication 46	OFF
GGIO1 Indication 47	OFF
GGIO1 Indication 48	OFF
GGIO1 Indication 49	OFF
GGIO1 Indication 50	OFF
GGIO1 Indication 51	OFF
GGIO1 Indication 52	OFF
GGIO1 Indication 53	OFF
GGIO1 Indication 54	OFF
GGIO1 Indication 55	OFF
GGIO1 Indication 56	OFF
GGIO1 Indication 57	OFF
GGIO1 Indication 58	OFF
GGIO1 Indication 59	OFF
GGIO1 Indication 60	OFF
GGIO1 Indication 61	OFF
GGIO1 Indication 62	OFF
GGIO1 Indication 63	OFF
GGIO1 Indication 64	OFF
GGIO1 Indication 65	OFF
GGIO1 Indication 66	OFF
GGIO1 Indication 67	OFF
GGIO1 Indication 68	OFF
GGIO1 Indication 69	OFF
GGIO1 Indication 70	OFF
GGIO1 Indication 71	OFF
GGIO1 Indication 72	OFF
GGIO1 Indication 73	OFF
GGIO1 Indication 74	OFF
GGIO1 Indication 75	OFF
GGIO1 Indication 76	OFF
GGIO1 Indication 77	OFF
GGIO1 Indication 78	OFF
GGIO1 Indication 79	OFF
GGIO1 Indication 80	OFF

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
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ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

GGIO1 STATUS CONFIGURATION (continued from last page)

GGIO1 Indication 81	OFF
GGIO1 Indication 82	OFF
GGIO1 Indication 83	OFF
GGIO1 Indication 84	OFF
GGIO1 Indication 85	OFF
GGIO1 Indication 86	OFF
GGIO1 Indication 87	OFF
GGIO1 Indication 88	OFF
GGIO1 Indication 89	OFF
GGIO1 Indication 90	OFF
GGIO1 Indication 91	OFF
GGIO1 Indication 92	OFF
GGIO1 Indication 93	OFF
GGIO1 Indication 94	OFF
GGIO1 Indication 95	OFF
GGIO1 Indication 96	OFF
GGIO1 Indication 97	OFF
GGIO1 Indication 98	OFF
GGIO1 Indication 99	OFF
GGIO1 Indication 100	OFF
GGIO1 Indication 101	OFF
GGIO1 Indication 102	OFF
GGIO1 Indication 103	OFF
GGIO1 Indication 104	OFF
GGIO1 Indication 105	OFF
GGIO1 Indication 106	OFF
GGIO1 Indication 107	OFF
GGIO1 Indication 108	OFF
GGIO1 Indication 109	OFF
GGIO1 Indication 110	OFF
GGIO1 Indication 111	OFF
GGIO1 Indication 112	OFF
GGIO1 Indication 113	OFF
GGIO1 Indication 114	OFF
GGIO1 Indication 115	OFF
GGIO1 Indication 116	OFF
GGIO1 Indication 117	OFF
GGIO1 Indication 118	OFF
GGIO1 Indication 119	OFF
GGIO1 Indication 120	OFF
GGIO1 Indication 121	OFF
GGIO1 Indication 122	OFF
GGIO1 Indication 123	OFF
GGIO1 Indication 124	OFF
GGIO1 Indication 125	OFF
GGIO1 Indication 126	OFF
GGIO1 Indication 127	OFF
GGIO1 Indication 128	OFF

GGIO2 CONTROL CONFIGURATION

SPCSO 1 ctlModel	1
SPCSO 2 ctlModel	1
SPCSO 3 ctlModel	1
SPCSO 4 ctlModel	1
SPCSO 5 ctlModel	1
SPCSO 6 ctlModel	1
SPCSO 7 ctlModel	1
SPCSO 8 ctlModel	1
SPCSO 9 ctlModel	1
SPCSO 10 ctlModel	1
SPCSO 11 ctlModel	1
SPCSO 12 ctlModel	1
SPCSO 13 ctlModel	1
SPCSO 14 ctlModel	1
SPCSO 15 ctlModel	1

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
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FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

GGIO2 CONTROL CONFIGURATION (continued from last page)

SPCSO 16 ctlModel	1
SPCSO 17 ctlModel	1
SPCSO 18 ctlModel	1
SPCSO 19 ctlModel	1
SPCSO 20 ctlModel	1
SPCSO 21 ctlModel	1
SPCSO 22 ctlModel	1
SPCSO 23 ctlModel	1
SPCSO 24 ctlModel	1
SPCSO 25 ctlModel	1
SPCSO 26 ctlModel	1
SPCSO 27 ctlModel	1
SPCSO 28 ctlModel	1
SPCSO 29 ctlModel	1
SPCSO 30 ctlModel	1
SPCSO 31 ctlModel	1
SPCSO 32 ctlModel	1
SPCSO 33 ctlModel	1
SPCSO 34 ctlModel	1
SPCSO 35 ctlModel	1
SPCSO 36 ctlModel	1
SPCSO 37 ctlModel	1
SPCSO 38 ctlModel	1
SPCSO 39 ctlModel	1
SPCSO 40 ctlModel	1
SPCSO 41 ctlModel	1
SPCSO 42 ctlModel	1
SPCSO 43 ctlModel	1
SPCSO 44 ctlModel	1
SPCSO 45 ctlModel	1
SPCSO 46 ctlModel	1
SPCSO 47 ctlModel	1
SPCSO 48 ctlModel	1
SPCSO 49 ctlModel	1
SPCSO 50 ctlModel	1
SPCSO 51 ctlModel	1
SPCSO 52 ctlModel	1
SPCSO 53 ctlModel	1
SPCSO 54 ctlModel	1
SPCSO 55 ctlModel	1
SPCSO 56 ctlModel	1
SPCSO 57 ctlModel	1
SPCSO 58 ctlModel	1
SPCSO 59 ctlModel	1
SPCSO 60 ctlModel	1
SPCSO 61 ctlModel	1
SPCSO 62 ctlModel	1
SPCSO 63 ctlModel	1
SPCSO 64 ctlModel	1

GGIO4 ANALOG CONFIGURATION

IEC61850 GGIO4 Analogs	4
IEC61850 GGIO4 Analog 1 Value	OFF
IEC61850 GGIO4 Analog 1 db	100.000 %
IEC61850 GGIO4 Analog 1 min	0.000
IEC61850 GGIO4 Analog 1 max	1000000.000
IEC61850 GGIO4 Analog 2 Value	OFF
IEC61850 GGIO4 Analog 2 db	100.000 %
IEC61850 GGIO4 Analog 2 min	0.000
IEC61850 GGIO4 Analog 2 max	1000000.000
IEC61850 GGIO4 Analog 3 Value	OFF
IEC61850 GGIO4 Analog 3 db	100.000 %
IEC61850 GGIO4 Analog 3 min	0.000
IEC61850 GGIO4 Analog 3 max	1000000.000
IEC61850 GGIO4 Analog 4 Value	OFF

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S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
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FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

GGIO4 ANALOG CONFIGURATION (continued from last page)

IEC61850 GGIO4 Analog 4 db	100.000 %
IEC61850 GGIO4 Analog 4 min	0.000
IEC61850 GGIO4 Analog 4 max	1000000.000
IEC61850 GGIO4 Analog 5 Value	OFF
IEC61850 GGIO4 Analog 5 db	100.000 %
IEC61850 GGIO4 Analog 5 min	0.000
IEC61850 GGIO4 Analog 5 max	1000000.000
IEC61850 GGIO4 Analog 6 Value	OFF
IEC61850 GGIO4 Analog 6 db	100.000 %
IEC61850 GGIO4 Analog 6 min	0.000
IEC61850 GGIO4 Analog 6 max	1000000.000
IEC61850 GGIO4 Analog 7 Value	OFF
IEC61850 GGIO4 Analog 7 db	100.000 %
IEC61850 GGIO4 Analog 7 min	0.000
IEC61850 GGIO4 Analog 7 max	1000000.000
IEC61850 GGIO4 Analog 8 Value	OFF
IEC61850 GGIO4 Analog 8 db	100.000 %
IEC61850 GGIO4 Analog 8 min	0.000
IEC61850 GGIO4 Analog 8 max	1000000.000
IEC61850 GGIO4 Analog 9 Value	OFF
IEC61850 GGIO4 Analog 9 db	100.000 %
IEC61850 GGIO4 Analog 9 min	0.000
IEC61850 GGIO4 Analog 9 max	1000000.000
IEC61850 GGIO4 Analog 10 Value	OFF
IEC61850 GGIO4 Analog 10 db	100.000 %
IEC61850 GGIO4 Analog 10 min	0.000
IEC61850 GGIO4 Analog 10 max	1000000.000
IEC61850 GGIO4 Analog 11 Value	OFF
IEC61850 GGIO4 Analog 11 db	100.000 %
IEC61850 GGIO4 Analog 11 min	0.000
IEC61850 GGIO4 Analog 11 max	1000000.000
IEC61850 GGIO4 Analog 12 Value	OFF
IEC61850 GGIO4 Analog 12 db	100.000 %
IEC61850 GGIO4 Analog 12 min	0.000
IEC61850 GGIO4 Analog 12 max	1000000.000
IEC61850 GGIO4 Analog 13 Value	OFF
IEC61850 GGIO4 Analog 13 db	100.000 %
IEC61850 GGIO4 Analog 13 min	0.000
IEC61850 GGIO4 Analog 13 max	1000000.000
IEC61850 GGIO4 Analog 14 Value	OFF
IEC61850 GGIO4 Analog 14 db	100.000 %
IEC61850 GGIO4 Analog 14 min	0.000
IEC61850 GGIO4 Analog 14 max	1000000.000
IEC61850 GGIO4 Analog 15 Value	OFF
IEC61850 GGIO4 Analog 15 db	100.000 %
IEC61850 GGIO4 Analog 15 min	0.000
IEC61850 GGIO4 Analog 15 max	1000000.000
IEC61850 GGIO4 Analog 16 Value	OFF
IEC61850 GGIO4 Analog 16 db	100.000 %
IEC61850 GGIO4 Analog 16 min	0.000
IEC61850 GGIO4 Analog 16 max	1000000.000
IEC61850 GGIO4 Analog 17 Value	OFF
IEC61850 GGIO4 Analog 17 db	100.000 %
IEC61850 GGIO4 Analog 17 min	0.000
IEC61850 GGIO4 Analog 17 max	1000000.000
IEC61850 GGIO4 Analog 18 Value	OFF
IEC61850 GGIO4 Analog 18 db	100.000 %
IEC61850 GGIO4 Analog 18 min	0.000
IEC61850 GGIO4 Analog 18 max	1000000.000
IEC61850 GGIO4 Analog 19 Value	OFF
IEC61850 GGIO4 Analog 19 db	100.000 %
IEC61850 GGIO4 Analog 19 min	0.000
IEC61850 GGIO4 Analog 19 max	1000000.000
IEC61850 GGIO4 Analog 20 Value	OFF
IEC61850 GGIO4 Analog 20 db	100.000 %

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
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VERSION: 6.0X
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SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

GGIO4 ANALOG CONFIGURATION (continued from last page)

IEC61850 GGIO4 Analog 20 min	0.000
IEC61850 GGIO4 Analog 20 max	1000000.000
IEC61850 GGIO4 Analog 21 Value	OFF
IEC61850 GGIO4 Analog 21 db	100.000 %
IEC61850 GGIO4 Analog 21 min	0.000
IEC61850 GGIO4 Analog 21 max	1000000.000
IEC61850 GGIO4 Analog 22 Value	OFF
IEC61850 GGIO4 Analog 22 db	100.000 %
IEC61850 GGIO4 Analog 22 min	0.000
IEC61850 GGIO4 Analog 22 max	1000000.000
IEC61850 GGIO4 Analog 23 Value	OFF
IEC61850 GGIO4 Analog 23 db	100.000 %
IEC61850 GGIO4 Analog 23 min	0.000
IEC61850 GGIO4 Analog 23 max	1000000.000
IEC61850 GGIO4 Analog 24 Value	OFF
IEC61850 GGIO4 Analog 24 db	100.000 %
IEC61850 GGIO4 Analog 24 min	0.000
IEC61850 GGIO4 Analog 24 max	1000000.000
IEC61850 GGIO4 Analog 25 Value	OFF
IEC61850 GGIO4 Analog 25 db	100.000 %
IEC61850 GGIO4 Analog 25 min	0.000
IEC61850 GGIO4 Analog 25 max	1000000.000
IEC61850 GGIO4 Analog 26 Value	OFF
IEC61850 GGIO4 Analog 26 db	100.000 %
IEC61850 GGIO4 Analog 26 min	0.000
IEC61850 GGIO4 Analog 26 max	1000000.000
IEC61850 GGIO4 Analog 27 Value	OFF
IEC61850 GGIO4 Analog 27 db	100.000 %
IEC61850 GGIO4 Analog 27 min	0.000
IEC61850 GGIO4 Analog 27 max	1000000.000
IEC61850 GGIO4 Analog 28 Value	OFF
IEC61850 GGIO4 Analog 28 db	100.000 %
IEC61850 GGIO4 Analog 28 min	0.000
IEC61850 GGIO4 Analog 28 max	1000000.000
IEC61850 GGIO4 Analog 29 Value	OFF
IEC61850 GGIO4 Analog 29 db	100.000 %
IEC61850 GGIO4 Analog 29 min	0.000
IEC61850 GGIO4 Analog 29 max	1000000.000
IEC61850 GGIO4 Analog 30 Value	OFF
IEC61850 GGIO4 Analog 30 db	100.000 %
IEC61850 GGIO4 Analog 30 min	0.000
IEC61850 GGIO4 Analog 30 max	1000000.000
IEC61850 GGIO4 Analog 31 Value	OFF
IEC61850 GGIO4 Analog 31 db	100.000 %
IEC61850 GGIO4 Analog 31 min	0.000
IEC61850 GGIO4 Analog 31 max	1000000.000
IEC61850 GGIO4 Analog 32 Value	OFF
IEC61850 GGIO4 Analog 32 db	100.000 %
IEC61850 GGIO4 Analog 32 min	0.000
IEC61850 GGIO4 Analog 32 max	1000000.000

GGIO5 STATUS CONFIGURATION

IEC61850 GGIO5 UINT Integer 1	OFF
IEC61850 GGIO5 UINT Integer 2	OFF
IEC61850 GGIO5 UINT Integer 3	OFF
IEC61850 GGIO5 UINT Integer 4	OFF
IEC61850 GGIO5 UINT Integer 5	OFF
IEC61850 GGIO5 UINT Integer 6	OFF
IEC61850 GGIO5 UINT Integer 7	OFF
IEC61850 GGIO5 UINT Integer 8	OFF
IEC61850 GGIO5 UINT Integer 9	OFF
IEC61850 GGIO5 UINT Integer 10	OFF
IEC61850 GGIO5 UINT Integer 11	OFF
IEC61850 GGIO5 UINT Integer 12	OFF
IEC61850 GGIO5 UINT Integer 13	OFF

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VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

GGIO5 STATUS CONFIGURATION (continued from last page)

IEC61850 GGIO5 UINT Integer 14	OFF
IEC61850 GGIO5 UINT Integer 15	OFF
IEC61850 GGIO5 UINT Integer 16	OFF

REPORT CONTROL CONFIGURATION

Config Report 1 Dataset Item 1	None
Config Report 1 Dataset Item 2	None
Config Report 1 Dataset Item 3	None
Config Report 1 Dataset Item 4	None
Config Report 1 Dataset Item 5	None
Config Report 1 Dataset Item 6	None
Config Report 1 Dataset Item 7	None
Config Report 1 Dataset Item 8	None
Config Report 1 Dataset Item 9	None
Config Report 1 Dataset Item 10	None
Config Report 1 Dataset Item 11	None
Config Report 1 Dataset Item 12	None
Config Report 1 Dataset Item 13	None
Config Report 1 Dataset Item 14	None
Config Report 1 Dataset Item 15	None
Config Report 1 Dataset Item 16	None
Config Report 1 Dataset Item 17	None
Config Report 1 Dataset Item 18	None
Config Report 1 Dataset Item 19	None
Config Report 1 Dataset Item 20	None
Config Report 1 Dataset Item 21	None
Config Report 1 Dataset Item 22	None
Config Report 1 Dataset Item 23	None
Config Report 1 Dataset Item 24	None
Config Report 1 Dataset Item 25	None
Config Report 1 Dataset Item 26	None
Config Report 1 Dataset Item 27	None
Config Report 1 Dataset Item 28	None
Config Report 1 Dataset Item 29	None
Config Report 1 Dataset Item 30	None
Config Report 1 Dataset Item 31	None
Config Report 1 Dataset Item 32	None
Config Report 1 Dataset Item 33	None
Config Report 1 Dataset Item 34	None
Config Report 1 Dataset Item 35	None
Config Report 1 Dataset Item 36	None
Config Report 1 Dataset Item 37	None
Config Report 1 Dataset Item 38	None
Config Report 1 Dataset Item 39	None
Config Report 1 Dataset Item 40	None
Config Report 1 Dataset Item 41	None
Config Report 1 Dataset Item 42	None
Config Report 1 Dataset Item 43	None
Config Report 1 Dataset Item 44	None
Config Report 1 Dataset Item 45	None
Config Report 1 Dataset Item 46	None
Config Report 1 Dataset Item 47	None
Config Report 1 Dataset Item 48	None
Config Report 1 Dataset Item 49	None
Config Report 1 Dataset Item 50	None
Config Report 1 Dataset Item 51	None
Config Report 1 Dataset Item 52	None
Config Report 1 Dataset Item 53	None
Config Report 1 Dataset Item 54	None
Config Report 1 Dataset Item 55	None
Config Report 1 Dataset Item 56	None
Config Report 1 Dataset Item 57	None
Config Report 1 Dataset Item 58	None
Config Report 1 Dataset Item 59	None
Config Report 1 Dataset Item 60	None

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

REPORT CONTROL CONFIGURATION (continued from last page)

Config Report 1 Dataset Item 61	None
Config Report 1 Dataset Item 62	None
Config Report 1 Dataset Item 63	None
Config Report 1 Dataset Item 64	None

XCBR CONFIGURATION

XCBR1 ST.Loc Operand	OFF
Clear XCBR1 OpCnt	No
XCBR2 ST.Loc Operand	OFF
Clear XCBR2 OpCnt	No

XSWI CONFIGURATION

XSWI1 ST.Loc Operand	OFF
XSWI2 ST.Loc Operand	OFF
XSWI3 ST.Loc Operand	OFF
XSWI4 ST.Loc Operand	OFF
XSWI5 ST.Loc Operand	OFF
XSWI6 ST.Loc Operand	OFF
XSWI7 ST.Loc Operand	OFF
XSWI8 ST.Loc Operand	OFF
Clear XSWI1 OpCnt	No
Clear XSWI2 OpCnt	No
Clear XSWI3 OpCnt	No
Clear XSWI4 OpCnt	No
Clear XSWI5 OpCnt	No
Clear XSWI6 OpCnt	No
Clear XSWI7 OpCnt	No
Clear XSWI8 OpCnt	No

HTTP

HTTP TCP Port Number	80

TFTP

TFTP Main UDP Port Number	69
TFTP Data UDP Port Number 1	0
TFTP Data UDP Port Number 2	0

IEC 60870-5-104

Function	Disabled
IEC TCP Port Number	2404
IEC Client Address 1	0. 0. 0. 0
IEC Client Address 2	0. 0. 0. 0
IEC Client Address 3	0. 0. 0. 0
IEC Client Address 4	0. 0. 0. 0
IEC Client Address 5	0. 0. 0. 0
IEC Common Address of ASDU	0
IEC Cyclic Data Period	60 s
IEC Current Default Threshold	30000
IEC Voltage Default Threshold	30000
IEC Power Default Threshold	30000
IEC Energy Default Threshold	30000
IEC Power Factor Default Threshold	30000
IEC Other Default Threshold	30000
IEC Redundancy Enabled	No

SNTP

Function	Disabled
Server IP Address	0. 0. 0. 0
UDP Port Number	123

MODBUS USER MAP

Address 1	0
Address 2	0
Address 3	0
Address 4	0

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

MODBUS USER MAP (continued from last page)

Address 5	0
Address 6	0
Address 7	0
Address 8	0
Address 9	0
Address 10	0
Address 11	0
Address 12	0
Address 13	0
Address 14	0
Address 15	0
Address 16	0
Address 17	0
Address 18	0
Address 19	0
Address 20	0
Address 21	0
Address 22	0
Address 23	0
Address 24	0
Address 25	0
Address 26	0
Address 27	0
Address 28	0
Address 29	0
Address 30	0
Address 31	0
Address 32	0
Address 33	0
Address 34	0
Address 35	0
Address 36	0
Address 37	0
Address 38	0
Address 39	0
Address 40	0
Address 41	0
Address 42	0
Address 43	0
Address 44	0
Address 45	0
Address 46	0
Address 47	0
Address 48	0
Address 49	0
Address 50	0
Address 51	0
Address 52	0
Address 53	0
Address 54	0
Address 55	0
Address 56	0
Address 57	0
Address 58	0
Address 59	0
Address 60	0
Address 61	0
Address 62	0
Address 63	0
Address 64	0
Address 65	0
Address 66	0
Address 67	0
Address 68	0
Address 69	0

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

MODBUS USER MAP (continued from last page)

Address 70	0
Address 71	0
Address 72	0
Address 73	0
Address 74	0
Address 75	0
Address 76	0
Address 77	0
Address 78	0
Address 79	0
Address 80	0
Address 81	0
Address 82	0
Address 83	0
Address 84	0
Address 85	0
Address 86	0
Address 87	0
Address 88	0
Address 89	0
Address 90	0
Address 91	0
Address 92	0
Address 93	0
Address 94	0
Address 95	0
Address 96	0
Address 97	0
Address 98	0
Address 99	0
Address 100	0
Address 101	0
Address 102	0
Address 103	0
Address 104	0
Address 105	0
Address 106	0
Address 107	0
Address 108	0
Address 109	0
Address 110	0
Address 111	0
Address 112	0
Address 113	0
Address 114	0
Address 115	0
Address 116	0
Address 117	0
Address 118	0
Address 119	0
Address 120	0
Address 121	0
Address 122	0
Address 123	0
Address 124	0
Address 125	0
Address 126	0
Address 127	0
Address 128	0
Address 129	0
Address 130	0
Address 131	0
Address 132	0
Address 133	0
Address 134	0

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

MODBUS USER MAP (continued from last page)

Address 135	0
Address 136	0
Address 137	0
Address 138	0
Address 139	0
Address 140	0
Address 141	0
Address 142	0
Address 143	0
Address 144	0
Address 145	0
Address 146	0
Address 147	0
Address 148	0
Address 149	0
Address 150	0
Address 151	0
Address 152	0
Address 153	0
Address 154	0
Address 155	0
Address 156	0
Address 157	0
Address 158	0
Address 159	0
Address 160	0
Address 161	0
Address 162	0
Address 163	0
Address 164	0
Address 165	0
Address 166	0
Address 167	0
Address 168	0
Address 169	0
Address 170	0
Address 171	0
Address 172	0
Address 173	0
Address 174	0
Address 175	0
Address 176	0
Address 177	0
Address 178	0
Address 179	0
Address 180	0
Address 181	0
Address 182	0
Address 183	0
Address 184	0
Address 185	0
Address 186	0
Address 187	0
Address 188	0
Address 189	0
Address 190	0
Address 191	0
Address 192	0
Address 193	0
Address 194	0
Address 195	0
Address 196	0
Address 197	0
Address 198	0
Address 199	0

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

MODBUS USER MAP (continued from last page)

Address 200	0
Address 201	0
Address 202	0
Address 203	0
Address 204	0
Address 205	0
Address 206	0
Address 207	0
Address 208	0
Address 209	0
Address 210	0
Address 211	0
Address 212	0
Address 213	0
Address 214	0
Address 215	0
Address 216	0
Address 217	0
Address 218	0
Address 219	0
Address 220	0
Address 221	0
Address 222	0
Address 223	0
Address 224	0
Address 225	0
Address 226	0
Address 227	0
Address 228	0
Address 229	0
Address 230	0
Address 231	0
Address 232	0
Address 233	0
Address 234	0
Address 235	0
Address 236	0
Address 237	0
Address 238	0
Address 239	0
Address 240	0
Address 241	0
Address 242	0
Address 243	0
Address 244	0
Address 245	0
Address 246	0
Address 247	0
Address 248	0
Address 249	0
Address 250	0
Address 251	0
Address 252	0
Address 253	0
Address 254	0
Address 255	0
Address 256	0

REAL TIME CLOCK

IRIG-B Signal Type	DC Shift
Real Time Clock Events	Enabled
Time Zone Offset	0.0 hr
DST Function	Disabled
DST Start Month	January
DST Start Day	Sunday

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

REAL TIME CLOCK (continued from last page)

DST Start Day Instance	First
DST Start Hour	2
DST Stop Month	January
DST Stop Day	Sunday
DST Stop Day Instance	First
DST Stop Hour	2

FAULT REPORT

Fault Report 1 Source	Barra (SRC 1)
Fault Report 1 Trigger	TRIPBUS 1 OP
Fault Report 1 Positive Seq (Z1) Mag	0.29 ohms
Fault Report 1 Positive Seq (Z1) Angle	68 deg
Fault Report 1 Zero Seq (Z0) Mag	1.66 ohms
Fault Report 1 Zero Seq (Z0) Angle	77 deg
Fault Report 1 Line Length Units	km
Fault Report 1 Line Length	11.4
Fault Report 1 VT Substitution	None
Fault Report 1 System Z0 Mag	0.90 ohms
Fault Report 1 System Z0 Angle	75 deg

OSCILLOGRAPHY

Number Of Records	5
Trigger Mode	Automatic Overwrite
Trigger Position	50 %
Trigger Source	Osc Trigger On (VO64)
AC Input Waveforms	32 samples/cycle
Digital Channel 1	PH DIR1 BLK
Digital Channel 2	PH DIST Z1 OP
Digital Channel 3	GND DIST Z1 OP
Digital Channel 4	PH DIST Z2 OP
Digital Channel 5	GND DIST Z2 OP
Digital Channel 6	PH DIST Z3 OP
Digital Channel 7	GND DIST Z3 OP
Digital Channel 8	PH DIST Z4 OP
Digital Channel 9	GND DIST Z4 OP
Digital Channel 10	OFF
Digital Channel 11	OFF
Digital Channel 12	LINE PICKUP OP
Digital Channel 13	BREAKER 1 OPEN
Digital Channel 14	BREAKER 1 CLOSED
Digital Channel 15	NEUTRAL IOC1 OP
Digital Channel 16	PHASE IOC1 OP
Digital Channel 17	NEUTRAL IOC1 PKP
Digital Channel 18	PHASE IOC1 PKP
Digital Channel 19	BREAKER 1 OOS
Digital Channel 20	OFF
Digital Channel 21	NEG SEQ DIR OC1 FWD
Digital Channel 22	NEUTRAL TOC1 OP
Digital Channel 23	NEUTRAL TOC2 OP
Digital Channel 24	NEUTRAL TOC1 PKP
Digital Channel 25	NEUTRAL TOC2 PKP
Digital Channel 26	OPEN POLE OP A
Digital Channel 27	OPEN POLE OP B
Digital Channel 28	OPEN POLE OP C
Digital Channel 29	OPEN POLE BKR A OP
Digital Channel 30	OPEN POLE BKR B OP
Digital Channel 31	OPEN POLE BKR C OP
Digital Channel 32	OFF
Digital Channel 33	OFF
Digital Channel 34	OFF
Digital Channel 35	OFF
Digital Channel 36	OFF
Digital Channel 37	OFF
Digital Channel 38	SRC1 VT FUSE FAIL OP
Digital Channel 39	LOAD ENCHR OP

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

OSCILLOGRAPHY (continued from last page)

Digital Channel 40	POWER SWING UN/BLOCK
Digital Channel 41	NEG SEQ DIR OC1 FWD
Digital Channel 42	NEG SEQ DIR OC1 REV
Digital Channel 43	PHASE SELECT AG
Digital Channel 44	PHASE SELECT BG
Digital Channel 45	PHASE SELECT CG
Digital Channel 46	PHASE SELECT AB
Digital Channel 47	PHASE SELECT BC
Digital Channel 48	PHASE SELECT CA
Digital Channel 49	PHASE SELECT ABG
Digital Channel 50	PHASE SELECT BCG
Digital Channel 51	PHASE SELECT CAG
Digital Channel 52	PHASE SELECT VOID
Digital Channel 53	PHASE SELECT 3P
Digital Channel 54	OFF
Digital Channel 55	OFF
Digital Channel 56	OFF
Digital Channel 57	OFF
Digital Channel 58	OFF
Digital Channel 59	OFF
Digital Channel 60	OFF
Digital Channel 61	OFF
Digital Channel 62	OFF
Digital Channel 63	OFF
Analog Channel 1	SRC1 I_0 Mag
Analog Channel 2	SRC1 I_0 Angle
Analog Channel 3	SRC1 I_1 Mag
Analog Channel 4	SRC1 I_1 Angle
Analog Channel 5	SRC1 I_2 Mag
Analog Channel 6	SRC1 I_2 Angle
Analog Channel 7	SRC1 V_0 Mag
Analog Channel 8	SRC1 V_0 Angle
Analog Channel 9	SRC1 V_1 Mag
Analog Channel 10	SRC1 V_1 Angle
Analog Channel 11	SRC1 V_2 Mag
Analog Channel 12	SRC1 V_2 Angle
Analog Channel 13	SRC1 Ia Mag
Analog Channel 14	SRC1 Ib Mag
Analog Channel 15	SRC1 Ic Mag
Analog Channel 16	Tracking Frequency

DATA LOGGER

Data Logger Mode	Continuous
Data Logger Trigger	OFF
Rate	60000 msec
Channel 1	OFF
Channel 2	OFF
Channel 3	OFF
Channel 4	OFF
Channel 5	OFF
Channel 6	OFF
Channel 7	OFF
Channel 8	OFF
Channel 9	OFF
Channel 10	OFF
Channel 11	OFF
Channel 12	OFF
Channel 13	OFF
Channel 14	OFF
Channel 15	OFF
Channel 16	OFF

USER-PROGRAMMABLE LEDS

LED TEST

Function	Enabled

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

LED TEST (continued from last page)

Control	CONTROL PUSHBUTTON 1 ON

TRIP AND ALARMS LEDS

Trip LED Input	Op. 21/21N On (VO1)
Alarm LED Input	LINE PICKUP OP

USER PROGRAMMABLE LEDS

LED 1: OPERAND	SETTING GROUP ACT 1
LED 1: TYPE	Self-Reset
LED 2: OPERAND	OFF
LED 2: TYPE	Self-Reset
LED 3: OPERAND	OFF
LED 3: TYPE	Self-Reset
LED 4: OPERAND	OFF
LED 4: TYPE	Self-Reset
LED 5: OPERAND	OFF
LED 5: TYPE	Self-Reset
LED 6: OPERAND	OFF
LED 6: TYPE	Self-Reset
LED 7: OPERAND	OFF
LED 7: TYPE	Self-Reset
LED 8: OPERAND	OFF
LED 8: TYPE	Self-Reset
LED 9: OPERAND	52H3 Abierto On(H1c)
LED 9: TYPE	Self-Reset
LED 10: OPERAND	52H3 cerrado On(H2a)
LED 10: TYPE	Self-Reset
LED 11: OPERAND	OFF
LED 11: TYPE	Self-Reset
LED 12: OPERAND	OFF
LED 12: TYPE	Self-Reset
LED 13: OPERAND	OFF
LED 13: TYPE	Self-Reset
LED 14: OPERAND	52H3 Abierto On(H1c)
LED 14: TYPE	Self-Reset
LED 15: OPERAND	52H3 cerrado On(H2a)
LED 15: TYPE	Self-Reset
LED 16: OPERAND	OFF
LED 16: TYPE	Self-Reset
LED 17: OPERAND	SYNC 1 SYNC OP
LED 17: TYPE	Self-Reset
LED 18: OPERAND	OFF
LED 18: TYPE	Self-Reset
LED 19: OPERAND	OFF
LED 19: TYPE	Self-Reset
LED 20: OPERAND	OFF
LED 20: TYPE	Self-Reset
LED 21: OPERAND	Bloqueo 79 On(H1a)
LED 21: TYPE	Self-Reset
LED 22: OPERAND	Bloqueo 79 Off(H1a)
LED 22: TYPE	Self-Reset
LED 23: OPERAND	OFF
LED 23: TYPE	Self-Reset
LED 24: OPERAND	OFF
LED 24: TYPE	Self-Reset
LED 25: OPERAND	PH DIST Z1 OP
LED 25: TYPE	Latched
LED 26: OPERAND	PH DIST Z2 OP
LED 26: TYPE	Latched
LED 27: OPERAND	PH DIST Z3 OP
LED 27: TYPE	Latched
LED 28: OPERAND	PH DIST Z4 OP
LED 28: TYPE	Latched
LED 29: OPERAND	GND DIST Z1 OP
LED 29: TYPE	Latched

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

USER PROGRAMMABLE LEDS (continued from last page)

LED 30: OPERAND	GND DIST Z2 OP
LED 30: TYPE	Latched
LED 31: OPERAND	GND DIST Z3 OP
LED 31: TYPE	Latched
LED 32: OPERAND	GND DIST Z4 OP
LED 32: TYPE	Latched
LED 33: OPERAND	NEUTRAL TOC1 OP
LED 33: TYPE	Latched
LED 34: OPERAND	NTRL DIR OC1 REV
LED 34: TYPE	Latched
LED 35: OPERAND	BKR FAIL 1 TRIP OP
LED 35: TYPE	Latched
LED 36: OPERAND	POWER SWING TRIP
LED 36: TYPE	Latched
LED 37: OPERAND	LINE PICKUP OP
LED 37: TYPE	Latched
LED 38: OPERAND	OFF
LED 38: TYPE	Self-Reset
LED 39: OPERAND	OFF
LED 39: TYPE	Self-Reset
LED 40: OPERAND	OFF
LED 40: TYPE	Self-Reset
LED 41: OPERAND	AUX UV 1 OP
LED 41: TYPE	Latched
LED 42: OPERAND	OFF
LED 42: TYPE	Self-Reset
LED 43: OPERAND	OFF
LED 43: TYPE	Self-Reset
LED 44: OPERAND	OFF
LED 44: TYPE	Self-Reset
LED 45: OPERAND	OFF
LED 45: TYPE	Self-Reset
LED 46: OPERAND	Virt Op 9 On (VO5)
LED 46: TYPE	Latched
LED 47: OPERAND	Virt Op 10 On (VO6)
LED 47: TYPE	Self-Reset
LED 48: OPERAND	TRIP 85A On (VO4)
LED 48: TYPE	Latched

USER-PROGRAMMABLE SELF TESTS

Remote Device Off Function	Enabled
Pri Ethernet Fail Function	Disabled
Battery Fail Function	Enabled
SNTP Fail Function	Enabled
IRIG B Fail Function	Enabled

CONTROL PUSHBUTTONS

CPB 1: Function	Enabled
CPB 1: Events	Disabled
CPB 2: Function	Disabled
CPB 2: Events	Disabled
CPB 3: Function	Disabled
CPB 3: Events	Disabled

FLEX STATES

Parameter 1	OFF
Parameter 2	OFF
Parameter 3	OFF
Parameter 4	OFF
Parameter 5	OFF
Parameter 6	OFF
Parameter 7	OFF
Parameter 8	OFF
Parameter 9	OFF
Parameter 10	OFF

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEX STATES (continued from last page)

Parameter 11	OFF
Parameter 12	OFF
Parameter 13	OFF
Parameter 14	OFF
Parameter 15	OFF
Parameter 16	OFF
Parameter 17	OFF
Parameter 18	OFF
Parameter 19	OFF
Parameter 20	OFF
Parameter 21	OFF
Parameter 22	OFF
Parameter 23	OFF
Parameter 24	OFF
Parameter 25	OFF
Parameter 26	OFF
Parameter 27	OFF
Parameter 28	OFF
Parameter 29	OFF
Parameter 30	OFF
Parameter 31	OFF
Parameter 32	OFF
Parameter 33	OFF
Parameter 34	OFF
Parameter 35	OFF
Parameter 36	OFF
Parameter 37	OFF
Parameter 38	OFF
Parameter 39	OFF
Parameter 40	OFF
Parameter 41	OFF
Parameter 42	OFF
Parameter 43	OFF
Parameter 44	OFF
Parameter 45	OFF
Parameter 46	OFF
Parameter 47	OFF
Parameter 48	OFF
Parameter 49	OFF
Parameter 50	OFF
Parameter 51	OFF
Parameter 52	OFF
Parameter 53	OFF
Parameter 54	OFF
Parameter 55	OFF
Parameter 56	OFF
Parameter 57	OFF
Parameter 58	OFF
Parameter 59	OFF
Parameter 60	OFF
Parameter 61	OFF
Parameter 62	OFF
Parameter 63	OFF
Parameter 64	OFF
Parameter 65	OFF
Parameter 66	OFF
Parameter 67	OFF
Parameter 68	OFF
Parameter 69	OFF
Parameter 70	OFF
Parameter 71	OFF
Parameter 72	OFF
Parameter 73	OFF
Parameter 74	OFF
Parameter 75	OFF

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEX STATES (continued from last page)

Parameter 76	OFF
Parameter 77	OFF
Parameter 78	OFF
Parameter 79	OFF
Parameter 80	OFF
Parameter 81	OFF
Parameter 82	OFF
Parameter 83	OFF
Parameter 84	OFF
Parameter 85	OFF
Parameter 86	OFF
Parameter 87	OFF
Parameter 88	OFF
Parameter 89	OFF
Parameter 90	OFF
Parameter 91	OFF
Parameter 92	OFF
Parameter 93	OFF
Parameter 94	OFF
Parameter 95	OFF
Parameter 96	OFF
Parameter 97	OFF
Parameter 98	OFF
Parameter 99	OFF
Parameter 100	OFF
Parameter 101	OFF
Parameter 102	OFF
Parameter 103	OFF
Parameter 104	OFF
Parameter 105	OFF
Parameter 106	OFF
Parameter 107	OFF
Parameter 108	OFF
Parameter 109	OFF
Parameter 110	OFF
Parameter 111	OFF
Parameter 112	OFF
Parameter 113	OFF
Parameter 114	OFF
Parameter 115	OFF
Parameter 116	OFF
Parameter 117	OFF
Parameter 118	OFF
Parameter 119	OFF
Parameter 120	OFF
Parameter 121	OFF
Parameter 122	OFF
Parameter 123	OFF
Parameter 124	OFF
Parameter 125	OFF
Parameter 126	OFF
Parameter 127	OFF
Parameter 128	OFF
Parameter 129	OFF
Parameter 130	OFF
Parameter 131	OFF
Parameter 132	OFF
Parameter 133	OFF
Parameter 134	OFF
Parameter 135	OFF
Parameter 136	OFF
Parameter 137	OFF
Parameter 138	OFF
Parameter 139	OFF
Parameter 140	OFF

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEX STATES (continued from last page)

Parameter 141	OFF
Parameter 142	OFF
Parameter 143	OFF
Parameter 144	OFF
Parameter 145	OFF
Parameter 146	OFF
Parameter 147	OFF
Parameter 148	OFF
Parameter 149	OFF
Parameter 150	OFF
Parameter 151	OFF
Parameter 152	OFF
Parameter 153	OFF
Parameter 154	OFF
Parameter 155	OFF
Parameter 156	OFF
Parameter 157	OFF
Parameter 158	OFF
Parameter 159	OFF
Parameter 160	OFF
Parameter 161	OFF
Parameter 162	OFF
Parameter 163	OFF
Parameter 164	OFF
Parameter 165	OFF
Parameter 166	OFF
Parameter 167	OFF
Parameter 168	OFF
Parameter 169	OFF
Parameter 170	OFF
Parameter 171	OFF
Parameter 172	OFF
Parameter 173	OFF
Parameter 174	OFF
Parameter 175	OFF
Parameter 176	OFF
Parameter 177	OFF
Parameter 178	OFF
Parameter 179	OFF
Parameter 180	OFF
Parameter 181	OFF
Parameter 182	OFF
Parameter 183	OFF
Parameter 184	OFF
Parameter 185	OFF
Parameter 186	OFF
Parameter 187	OFF
Parameter 188	OFF
Parameter 189	OFF
Parameter 190	OFF
Parameter 191	OFF
Parameter 192	OFF
Parameter 193	OFF
Parameter 194	OFF
Parameter 195	OFF
Parameter 196	OFF
Parameter 197	OFF
Parameter 198	OFF
Parameter 199	OFF
Parameter 200	OFF
Parameter 201	OFF
Parameter 202	OFF
Parameter 203	OFF
Parameter 204	OFF
Parameter 205	OFF

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEX STATES (continued from last page)

Parameter 206	OFF
Parameter 207	OFF
Parameter 208	OFF
Parameter 209	OFF
Parameter 210	OFF
Parameter 211	OFF
Parameter 212	OFF
Parameter 213	OFF
Parameter 214	OFF
Parameter 215	OFF
Parameter 216	OFF
Parameter 217	OFF
Parameter 218	OFF
Parameter 219	OFF
Parameter 220	OFF
Parameter 221	OFF
Parameter 222	OFF
Parameter 223	OFF
Parameter 224	OFF
Parameter 225	OFF
Parameter 226	OFF
Parameter 227	OFF
Parameter 228	OFF
Parameter 229	OFF
Parameter 230	OFF
Parameter 231	OFF
Parameter 232	OFF
Parameter 233	OFF
Parameter 234	OFF
Parameter 235	OFF
Parameter 236	OFF
Parameter 237	OFF
Parameter 238	OFF
Parameter 239	OFF
Parameter 240	OFF
Parameter 241	OFF
Parameter 242	OFF
Parameter 243	OFF
Parameter 244	OFF
Parameter 245	OFF
Parameter 246	OFF
Parameter 247	OFF
Parameter 248	OFF
Parameter 249	OFF
Parameter 250	OFF
Parameter 251	OFF
Parameter 252	OFF
Parameter 253	OFF
Parameter 254	OFF
Parameter 255	OFF
Parameter 256	OFF

USER-DEFINABLE DISPLAYS

USER DISPLAY 1: Top Line	S/E Los Maquis
USER DISPLAY 1: Bottom Line	COLBUN
USER DISPLAY 1: Item 1	1
USER DISPLAY 1: Item 2	0
USER DISPLAY 1: Item 3	0
USER DISPLAY 1: Item 4	0
USER DISPLAY 1: Item 5	0
USER DISPLAY 2: Top Line	Esperanza 1
USER DISPLAY 2: Bottom Line	Aconcagua
USER DISPLAY 2: Item 1	2
USER DISPLAY 2: Item 2	0
USER DISPLAY 2: Item 3	0

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

USER-DEFINABLE DISPLAYS (continued from last page)

USER DISPLAY 2: Item 4	0
USER DISPLAY 2: Item 5	0
USER DISPLAY 3: Top Line	Sistema 1
USER DISPLAY 3: Bottom Line	21/21N-67N-51N-50BF
USER DISPLAY 3: Item 1	3
USER DISPLAY 3: Item 2	0
USER DISPLAY 3: Item 3	0
USER DISPLAY 3: Item 4	0
USER DISPLAY 3: Item 5	0
USER DISPLAY 4: Top Line	
USER DISPLAY 4: Bottom Line	
USER DISPLAY 4: Item 1	4
USER DISPLAY 4: Item 2	0
USER DISPLAY 4: Item 3	0
USER DISPLAY 4: Item 4	0
USER DISPLAY 4: Item 5	0
USER DISPLAY 5: Top Line	Corriente Ia:~
USER DISPLAY 5: Bottom Line	b:~
USER DISPLAY 5: Item 1	6152
USER DISPLAY 5: Item 2	6155
USER DISPLAY 5: Item 3	0
USER DISPLAY 5: Item 4	0
USER DISPLAY 5: Item 5	0
USER DISPLAY 6: Top Line	c:~
USER DISPLAY 6: Bottom Line	
USER DISPLAY 6: Item 1	6158
USER DISPLAY 6: Item 2	0
USER DISPLAY 6: Item 3	0
USER DISPLAY 6: Item 4	0
USER DISPLAY 6: Item 5	0
USER DISPLAY 7: Top Line	Voltaje Ag:~
USER DISPLAY 7: Bottom Line	Bg:~
USER DISPLAY 7: Item 1	6662
USER DISPLAY 7: Item 2	6665
USER DISPLAY 7: Item 3	0
USER DISPLAY 7: Item 4	0
USER DISPLAY 7: Item 5	0
USER DISPLAY 8: Top Line	Cg:~
USER DISPLAY 8: Bottom Line	
USER DISPLAY 8: Item 1	6668
USER DISPLAY 8: Item 2	0
USER DISPLAY 8: Item 3	0
USER DISPLAY 8: Item 4	0
USER DISPLAY 8: Item 5	0
USER DISPLAY 9: Top Line	P. Activa 3 fases
USER DISPLAY 9: Bottom Line	P :~
USER DISPLAY 9: Item 1	7168
USER DISPLAY 9: Item 2	0
USER DISPLAY 9: Item 3	0
USER DISPLAY 9: Item 4	0
USER DISPLAY 9: Item 5	0
USER DISPLAY 10: Top Line	P. Reactiva 3 Fases
USER DISPLAY 10: Bottom Line	Q:~
USER DISPLAY 10: Item 1	7176
USER DISPLAY 10: Item 2	0
USER DISPLAY 10: Item 3	0
USER DISPLAY 10: Item 4	0
USER DISPLAY 10: Item 5	0
USER DISPLAY 11: Top Line	P. Aparente 3 Fases
USER DISPLAY 11: Bottom Line	S:~
USER DISPLAY 11: Item 1	7184
USER DISPLAY 11: Item 2	0
USER DISPLAY 11: Item 3	0
USER DISPLAY 11: Item 4	0
USER DISPLAY 11: Item 5	0

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

USER-DEFINABLE DISPLAYS (continued from last page)

USER DISPLAY 12: Top Line	
USER DISPLAY 12: Bottom Line	
USER DISPLAY 12: Item 1	0
USER DISPLAY 12: Item 2	0
USER DISPLAY 12: Item 3	0
USER DISPLAY 12: Item 4	0
USER DISPLAY 12: Item 5	0
USER DISPLAY 13: Top Line	
USER DISPLAY 13: Bottom Line	
USER DISPLAY 13: Item 1	0
USER DISPLAY 13: Item 2	0
USER DISPLAY 13: Item 3	0
USER DISPLAY 13: Item 4	0
USER DISPLAY 13: Item 5	0
USER DISPLAY 14: Top Line	
USER DISPLAY 14: Bottom Line	
USER DISPLAY 14: Item 1	0
USER DISPLAY 14: Item 2	0
USER DISPLAY 14: Item 3	0
USER DISPLAY 14: Item 4	0
USER DISPLAY 14: Item 5	0
USER DISPLAY 15: Top Line	
USER DISPLAY 15: Bottom Line	
USER DISPLAY 15: Item 1	0
USER DISPLAY 15: Item 2	0
USER DISPLAY 15: Item 3	0
USER DISPLAY 15: Item 4	0
USER DISPLAY 15: Item 5	0
USER DISPLAY 16: Top Line	
USER DISPLAY 16: Bottom Line	
USER DISPLAY 16: Item 1	0
USER DISPLAY 16: Item 2	0
USER DISPLAY 16: Item 3	0
USER DISPLAY 16: Item 4	0
USER DISPLAY 16: Item 5	0
Invoke and Scroll	OFF

INSTALLATION

Relay Name	S1 esperanza 1

SYSTEM SETUP
AC INPUTS

CURRENT

CT F1: Phase CT Primary	300 A
CT F1: Phase CT Secondary	5 A
CT F1: Ground CT Primary	1 A
CT F1: Ground CT Secondary	1 A

VOLTAGE

VT F5: Phase VT Connection	Wye
VT F5: Phase VT Secondary	66.4 V
VT F5: Phase VT Ratio	1000.00 :1
VT F5: Auxiliary VT Connection	Vag
VT F5: Auxiliary VT Secondary	66.4 V
VT F5: Auxiliary VT Ratio	1000.00 :1

POWER SYSTEM

Nominal Frequency	50 Hz
Phase Rotation	ABC
Frequency And Phase Reference	Barra (SRC 1)
Frequency Tracking Function	Enabled

SIGNAL SOURCES

SOURCE 1: Name	Barra
SOURCE 1: Phase CT	F1

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

SIGNAL SOURCES (continued from last page)

SOURCE 1: Ground CT	None
SOURCE 1: Phase VT	F5
SOURCE 1: Auxiliary VT	None
SOURCE 2: Name	Linea
SOURCE 2: Phase CT	None
SOURCE 2: Ground CT	None
SOURCE 2: Phase VT	None
SOURCE 2: Auxiliary VT	F5

BREAKERS

Breaker 1 Function	Disabled
Breaker 1 Push Button Control	Disabled
Breaker 1 Name	Bkr 1
Breaker 1 Mode	3-Pole
Breaker 1 Open	OFF
Breaker 1 Block Open	OFF
Breaker 1 Close	OFF
Breaker 1 Block Close	OFF
Breaker 1 Phase A/3-Pole Closed	OFF
Breaker 1 Phase A/3-Pole Opened	OFF
Breaker 1 Phase B Closed	OFF
Breaker 1 Phase B Opened	OFF
Breaker 1 Phase C Closed	OFF
Breaker 1 Phase C Opened	OFF
Breaker 1 Toperate	0.070 s
Breaker 1 External Alarm	OFF
Breaker 1 Alarm Delay	0.000 s
Breaker 1 Manual Close Recal Time	0.000 s
Breaker 1 Out Of Service	OFF
Breaker 1 Events	Disabled
Breaker 2 Function	Disabled
Breaker 2 Push Button Control	Disabled
Breaker 2 Name	Bkr 2
Breaker 2 Mode	3-Pole
Breaker 2 Open	OFF
Breaker 2 Block Open	OFF
Breaker 2 Close	OFF
Breaker 2 Block Close	OFF
Breaker 2 Phase A/3-Pole Closed	OFF
Breaker 2 Phase A/3-Pole Opened	OFF
Breaker 2 Phase B Closed	OFF
Breaker 2 Phase B Opened	OFF
Breaker 2 Phase C Closed	OFF
Breaker 2 Phase C Opened	OFF
Breaker 2 Toperate	0.070 s
Breaker 2 External Alarm	OFF
Breaker 2 Alarm Delay	0.000 s
Breaker 2 Manual Close Recal Time	0.000 s
Breaker 2 Out Of Service	OFF
Breaker 2 Events	Disabled

SWITCHES

Switch 1 Function	Disabled
Switch 1 Name	SW 1
Switch 1 Mode	3-Pole
Switch 1 Open	OFF
Switch 1 Block Open	OFF
Switch 1 Close	OFF
Switch 1 Block Close	OFF
Switch 1 Phase A/3 Pole Closed	OFF
Switch 1 Phase A/3 Pole Opened	OFF
Switch 1 Phase B Closed	OFF
Switch 1 Phase B Opened	OFF
Switch 1 Phase C Closed	OFF
Switch 1 Phase C Opened	OFF

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

SWITCHES (continued from last page)

Switch 1 Toperate	0.070 s
Switch 1 Alarm Delay	0.000 s
Switch 1 Events	Disabled
Switch 2 Function	Disabled
Switch 2 Name	SW 2
Switch 2 Mode	3-Pole
Switch 2 Open	OFF
Switch 2 Block Open	OFF
Switch 2 Close	OFF
Switch 2 Block Close	OFF
Switch 2 Phase A/3 Pole Closed	OFF
Switch 2 Phase A/3 Pole Opened	OFF
Switch 2 Phase B Closed	OFF
Switch 2 Phase B Opened	OFF
Switch 2 Phase C Closed	OFF
Switch 2 Phase C Opened	OFF
Switch 2 Toperate	0.070 s
Switch 2 Alarm Delay	0.000 s
Switch 2 Events	Disabled
Switch 3 Function	Disabled
Switch 3 Name	SW 3
Switch 3 Mode	3-Pole
Switch 3 Open	OFF
Switch 3 Block Open	OFF
Switch 3 Close	OFF
Switch 3 Block Close	OFF
Switch 3 Phase A/3 Pole Closed	OFF
Switch 3 Phase A/3 Pole Opened	OFF
Switch 3 Phase B Closed	OFF
Switch 3 Phase B Opened	OFF
Switch 3 Phase C Closed	OFF
Switch 3 Phase C Opened	OFF
Switch 3 Toperate	0.070 s
Switch 3 Alarm Delay	0.000 s
Switch 3 Events	Disabled
Switch 4 Function	Disabled
Switch 4 Name	SW 4
Switch 4 Mode	3-Pole
Switch 4 Open	OFF
Switch 4 Block Open	OFF
Switch 4 Close	OFF
Switch 4 Block Close	OFF
Switch 4 Phase A/3 Pole Closed	OFF
Switch 4 Phase A/3 Pole Opened	OFF
Switch 4 Phase B Closed	OFF
Switch 4 Phase B Opened	OFF
Switch 4 Phase C Closed	OFF
Switch 4 Phase C Opened	OFF
Switch 4 Toperate	0.070 s
Switch 4 Alarm Delay	0.000 s
Switch 4 Events	Disabled
Switch 5 Function	Disabled
Switch 5 Name	SW 5
Switch 5 Mode	3-Pole
Switch 5 Open	OFF
Switch 5 Block Open	OFF
Switch 5 Close	OFF
Switch 5 Block Close	OFF
Switch 5 Phase A/3 Pole Closed	OFF
Switch 5 Phase A/3 Pole Opened	OFF
Switch 5 Phase B Closed	OFF
Switch 5 Phase B Opened	OFF
Switch 5 Phase C Closed	OFF
Switch 5 Phase C Opened	OFF
Switch 5 Toperate	0.070 s

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

SWITCHES (continued from last page)

Switch 5 Alarm Delay	0.000 s
Switch 5 Events	Disabled
Switch 6 Function	Disabled
Switch 6 Name	SW 6
Switch 6 Mode	3-Pole
Switch 6 Open	OFF
Switch 6 Block Open	OFF
Switch 6 Close	OFF
Switch 6 Block Close	OFF
Switch 6 Phase A/3 Pole Closed	OFF
Switch 6 Phase A/3 Pole Opened	OFF
Switch 6 Phase B Closed	OFF
Switch 6 Phase B Opened	OFF
Switch 6 Phase C Closed	OFF
Switch 6 Phase C Opened	OFF
Switch 6 Toperate	0.070 s
Switch 6 Alarm Delay	0.000 s
Switch 6 Events	Disabled
Switch 7 Function	Disabled
Switch 7 Name	SW 7
Switch 7 Mode	3-Pole
Switch 7 Open	OFF
Switch 7 Block Open	OFF
Switch 7 Close	OFF
Switch 7 Block Close	OFF
Switch 7 Phase A/3 Pole Closed	OFF
Switch 7 Phase A/3 Pole Opened	OFF
Switch 7 Phase B Closed	OFF
Switch 7 Phase B Opened	OFF
Switch 7 Phase C Closed	OFF
Switch 7 Phase C Opened	OFF
Switch 7 Toperate	0.070 s
Switch 7 Alarm Delay	0.000 s
Switch 7 Events	Disabled
Switch 8 Function	Disabled
Switch 8 Name	SW 8
Switch 8 Mode	3-Pole
Switch 8 Open	OFF
Switch 8 Block Open	OFF
Switch 8 Close	OFF
Switch 8 Block Close	OFF
Switch 8 Phase A/3 Pole Closed	OFF
Switch 8 Phase A/3 Pole Opened	OFF
Switch 8 Phase B Closed	OFF
Switch 8 Phase B Opened	OFF
Switch 8 Phase C Closed	OFF
Switch 8 Phase C Opened	OFF
Switch 8 Toperate	0.070 s
Switch 8 Alarm Delay	0.000 s
Switch 8 Events	Disabled

FLEXCURVES

FLEXCURVE A

0.00 x PKP	0 ms
0.05 x PKP	0 ms
0.10 x PKP	0 ms
0.15 x PKP	0 ms
0.20 x PKP	0 ms
0.25 x PKP	0 ms
0.30 x PKP	0 ms
0.35 x PKP	0 ms
0.40 x PKP	0 ms
0.45 x PKP	0 ms
0.48 x PKP	0 ms
0.50 x PKP	0 ms

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXCURVE A (continued from last page)

0.52 x PKP	0 ms
0.54 x PKP	0 ms
0.56 x PKP	0 ms
0.58 x PKP	0 ms
0.60 x PKP	0 ms
0.62 x PKP	0 ms
0.64 x PKP	0 ms
0.66 x PKP	0 ms
0.68 x PKP	0 ms
0.70 x PKP	0 ms
0.72 x PKP	0 ms
0.74 x PKP	0 ms
0.76 x PKP	0 ms
0.78 x PKP	0 ms
0.80 x PKP	0 ms
0.82 x PKP	0 ms
0.84 x PKP	0 ms
0.86 x PKP	0 ms
0.88 x PKP	0 ms
0.90 x PKP	0 ms
0.91 x PKP	0 ms
0.92 x PKP	0 ms
0.93 x PKP	0 ms
0.94 x PKP	0 ms
0.95 x PKP	0 ms
0.96 x PKP	0 ms
0.97 x PKP	0 ms
0.98 x PKP	0 ms
1.03 x PKP	0 ms
1.05 x PKP	0 ms
1.10 x PKP	0 ms
1.20 x PKP	0 ms
1.30 x PKP	0 ms
1.40 x PKP	0 ms
1.50 x PKP	0 ms
1.60 x PKP	0 ms
1.70 x PKP	0 ms
1.80 x PKP	0 ms
1.90 x PKP	0 ms
2.00 x PKP	0 ms
2.10 x PKP	0 ms
2.20 x PKP	0 ms
2.30 x PKP	0 ms
2.40 x PKP	0 ms
2.50 x PKP	0 ms
2.60 x PKP	0 ms
2.70 x PKP	0 ms
2.80 x PKP	0 ms
2.90 x PKP	0 ms
3.00 x PKP	0 ms
3.10 x PKP	0 ms
3.20 x PKP	0 ms
3.30 x PKP	0 ms
3.40 x PKP	0 ms
3.50 x PKP	0 ms
3.60 x PKP	0 ms
3.70 x PKP	0 ms
3.80 x PKP	0 ms
3.90 x PKP	0 ms
4.00 x PKP	0 ms
4.10 x PKP	0 ms
4.20 x PKP	0 ms
4.30 x PKP	0 ms
4.40 x PKP	0 ms
4.50 x PKP	0 ms

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXCURVE A (continued from last page)

4.60 x PKP	0 ms
4.70 x PKP	0 ms
4.80 x PKP	0 ms
4.90 x PKP	0 ms
5.00 x PKP	0 ms
5.10 x PKP	0 ms
5.20 x PKP	0 ms
5.30 x PKP	0 ms
5.40 x PKP	0 ms
5.50 x PKP	0 ms
5.60 x PKP	0 ms
5.70 x PKP	0 ms
5.80 x PKP	0 ms
5.90 x PKP	0 ms
6.00 x PKP	0 ms
6.50 x PKP	0 ms
7.00 x PKP	0 ms
7.50 x PKP	0 ms
8.00 x PKP	0 ms
8.50 x PKP	0 ms
9.00 x PKP	0 ms
9.50 x PKP	0 ms
10.00 x PKP	0 ms
10.50 x PKP	0 ms
11.00 x PKP	0 ms
11.50 x PKP	0 ms
12.00 x PKP	0 ms
12.50 x PKP	0 ms
13.00 x PKP	0 ms
13.50 x PKP	0 ms
14.00 x PKP	0 ms
14.50 x PKP	0 ms
15.00 x PKP	0 ms
15.50 x PKP	0 ms
16.00 x PKP	0 ms
16.50 x PKP	0 ms
17.00 x PKP	0 ms
17.50 x PKP	0 ms
18.00 x PKP	0 ms
18.50 x PKP	0 ms
19.00 x PKP	0 ms
19.50 x PKP	0 ms
20.00 x PKP	0 ms

FLEXCURVE B

0.00 x PKP	0 ms
0.05 x PKP	0 ms
0.10 x PKP	0 ms
0.15 x PKP	0 ms
0.20 x PKP	0 ms
0.25 x PKP	0 ms
0.30 x PKP	0 ms
0.35 x PKP	0 ms
0.40 x PKP	0 ms
0.45 x PKP	0 ms
0.48 x PKP	0 ms
0.50 x PKP	0 ms
0.52 x PKP	0 ms
0.54 x PKP	0 ms
0.56 x PKP	0 ms
0.58 x PKP	0 ms
0.60 x PKP	0 ms
0.62 x PKP	0 ms
0.64 x PKP	0 ms
0.66 x PKP	0 ms

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXCURVE B (continued from last page)

0.68 x PKP	0 ms
0.70 x PKP	0 ms
0.72 x PKP	0 ms
0.74 x PKP	0 ms
0.76 x PKP	0 ms
0.78 x PKP	0 ms
0.80 x PKP	0 ms
0.82 x PKP	0 ms
0.84 x PKP	0 ms
0.86 x PKP	0 ms
0.88 x PKP	0 ms
0.90 x PKP	0 ms
0.91 x PKP	0 ms
0.92 x PKP	0 ms
0.93 x PKP	0 ms
0.94 x PKP	0 ms
0.95 x PKP	0 ms
0.96 x PKP	0 ms
0.97 x PKP	0 ms
0.98 x PKP	0 ms
1.03 x PKP	0 ms
1.05 x PKP	0 ms
1.10 x PKP	0 ms
1.20 x PKP	0 ms
1.30 x PKP	0 ms
1.40 x PKP	0 ms
1.50 x PKP	0 ms
1.60 x PKP	0 ms
1.70 x PKP	0 ms
1.80 x PKP	0 ms
1.90 x PKP	0 ms
2.00 x PKP	0 ms
2.10 x PKP	0 ms
2.20 x PKP	0 ms
2.30 x PKP	0 ms
2.40 x PKP	0 ms
2.50 x PKP	0 ms
2.60 x PKP	0 ms
2.70 x PKP	0 ms
2.80 x PKP	0 ms
2.90 x PKP	0 ms
3.00 x PKP	0 ms
3.10 x PKP	0 ms
3.20 x PKP	0 ms
3.30 x PKP	0 ms
3.40 x PKP	0 ms
3.50 x PKP	0 ms
3.60 x PKP	0 ms
3.70 x PKP	0 ms
3.80 x PKP	0 ms
3.90 x PKP	0 ms
4.00 x PKP	0 ms
4.10 x PKP	0 ms
4.20 x PKP	0 ms
4.30 x PKP	0 ms
4.40 x PKP	0 ms
4.50 x PKP	0 ms
4.60 x PKP	0 ms
4.70 x PKP	0 ms
4.80 x PKP	0 ms
4.90 x PKP	0 ms
5.00 x PKP	0 ms
5.10 x PKP	0 ms
5.20 x PKP	0 ms
5.30 x PKP	0 ms

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXCURVE B (continued from last page)

5.40 x PKP	0 ms
5.50 x PKP	0 ms
5.60 x PKP	0 ms
5.70 x PKP	0 ms
5.80 x PKP	0 ms
5.90 x PKP	0 ms
6.00 x PKP	0 ms
6.50 x PKP	0 ms
7.00 x PKP	0 ms
7.50 x PKP	0 ms
8.00 x PKP	0 ms
8.50 x PKP	0 ms
9.00 x PKP	0 ms
9.50 x PKP	0 ms
10.00 x PKP	0 ms
10.50 x PKP	0 ms
11.00 x PKP	0 ms
11.50 x PKP	0 ms
12.00 x PKP	0 ms
12.50 x PKP	0 ms
13.00 x PKP	0 ms
13.50 x PKP	0 ms
14.00 x PKP	0 ms
14.50 x PKP	0 ms
15.00 x PKP	0 ms
15.50 x PKP	0 ms
16.00 x PKP	0 ms
16.50 x PKP	0 ms
17.00 x PKP	0 ms
17.50 x PKP	0 ms
18.00 x PKP	0 ms
18.50 x PKP	0 ms
19.00 x PKP	0 ms
19.50 x PKP	0 ms
20.00 x PKP	0 ms

FLEXCURVE C

0.00 x PKP	0 ms
0.05 x PKP	0 ms
0.10 x PKP	0 ms
0.15 x PKP	0 ms
0.20 x PKP	0 ms
0.25 x PKP	0 ms
0.30 x PKP	0 ms
0.35 x PKP	0 ms
0.40 x PKP	0 ms
0.45 x PKP	0 ms
0.48 x PKP	0 ms
0.50 x PKP	0 ms
0.52 x PKP	0 ms
0.54 x PKP	0 ms
0.56 x PKP	0 ms
0.58 x PKP	0 ms
0.60 x PKP	0 ms
0.62 x PKP	0 ms
0.64 x PKP	0 ms
0.66 x PKP	0 ms
0.68 x PKP	0 ms
0.70 x PKP	0 ms
0.72 x PKP	0 ms
0.74 x PKP	0 ms
0.76 x PKP	0 ms
0.78 x PKP	0 ms
0.80 x PKP	0 ms
0.82 x PKP	0 ms

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXCURVE C (continued from last page)

0.84 x PKP	0 ms
0.86 x PKP	0 ms
0.88 x PKP	0 ms
0.90 x PKP	0 ms
0.91 x PKP	0 ms
0.92 x PKP	0 ms
0.93 x PKP	0 ms
0.94 x PKP	0 ms
0.95 x PKP	0 ms
0.96 x PKP	0 ms
0.97 x PKP	0 ms
0.98 x PKP	0 ms
1.03 x PKP	0 ms
1.05 x PKP	0 ms
1.10 x PKP	0 ms
1.20 x PKP	0 ms
1.30 x PKP	0 ms
1.40 x PKP	0 ms
1.50 x PKP	0 ms
1.60 x PKP	0 ms
1.70 x PKP	0 ms
1.80 x PKP	0 ms
1.90 x PKP	0 ms
2.00 x PKP	0 ms
2.10 x PKP	0 ms
2.20 x PKP	0 ms
2.30 x PKP	0 ms
2.40 x PKP	0 ms
2.50 x PKP	0 ms
2.60 x PKP	0 ms
2.70 x PKP	0 ms
2.80 x PKP	0 ms
2.90 x PKP	0 ms
3.00 x PKP	0 ms
3.10 x PKP	0 ms
3.20 x PKP	0 ms
3.30 x PKP	0 ms
3.40 x PKP	0 ms
3.50 x PKP	0 ms
3.60 x PKP	0 ms
3.70 x PKP	0 ms
3.80 x PKP	0 ms
3.90 x PKP	0 ms
4.00 x PKP	0 ms
4.10 x PKP	0 ms
4.20 x PKP	0 ms
4.30 x PKP	0 ms
4.40 x PKP	0 ms
4.50 x PKP	0 ms
4.60 x PKP	0 ms
4.70 x PKP	0 ms
4.80 x PKP	0 ms
4.90 x PKP	0 ms
5.00 x PKP	0 ms
5.10 x PKP	0 ms
5.20 x PKP	0 ms
5.30 x PKP	0 ms
5.40 x PKP	0 ms
5.50 x PKP	0 ms
5.60 x PKP	0 ms
5.70 x PKP	0 ms
5.80 x PKP	0 ms
5.90 x PKP	0 ms
6.00 x PKP	0 ms
6.50 x PKP	0 ms

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXCURVE C (continued from last page)

7.00 x PKP	0 ms
7.50 x PKP	0 ms
8.00 x PKP	0 ms
8.50 x PKP	0 ms
9.00 x PKP	0 ms
9.50 x PKP	0 ms
10.00 x PKP	0 ms
10.50 x PKP	0 ms
11.00 x PKP	0 ms
11.50 x PKP	0 ms
12.00 x PKP	0 ms
12.50 x PKP	0 ms
13.00 x PKP	0 ms
13.50 x PKP	0 ms
14.00 x PKP	0 ms
14.50 x PKP	0 ms
15.00 x PKP	0 ms
15.50 x PKP	0 ms
16.00 x PKP	0 ms
16.50 x PKP	0 ms
17.00 x PKP	0 ms
17.50 x PKP	0 ms
18.00 x PKP	0 ms
18.50 x PKP	0 ms
19.00 x PKP	0 ms
19.50 x PKP	0 ms
20.00 x PKP	0 ms

FLEXCURVE D

0.00 x PKP	0 ms
0.05 x PKP	0 ms
0.10 x PKP	0 ms
0.15 x PKP	0 ms
0.20 x PKP	0 ms
0.25 x PKP	0 ms
0.30 x PKP	0 ms
0.35 x PKP	0 ms
0.40 x PKP	0 ms
0.45 x PKP	0 ms
0.48 x PKP	0 ms
0.50 x PKP	0 ms
0.52 x PKP	0 ms
0.54 x PKP	0 ms
0.56 x PKP	0 ms
0.58 x PKP	0 ms
0.60 x PKP	0 ms
0.62 x PKP	0 ms
0.64 x PKP	0 ms
0.66 x PKP	0 ms
0.68 x PKP	0 ms
0.70 x PKP	0 ms
0.72 x PKP	0 ms
0.74 x PKP	0 ms
0.76 x PKP	0 ms
0.78 x PKP	0 ms
0.80 x PKP	0 ms
0.82 x PKP	0 ms
0.84 x PKP	0 ms
0.86 x PKP	0 ms
0.88 x PKP	0 ms
0.90 x PKP	0 ms
0.91 x PKP	0 ms
0.92 x PKP	0 ms
0.93 x PKP	0 ms
0.94 x PKP	0 ms

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXCURVE D (continued from last page)

0.95 x PKP	0 ms
0.96 x PKP	0 ms
0.97 x PKP	0 ms
0.98 x PKP	0 ms
1.03 x PKP	0 ms
1.05 x PKP	0 ms
1.10 x PKP	0 ms
1.20 x PKP	0 ms
1.30 x PKP	0 ms
1.40 x PKP	0 ms
1.50 x PKP	0 ms
1.60 x PKP	0 ms
1.70 x PKP	0 ms
1.80 x PKP	0 ms
1.90 x PKP	0 ms
2.00 x PKP	0 ms
2.10 x PKP	0 ms
2.20 x PKP	0 ms
2.30 x PKP	0 ms
2.40 x PKP	0 ms
2.50 x PKP	0 ms
2.60 x PKP	0 ms
2.70 x PKP	0 ms
2.80 x PKP	0 ms
2.90 x PKP	0 ms
3.00 x PKP	0 ms
3.10 x PKP	0 ms
3.20 x PKP	0 ms
3.30 x PKP	0 ms
3.40 x PKP	0 ms
3.50 x PKP	0 ms
3.60 x PKP	0 ms
3.70 x PKP	0 ms
3.80 x PKP	0 ms
3.90 x PKP	0 ms
4.00 x PKP	0 ms
4.10 x PKP	0 ms
4.20 x PKP	0 ms
4.30 x PKP	0 ms
4.40 x PKP	0 ms
4.50 x PKP	0 ms
4.60 x PKP	0 ms
4.70 x PKP	0 ms
4.80 x PKP	0 ms
4.90 x PKP	0 ms
5.00 x PKP	0 ms
5.10 x PKP	0 ms
5.20 x PKP	0 ms
5.30 x PKP	0 ms
5.40 x PKP	0 ms
5.50 x PKP	0 ms
5.60 x PKP	0 ms
5.70 x PKP	0 ms
5.80 x PKP	0 ms
5.90 x PKP	0 ms
6.00 x PKP	0 ms
6.50 x PKP	0 ms
7.00 x PKP	0 ms
7.50 x PKP	0 ms
8.00 x PKP	0 ms
8.50 x PKP	0 ms
9.00 x PKP	0 ms
9.50 x PKP	0 ms
10.00 x PKP	0 ms
10.50 x PKP	0 ms

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXCURVE D (continued from last page)

11.00 x PKP	0 ms
11.50 x PKP	0 ms
12.00 x PKP	0 ms
12.50 x PKP	0 ms
13.00 x PKP	0 ms
13.50 x PKP	0 ms
14.00 x PKP	0 ms
14.50 x PKP	0 ms
15.00 x PKP	0 ms
15.50 x PKP	0 ms
16.00 x PKP	0 ms
16.50 x PKP	0 ms
17.00 x PKP	0 ms
17.50 x PKP	0 ms
18.00 x PKP	0 ms
18.50 x PKP	0 ms
19.00 x PKP	0 ms
19.50 x PKP	0 ms
20.00 x PKP	0 ms

FLEXLOGIC

FLEXLOGIC EQUATION EDITOR

FlexLogic Entry 1	GND DIST Z1 OP
FlexLogic Entry 2	POSITIVE ONE SHOT
FlexLogic Entry 3	GND DIST Z2 PKP
FlexLogic Entry 4	POSITIVE ONE SHOT
FlexLogic Entry 5	GND DIST Z2 OP
FlexLogic Entry 6	POSITIVE ONE SHOT
FlexLogic Entry 7	GND DIST Z3 PKP
FlexLogic Entry 8	POSITIVE ONE SHOT
FlexLogic Entry 9	GND DIST Z3 OP
FlexLogic Entry 10	POSITIVE ONE SHOT
FlexLogic Entry 11	GND DIST Z4 PKP
FlexLogic Entry 12	POSITIVE ONE SHOT
FlexLogic Entry 13	GND DIST Z4 OP
FlexLogic Entry 14	POSITIVE ONE SHOT
FlexLogic Entry 15	GND DIST Z5 PKP
FlexLogic Entry 16	POSITIVE ONE SHOT
FlexLogic Entry 17	GND DIST Z5 OP
FlexLogic Entry 18	POSITIVE ONE SHOT
FlexLogic Entry 19	OR(9)
FlexLogic Entry 20	PH DIST Z1 OP
FlexLogic Entry 21	POSITIVE ONE SHOT
FlexLogic Entry 22	PH DIST Z2 PKP
FlexLogic Entry 23	POSITIVE ONE SHOT
FlexLogic Entry 24	PH DIST Z2 OP
FlexLogic Entry 25	POSITIVE ONE SHOT
FlexLogic Entry 26	PH DIST Z3 PKP
FlexLogic Entry 27	POSITIVE ONE SHOT
FlexLogic Entry 28	PH DIST Z3 OP
FlexLogic Entry 29	POSITIVE ONE SHOT
FlexLogic Entry 30	PH DIST Z4 PKP
FlexLogic Entry 31	POSITIVE ONE SHOT
FlexLogic Entry 32	PH DIST Z4 OP
FlexLogic Entry 33	POSITIVE ONE SHOT
FlexLogic Entry 34	PH DIST Z5 PKP
FlexLogic Entry 35	POSITIVE ONE SHOT
FlexLogic Entry 36	PH DIST Z5 OP
FlexLogic Entry 37	POSITIVE ONE SHOT
FlexLogic Entry 38	LINE PICKUP OP
FlexLogic Entry 39	POSITIVE ONE SHOT
FlexLogic Entry 40	POWER SWING UN/BLOCK
FlexLogic Entry 41	POSITIVE ONE SHOT
FlexLogic Entry 42	OR(11)
FlexLogic Entry 43	OR(2)

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXLOGIC EQUATION EDITOR (continued from last page)

FlexLogic Entry 44	= Osc Trigger (VO64)
FlexLogic Entry 45	SRC1 VT FUSE FAIL OP
FlexLogic Entry 46	POWER SWING UN/BLOCK
FlexLogic Entry 47	OR(2)
FlexLogic Entry 48	= 68 T/P fail (VO2)
FlexLogic Entry 49	Bloqueo 79 On(H1a)
FlexLogic Entry 50	Virt Ip 1 On (VI1)
FlexLogic Entry 51	AND(2)
FlexLogic Entry 52	= Bloq. 79 (VO3)
FlexLogic Entry 53	PH DIST Z2 PKP
FlexLogic Entry 54	GND DIST Z2 PKP
FlexLogic Entry 55	OR(2)
FlexLogic Entry 56	RX 85A ACON On(H3a)
FlexLogic Entry 57	Cont Ip 6 On(H3c)
FlexLogic Entry 58	OR(2)
FlexLogic Entry 59	AND(2)
FlexLogic Entry 60	= TRIP 85A (VO4)
FlexLogic Entry 61	TRIP 85A On (VO4)
FlexLogic Entry 62	NOT
FlexLogic Entry 63	= Virt Op 10 (VO6)
FlexLogic Entry 64	RX 85A ACON On(H3a)
FlexLogic Entry 65	Cont Ip 6 On(H3c)
FlexLogic Entry 66	52H3 Abierto On(H1c)
FlexLogic Entry 67	AND(3)
FlexLogic Entry 68	PH DIST Z1 PKP
FlexLogic Entry 69	GND DIST Z1 PKP
FlexLogic Entry 70	OR(2)
FlexLogic Entry 71	OR(2)
FlexLogic Entry 72	= Virt Op 9 (VO5)
FlexLogic Entry 73	SRC1 VT FUSE FAIL VOL LOSS
FlexLogic Entry 74	NOT
FlexLogic Entry 75	= VCA_OK (VO8)
FlexLogic Entry 76	52H3 Abierto On(H1c)
FlexLogic Entry 77	RX 85A ESP On(H5a)
FlexLogic Entry 78	RX 85A ACON On(H3a)
FlexLogic Entry 79	OR(2)
FlexLogic Entry 80	ECO OFF On (VO12)
FlexLogic Entry 81	NOT
FlexLogic Entry 82	AND(3)
FlexLogic Entry 83	= ECO (VO9)
FlexLogic Entry 84	ECO On (VO9)
FlexLogic Entry 85	HYBRID POTT TX1
FlexLogic Entry 86	OR(2)
FlexLogic Entry 87	= TX 85A (VO10)
FlexLogic Entry 88	RX 85A ACON On(H3a)
FlexLogic Entry 89	RX 85A ESP On(H5a)
FlexLogic Entry 90	AND(2)
FlexLogic Entry 91	= RX85A 2 PTA (VO11)
FlexLogic Entry 92	ECO On (VO9)
FlexLogic Entry 93	TIMER 1
FlexLogic Entry 94	= ECO OFF (VO12)
FlexLogic Entry 95	END
FlexLogic Entry 96	END
FlexLogic Entry 97	END
FlexLogic Entry 98	END
FlexLogic Entry 99	END
FlexLogic Entry 100	END
FlexLogic Entry 101	END
FlexLogic Entry 102	END
FlexLogic Entry 103	END
FlexLogic Entry 104	END
FlexLogic Entry 105	END
FlexLogic Entry 106	END
FlexLogic Entry 107	END
FlexLogic Entry 108	END

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXLOGIC EQUATION EDITOR (continued from last page)

FlexLogic Entry 109	END
FlexLogic Entry 110	END
FlexLogic Entry 111	END
FlexLogic Entry 112	END
FlexLogic Entry 113	END
FlexLogic Entry 114	END
FlexLogic Entry 115	END
FlexLogic Entry 116	END
FlexLogic Entry 117	END
FlexLogic Entry 118	END
FlexLogic Entry 119	END
FlexLogic Entry 120	END
FlexLogic Entry 121	END
FlexLogic Entry 122	END
FlexLogic Entry 123	END
FlexLogic Entry 124	END
FlexLogic Entry 125	END
FlexLogic Entry 126	END
FlexLogic Entry 127	END
FlexLogic Entry 128	END
FlexLogic Entry 129	END
FlexLogic Entry 130	END
FlexLogic Entry 131	END
FlexLogic Entry 132	END
FlexLogic Entry 133	END
FlexLogic Entry 134	END
FlexLogic Entry 135	END
FlexLogic Entry 136	END
FlexLogic Entry 137	END
FlexLogic Entry 138	END
FlexLogic Entry 139	END
FlexLogic Entry 140	END
FlexLogic Entry 141	END
FlexLogic Entry 142	END
FlexLogic Entry 143	END
FlexLogic Entry 144	END
FlexLogic Entry 145	END
FlexLogic Entry 146	END
FlexLogic Entry 147	END
FlexLogic Entry 148	END
FlexLogic Entry 149	END
FlexLogic Entry 150	END
FlexLogic Entry 151	END
FlexLogic Entry 152	END
FlexLogic Entry 153	END
FlexLogic Entry 154	END
FlexLogic Entry 155	END
FlexLogic Entry 156	END
FlexLogic Entry 157	END
FlexLogic Entry 158	END
FlexLogic Entry 159	END
FlexLogic Entry 160	END
FlexLogic Entry 161	END
FlexLogic Entry 162	END
FlexLogic Entry 163	END
FlexLogic Entry 164	END
FlexLogic Entry 165	END
FlexLogic Entry 166	END
FlexLogic Entry 167	END
FlexLogic Entry 168	END
FlexLogic Entry 169	END
FlexLogic Entry 170	END
FlexLogic Entry 171	END
FlexLogic Entry 172	END
FlexLogic Entry 173	END

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXLOGIC EQUATION EDITOR (continued from last page)

FlexLogic Entry 174	END
FlexLogic Entry 175	END
FlexLogic Entry 176	END
FlexLogic Entry 177	END
FlexLogic Entry 178	END
FlexLogic Entry 179	END
FlexLogic Entry 180	END
FlexLogic Entry 181	END
FlexLogic Entry 182	END
FlexLogic Entry 183	END
FlexLogic Entry 184	END
FlexLogic Entry 185	END
FlexLogic Entry 186	END
FlexLogic Entry 187	END
FlexLogic Entry 188	END
FlexLogic Entry 189	END
FlexLogic Entry 190	END
FlexLogic Entry 191	END
FlexLogic Entry 192	END
FlexLogic Entry 193	END
FlexLogic Entry 194	END
FlexLogic Entry 195	END
FlexLogic Entry 196	END
FlexLogic Entry 197	END
FlexLogic Entry 198	END
FlexLogic Entry 199	END
FlexLogic Entry 200	END
FlexLogic Entry 201	END
FlexLogic Entry 202	END
FlexLogic Entry 203	END
FlexLogic Entry 204	END
FlexLogic Entry 205	END
FlexLogic Entry 206	END
FlexLogic Entry 207	END
FlexLogic Entry 208	END
FlexLogic Entry 209	END
FlexLogic Entry 210	END
FlexLogic Entry 211	END
FlexLogic Entry 212	END
FlexLogic Entry 213	END
FlexLogic Entry 214	END
FlexLogic Entry 215	END
FlexLogic Entry 216	END
FlexLogic Entry 217	END
FlexLogic Entry 218	END
FlexLogic Entry 219	END
FlexLogic Entry 220	END
FlexLogic Entry 221	END
FlexLogic Entry 222	END
FlexLogic Entry 223	END
FlexLogic Entry 224	END
FlexLogic Entry 225	END
FlexLogic Entry 226	END
FlexLogic Entry 227	END
FlexLogic Entry 228	END
FlexLogic Entry 229	END
FlexLogic Entry 230	END
FlexLogic Entry 231	END
FlexLogic Entry 232	END
FlexLogic Entry 233	END
FlexLogic Entry 234	END
FlexLogic Entry 235	END
FlexLogic Entry 236	END
FlexLogic Entry 237	END
FlexLogic Entry 238	END

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXLOGIC EQUATION EDITOR (continued from last page)

FlexLogic Entry 239	END
FlexLogic Entry 240	END
FlexLogic Entry 241	END
FlexLogic Entry 242	END
FlexLogic Entry 243	END
FlexLogic Entry 244	END
FlexLogic Entry 245	END
FlexLogic Entry 246	END
FlexLogic Entry 247	END
FlexLogic Entry 248	END
FlexLogic Entry 249	END
FlexLogic Entry 250	END
FlexLogic Entry 251	END
FlexLogic Entry 252	END
FlexLogic Entry 253	END
FlexLogic Entry 254	END
FlexLogic Entry 255	END
FlexLogic Entry 256	END
FlexLogic Entry 257	END
FlexLogic Entry 258	END
FlexLogic Entry 259	END
FlexLogic Entry 260	END
FlexLogic Entry 261	END
FlexLogic Entry 262	END
FlexLogic Entry 263	END
FlexLogic Entry 264	END
FlexLogic Entry 265	END
FlexLogic Entry 266	END
FlexLogic Entry 267	END
FlexLogic Entry 268	END
FlexLogic Entry 269	END
FlexLogic Entry 270	END
FlexLogic Entry 271	END
FlexLogic Entry 272	END
FlexLogic Entry 273	END
FlexLogic Entry 274	END
FlexLogic Entry 275	END
FlexLogic Entry 276	END
FlexLogic Entry 277	END
FlexLogic Entry 278	END
FlexLogic Entry 279	END
FlexLogic Entry 280	END
FlexLogic Entry 281	END
FlexLogic Entry 282	END
FlexLogic Entry 283	END
FlexLogic Entry 284	END
FlexLogic Entry 285	END
FlexLogic Entry 286	END
FlexLogic Entry 287	END
FlexLogic Entry 288	END
FlexLogic Entry 289	END
FlexLogic Entry 290	END
FlexLogic Entry 291	END
FlexLogic Entry 292	END
FlexLogic Entry 293	END
FlexLogic Entry 294	END
FlexLogic Entry 295	END
FlexLogic Entry 296	END
FlexLogic Entry 297	END
FlexLogic Entry 298	END
FlexLogic Entry 299	END
FlexLogic Entry 300	END
FlexLogic Entry 301	END
FlexLogic Entry 302	END
FlexLogic Entry 303	END

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXLOGIC EQUATION EDITOR (continued from last page)

FlexLogic Entry 304	END
FlexLogic Entry 305	END
FlexLogic Entry 306	END
FlexLogic Entry 307	END
FlexLogic Entry 308	END
FlexLogic Entry 309	END
FlexLogic Entry 310	END
FlexLogic Entry 311	END
FlexLogic Entry 312	END
FlexLogic Entry 313	END
FlexLogic Entry 314	END
FlexLogic Entry 315	END
FlexLogic Entry 316	END
FlexLogic Entry 317	END
FlexLogic Entry 318	END
FlexLogic Entry 319	END
FlexLogic Entry 320	END
FlexLogic Entry 321	END
FlexLogic Entry 322	END
FlexLogic Entry 323	END
FlexLogic Entry 324	END
FlexLogic Entry 325	END
FlexLogic Entry 326	END
FlexLogic Entry 327	END
FlexLogic Entry 328	END
FlexLogic Entry 329	END
FlexLogic Entry 330	END
FlexLogic Entry 331	END
FlexLogic Entry 332	END
FlexLogic Entry 333	END
FlexLogic Entry 334	END
FlexLogic Entry 335	END
FlexLogic Entry 336	END
FlexLogic Entry 337	END
FlexLogic Entry 338	END
FlexLogic Entry 339	END
FlexLogic Entry 340	END
FlexLogic Entry 341	END
FlexLogic Entry 342	END
FlexLogic Entry 343	END
FlexLogic Entry 344	END
FlexLogic Entry 345	END
FlexLogic Entry 346	END
FlexLogic Entry 347	END
FlexLogic Entry 348	END
FlexLogic Entry 349	END
FlexLogic Entry 350	END
FlexLogic Entry 351	END
FlexLogic Entry 352	END
FlexLogic Entry 353	END
FlexLogic Entry 354	END
FlexLogic Entry 355	END
FlexLogic Entry 356	END
FlexLogic Entry 357	END
FlexLogic Entry 358	END
FlexLogic Entry 359	END
FlexLogic Entry 360	END
FlexLogic Entry 361	END
FlexLogic Entry 362	END
FlexLogic Entry 363	END
FlexLogic Entry 364	END
FlexLogic Entry 365	END
FlexLogic Entry 366	END
FlexLogic Entry 367	END
FlexLogic Entry 368	END

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXLOGIC EQUATION EDITOR (continued from last page)

FlexLogic Entry 369	END
FlexLogic Entry 370	END
FlexLogic Entry 371	END
FlexLogic Entry 372	END
FlexLogic Entry 373	END
FlexLogic Entry 374	END
FlexLogic Entry 375	END
FlexLogic Entry 376	END
FlexLogic Entry 377	END
FlexLogic Entry 378	END
FlexLogic Entry 379	END
FlexLogic Entry 380	END
FlexLogic Entry 381	END
FlexLogic Entry 382	END
FlexLogic Entry 383	END
FlexLogic Entry 384	END
FlexLogic Entry 385	END
FlexLogic Entry 386	END
FlexLogic Entry 387	END
FlexLogic Entry 388	END
FlexLogic Entry 389	END
FlexLogic Entry 390	END
FlexLogic Entry 391	END
FlexLogic Entry 392	END
FlexLogic Entry 393	END
FlexLogic Entry 394	END
FlexLogic Entry 395	END
FlexLogic Entry 396	END
FlexLogic Entry 397	END
FlexLogic Entry 398	END
FlexLogic Entry 399	END
FlexLogic Entry 400	END
FlexLogic Entry 401	END
FlexLogic Entry 402	END
FlexLogic Entry 403	END
FlexLogic Entry 404	END
FlexLogic Entry 405	END
FlexLogic Entry 406	END
FlexLogic Entry 407	END
FlexLogic Entry 408	END
FlexLogic Entry 409	END
FlexLogic Entry 410	END
FlexLogic Entry 411	END
FlexLogic Entry 412	END
FlexLogic Entry 413	END
FlexLogic Entry 414	END
FlexLogic Entry 415	END
FlexLogic Entry 416	END
FlexLogic Entry 417	END
FlexLogic Entry 418	END
FlexLogic Entry 419	END
FlexLogic Entry 420	END
FlexLogic Entry 421	END
FlexLogic Entry 422	END
FlexLogic Entry 423	END
FlexLogic Entry 424	END
FlexLogic Entry 425	END
FlexLogic Entry 426	END
FlexLogic Entry 427	END
FlexLogic Entry 428	END
FlexLogic Entry 429	END
FlexLogic Entry 430	END
FlexLogic Entry 431	END
FlexLogic Entry 432	END
FlexLogic Entry 433	END

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXLOGIC EQUATION EDITOR (continued from last page)

FlexLogic Entry 434	END
FlexLogic Entry 435	END
FlexLogic Entry 436	END
FlexLogic Entry 437	END
FlexLogic Entry 438	END
FlexLogic Entry 439	END
FlexLogic Entry 440	END
FlexLogic Entry 441	END
FlexLogic Entry 442	END
FlexLogic Entry 443	END
FlexLogic Entry 444	END
FlexLogic Entry 445	END
FlexLogic Entry 446	END
FlexLogic Entry 447	END
FlexLogic Entry 448	END
FlexLogic Entry 449	END
FlexLogic Entry 450	END
FlexLogic Entry 451	END
FlexLogic Entry 452	END
FlexLogic Entry 453	END
FlexLogic Entry 454	END
FlexLogic Entry 455	END
FlexLogic Entry 456	END
FlexLogic Entry 457	END
FlexLogic Entry 458	END
FlexLogic Entry 459	END
FlexLogic Entry 460	END
FlexLogic Entry 461	END
FlexLogic Entry 462	END
FlexLogic Entry 463	END
FlexLogic Entry 464	END
FlexLogic Entry 465	END
FlexLogic Entry 466	END
FlexLogic Entry 467	END
FlexLogic Entry 468	END
FlexLogic Entry 469	END
FlexLogic Entry 470	END
FlexLogic Entry 471	END
FlexLogic Entry 472	END
FlexLogic Entry 473	END
FlexLogic Entry 474	END
FlexLogic Entry 475	END
FlexLogic Entry 476	END
FlexLogic Entry 477	END
FlexLogic Entry 478	END
FlexLogic Entry 479	END
FlexLogic Entry 480	END
FlexLogic Entry 481	END
FlexLogic Entry 482	END
FlexLogic Entry 483	END
FlexLogic Entry 484	END
FlexLogic Entry 485	END
FlexLogic Entry 486	END
FlexLogic Entry 487	END
FlexLogic Entry 488	END
FlexLogic Entry 489	END
FlexLogic Entry 490	END
FlexLogic Entry 491	END
FlexLogic Entry 492	END
FlexLogic Entry 493	END
FlexLogic Entry 494	END
FlexLogic Entry 495	END
FlexLogic Entry 496	END
FlexLogic Entry 497	END
FlexLogic Entry 498	END

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S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXLOGIC EQUATION EDITOR (continued from last page)

FlexLogic Entry 499	END
FlexLogic Entry 500	END
FlexLogic Entry 501	END
FlexLogic Entry 502	END
FlexLogic Entry 503	END
FlexLogic Entry 504	END
FlexLogic Entry 505	END
FlexLogic Entry 506	END
FlexLogic Entry 507	END
FlexLogic Entry 508	END
FlexLogic Entry 509	END
FlexLogic Entry 510	END
FlexLogic Entry 511	END
FlexLogic Entry 512	END

FLEXLOGIC TIMERS

Timer 1: Type	millisecond
Timer 1: Pickup Delay	100
Timer 1: Dropout Delay	1000
Timer 2: Type	millisecond
Timer 2: Pickup Delay	0
Timer 2: Dropout Delay	0
Timer 3: Type	millisecond
Timer 3: Pickup Delay	0
Timer 3: Dropout Delay	0
Timer 4: Type	millisecond
Timer 4: Pickup Delay	0
Timer 4: Dropout Delay	0
Timer 5: Type	millisecond
Timer 5: Pickup Delay	0
Timer 5: Dropout Delay	0
Timer 6: Type	millisecond
Timer 6: Pickup Delay	0
Timer 6: Dropout Delay	0
Timer 7: Type	millisecond
Timer 7: Pickup Delay	0
Timer 7: Dropout Delay	0
Timer 8: Type	millisecond
Timer 8: Pickup Delay	0
Timer 8: Dropout Delay	0
Timer 9: Type	millisecond
Timer 9: Pickup Delay	0
Timer 9: Dropout Delay	0
Timer 10: Type	millisecond
Timer 10: Pickup Delay	0
Timer 10: Dropout Delay	0
Timer 11: Type	millisecond
Timer 11: Pickup Delay	0
Timer 11: Dropout Delay	0
Timer 12: Type	millisecond
Timer 12: Pickup Delay	0
Timer 12: Dropout Delay	0
Timer 13: Type	millisecond
Timer 13: Pickup Delay	0
Timer 13: Dropout Delay	0
Timer 14: Type	millisecond
Timer 14: Pickup Delay	0
Timer 14: Dropout Delay	0
Timer 15: Type	millisecond
Timer 15: Pickup Delay	0
Timer 15: Dropout Delay	0
Timer 16: Type	millisecond
Timer 16: Pickup Delay	0
Timer 16: Dropout Delay	0
Timer 17: Type	millisecond

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S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
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VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXLOGIC TIMERS (continued from last page)

Timer 17: Pickup Delay	0
Timer 17: Dropout Delay	0
Timer 18: Type	millisecond
Timer 18: Pickup Delay	0
Timer 18: Dropout Delay	0
Timer 19: Type	millisecond
Timer 19: Pickup Delay	0
Timer 19: Dropout Delay	0
Timer 20: Type	millisecond
Timer 20: Pickup Delay	0
Timer 20: Dropout Delay	0
Timer 21: Type	millisecond
Timer 21: Pickup Delay	0
Timer 21: Dropout Delay	0
Timer 22: Type	millisecond
Timer 22: Pickup Delay	0
Timer 22: Dropout Delay	0
Timer 23: Type	millisecond
Timer 23: Pickup Delay	0
Timer 23: Dropout Delay	0
Timer 24: Type	millisecond
Timer 24: Pickup Delay	0
Timer 24: Dropout Delay	0
Timer 25: Type	millisecond
Timer 25: Pickup Delay	0
Timer 25: Dropout Delay	0
Timer 26: Type	millisecond
Timer 26: Pickup Delay	0
Timer 26: Dropout Delay	0
Timer 27: Type	millisecond
Timer 27: Pickup Delay	0
Timer 27: Dropout Delay	0
Timer 28: Type	millisecond
Timer 28: Pickup Delay	0
Timer 28: Dropout Delay	0
Timer 29: Type	millisecond
Timer 29: Pickup Delay	0
Timer 29: Dropout Delay	0
Timer 30: Type	millisecond
Timer 30: Pickup Delay	0
Timer 30: Dropout Delay	0
Timer 31: Type	millisecond
Timer 31: Pickup Delay	0
Timer 31: Dropout Delay	0
Timer 32: Type	millisecond
Timer 32: Pickup Delay	0
Timer 32: Dropout Delay	0

FLEXELEMENTS

FLEXELEMENTS 1: Function	Disabled
FLEXELEMENTS 1: Name	FxE 1
FLEXELEMENTS 1: InputPlus	OFF
FLEXELEMENTS 1: InputMinus	OFF
FLEXELEMENTS 1: InputMode	SIGNED
FLEXELEMENTS 1: Compare Mode	LEVEL
FLEXELEMENTS 1: Direction Type	OVER
FLEXELEMENTS 1: Pickup	1.000 pu
FLEXELEMENTS 1: Hysteresis	3.0 %
FLEXELEMENTS 1: DeltaTUnits	Milliseconds
FLEXELEMENTS 1: DeltaT	20
FLEXELEMENTS 1: Pickup Delay	0.000 s
FLEXELEMENTS 1: Reset Delay	0.000 s
FLEXELEMENTS 1: Block	OFF
FLEXELEMENTS 1: Target	Self-reset
FLEXELEMENTS 1: Events	Disabled

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXELEMENTS (continued from last page)

FLEXELEMENTS 2: Function	Disabled
FLEXELEMENTS 2: Name	FxE 2
FLEXELEMENTS 2: InputPlus	OFF
FLEXELEMENTS 2: InputMinus	OFF
FLEXELEMENTS 2: InputMode	SIGNED
FLEXELEMENTS 2: Compare Mode	LEVEL
FLEXELEMENTS 2: Direction Type	OVER
FLEXELEMENTS 2: Pickup	1.000 pu
FLEXELEMENTS 2: Hysteresis	3.0 %
FLEXELEMENTS 2: DeltaTUnits	Milliseconds
FLEXELEMENTS 2: DeltaT	20
FLEXELEMENTS 2: Pickup Delay	0.000 s
FLEXELEMENTS 2: Reset Delay	0.000 s
FLEXELEMENTS 2: Block	OFF
FLEXELEMENTS 2: Target	Self-reset
FLEXELEMENTS 2: Events	Disabled
FLEXELEMENTS 3: Function	Disabled
FLEXELEMENTS 3: Name	FxE 3
FLEXELEMENTS 3: InputPlus	OFF
FLEXELEMENTS 3: InputMinus	OFF
FLEXELEMENTS 3: InputMode	SIGNED
FLEXELEMENTS 3: Compare Mode	LEVEL
FLEXELEMENTS 3: Direction Type	OVER
FLEXELEMENTS 3: Pickup	1.000 pu
FLEXELEMENTS 3: Hysteresis	3.0 %
FLEXELEMENTS 3: DeltaTUnits	Milliseconds
FLEXELEMENTS 3: DeltaT	20
FLEXELEMENTS 3: Pickup Delay	0.000 s
FLEXELEMENTS 3: Reset Delay	0.000 s
FLEXELEMENTS 3: Block	OFF
FLEXELEMENTS 3: Target	Self-reset
FLEXELEMENTS 3: Events	Disabled
FLEXELEMENTS 4: Function	Disabled
FLEXELEMENTS 4: Name	FxE 4
FLEXELEMENTS 4: InputPlus	OFF
FLEXELEMENTS 4: InputMinus	OFF
FLEXELEMENTS 4: InputMode	SIGNED
FLEXELEMENTS 4: Compare Mode	LEVEL
FLEXELEMENTS 4: Direction Type	OVER
FLEXELEMENTS 4: Pickup	1.000 pu
FLEXELEMENTS 4: Hysteresis	3.0 %
FLEXELEMENTS 4: DeltaTUnits	Milliseconds
FLEXELEMENTS 4: DeltaT	20
FLEXELEMENTS 4: Pickup Delay	0.000 s
FLEXELEMENTS 4: Reset Delay	0.000 s
FLEXELEMENTS 4: Block	OFF
FLEXELEMENTS 4: Target	Self-reset
FLEXELEMENTS 4: Events	Disabled
FLEXELEMENTS 5: Function	Disabled
FLEXELEMENTS 5: Name	FxE 5
FLEXELEMENTS 5: InputPlus	OFF
FLEXELEMENTS 5: InputMinus	OFF
FLEXELEMENTS 5: InputMode	SIGNED
FLEXELEMENTS 5: Compare Mode	LEVEL
FLEXELEMENTS 5: Direction Type	OVER
FLEXELEMENTS 5: Pickup	1.000 pu
FLEXELEMENTS 5: Hysteresis	3.0 %
FLEXELEMENTS 5: DeltaTUnits	Milliseconds
FLEXELEMENTS 5: DeltaT	20
FLEXELEMENTS 5: Pickup Delay	0.000 s
FLEXELEMENTS 5: Reset Delay	0.000 s
FLEXELEMENTS 5: Block	OFF
FLEXELEMENTS 5: Target	Self-reset
FLEXELEMENTS 5: Events	Disabled
FLEXELEMENTS 6: Function	Disabled

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

FLEXELEMENTS (continued from last page)

FLEXELEMENTS 6: Name	FxE 6
FLEXELEMENTS 6: InputPlus	OFF
FLEXELEMENTS 6: InputMinus	OFF
FLEXELEMENTS 6: InputMode	SIGNED
FLEXELEMENTS 6: Compare Mode	LEVEL
FLEXELEMENTS 6: Direction Type	OVER
FLEXELEMENTS 6: Pickup	1.000 pu
FLEXELEMENTS 6: Hysteresis	3.0 %
FLEXELEMENTS 6: DeltaTUnits	Milliseconds
FLEXELEMENTS 6: DeltaT	20
FLEXELEMENTS 6: Pickup Delay	0.000 s
FLEXELEMENTS 6: Reset Delay	0.000 s
FLEXELEMENTS 6: Block	OFF
FLEXELEMENTS 6: Target	Self-reset
FLEXELEMENTS 6: Events	Disabled
FLEXELEMENTS 7: Function	Disabled
FLEXELEMENTS 7: Name	FxE 7
FLEXELEMENTS 7: InputPlus	OFF
FLEXELEMENTS 7: InputMinus	OFF
FLEXELEMENTS 7: InputMode	SIGNED
FLEXELEMENTS 7: Compare Mode	LEVEL
FLEXELEMENTS 7: Direction Type	OVER
FLEXELEMENTS 7: Pickup	1.000 pu
FLEXELEMENTS 7: Hysteresis	3.0 %
FLEXELEMENTS 7: DeltaTUnits	Milliseconds
FLEXELEMENTS 7: DeltaT	20
FLEXELEMENTS 7: Pickup Delay	0.000 s
FLEXELEMENTS 7: Reset Delay	0.000 s
FLEXELEMENTS 7: Block	OFF
FLEXELEMENTS 7: Target	Self-reset
FLEXELEMENTS 7: Events	Disabled
FLEXELEMENTS 8: Function	Disabled
FLEXELEMENTS 8: Name	FxE 8
FLEXELEMENTS 8: InputPlus	OFF
FLEXELEMENTS 8: InputMinus	OFF
FLEXELEMENTS 8: InputMode	SIGNED
FLEXELEMENTS 8: Compare Mode	LEVEL
FLEXELEMENTS 8: Direction Type	OVER
FLEXELEMENTS 8: Pickup	1.000 pu
FLEXELEMENTS 8: Hysteresis	3.0 %
FLEXELEMENTS 8: DeltaTUnits	Milliseconds
FLEXELEMENTS 8: DeltaT	20
FLEXELEMENTS 8: Pickup Delay	0.000 s
FLEXELEMENTS 8: Reset Delay	0.000 s
FLEXELEMENTS 8: Block	OFF
FLEXELEMENTS 8: Target	Self-reset
FLEXELEMENTS 8: Events	Disabled

NON-VOLATILE LATCHES

LATCH 1: Function	Disabled
LATCH 1: Type	Reset Dominant
LATCH 1: Set	OFF
LATCH 1: Reset	OFF
LATCH 1: Target	Self-reset
LATCH 1: Events	Disabled
LATCH 2: Function	Disabled
LATCH 2: Type	Reset Dominant
LATCH 2: Set	OFF
LATCH 2: Reset	OFF
LATCH 2: Target	Self-reset
LATCH 2: Events	Disabled
LATCH 3: Function	Disabled
LATCH 3: Type	Reset Dominant
LATCH 3: Set	OFF
LATCH 3: Reset	OFF

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S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

NON-VOLATILE LATCHES (continued from last page)

LATCH 3: Target	Self-reset
LATCH 3: Events	Disabled
LATCH 4: Function	Disabled
LATCH 4: Type	Reset Dominant
LATCH 4: Set	OFF
LATCH 4: Reset	OFF
LATCH 4: Target	Self-reset
LATCH 4: Events	Disabled
LATCH 5: Function	Disabled
LATCH 5: Type	Reset Dominant
LATCH 5: Set	OFF
LATCH 5: Reset	OFF
LATCH 5: Target	Self-reset
LATCH 5: Events	Disabled
LATCH 6: Function	Disabled
LATCH 6: Type	Reset Dominant
LATCH 6: Set	OFF
LATCH 6: Reset	OFF
LATCH 6: Target	Self-reset
LATCH 6: Events	Disabled
LATCH 7: Function	Disabled
LATCH 7: Type	Reset Dominant
LATCH 7: Set	OFF
LATCH 7: Reset	OFF
LATCH 7: Target	Self-reset
LATCH 7: Events	Disabled
LATCH 8: Function	Disabled
LATCH 8: Type	Reset Dominant
LATCH 8: Set	OFF
LATCH 8: Reset	OFF
LATCH 8: Target	Self-reset
LATCH 8: Events	Disabled
LATCH 9: Function	Disabled
LATCH 9: Type	Reset Dominant
LATCH 9: Set	OFF
LATCH 9: Reset	OFF
LATCH 9: Target	Self-reset
LATCH 9: Events	Disabled
LATCH 10: Function	Disabled
LATCH 10: Type	Reset Dominant
LATCH 10: Set	OFF
LATCH 10: Reset	OFF
LATCH 10: Target	Self-reset
LATCH 10: Events	Disabled
LATCH 11: Function	Disabled
LATCH 11: Type	Reset Dominant
LATCH 11: Set	OFF
LATCH 11: Reset	OFF
LATCH 11: Target	Self-reset
LATCH 11: Events	Disabled
LATCH 12: Function	Disabled
LATCH 12: Type	Reset Dominant
LATCH 12: Set	OFF
LATCH 12: Reset	OFF
LATCH 12: Target	Self-reset
LATCH 12: Events	Disabled
LATCH 13: Function	Disabled
LATCH 13: Type	Reset Dominant
LATCH 13: Set	OFF
LATCH 13: Reset	OFF
LATCH 13: Target	Self-reset
LATCH 13: Events	Disabled
LATCH 14: Function	Disabled
LATCH 14: Type	Reset Dominant
LATCH 14: Set	OFF

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
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ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

NON-VOLATILE LATCHES (continued from last page)

LATCH 14: Reset	OFF
LATCH 14: Target	Self-reset
LATCH 14: Events	Disabled
LATCH 15: Function	Disabled
LATCH 15: Type	Reset Dominant
LATCH 15: Set	OFF
LATCH 15: Reset	OFF
LATCH 15: Target	Self-reset
LATCH 15: Events	Disabled
LATCH 16: Function	Disabled
LATCH 16: Type	Reset Dominant
LATCH 16: Set	OFF
LATCH 16: Reset	OFF
LATCH 16: Target	Self-reset
LATCH 16: Events	Disabled

GROUPED ELEMENTS
GROUP 1

LINE PICKUP [GROUP 1]

Function	Enabled
Signal Source	Barra (SRC 1)
Phase IOC Line Pickup	2.500 pu
UV Pickup	0.700 pu
Line End Open Pickup Delay	0.150 s
Line End Open Reset Delay	0.090 s
OV Pickup Delay	0.040 s
Autoreclose Coordination Bypass	Disabled
Autoreclose Coordination Pickup Delay	0.045 s
Autoreclose Coordination Reset Delay	0.005 s
Terminal Open	OFF
AR Accelerate	OFF
Distance Trip	Enabled
Block	OFF
Target	Self-reset
Events	Enabled

DISTANCE

DISTANCE [GROUP 1]

Source	Barra (SRC 1)
Memory Duration	10 cycles
Force Self-Polar	OFF
Force Mem-Polar	OFF

PHASE DISTANCE [GROUP 1]

PHASE DISTANCE Z1: Function	Enabled
PHASE DISTANCE Z1: Direction	Forward
PHASE DISTANCE Z1: Shape	Mho
PHASE DISTANCE Z1: Xfmr Vol Connection	None
PHASE DISTANCE Z1: Xfmr Curr Connection	None
PHASE DISTANCE Z1: Reach	0.24 ohms
PHASE DISTANCE Z1: RCA	68 deg
PHASE DISTANCE Z1: Rev Reach	0.27 ohms
PHASE DISTANCE Z1: Rev Reach RCA	85 deg
PHASE DISTANCE Z1: Comp Limit	90 deg
PHASE DISTANCE Z1: DIR RCA	68 deg
PHASE DISTANCE Z1: DIR Comp Limit	90 deg
PHASE DISTANCE Z1: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z1: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z1: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z1: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z1: Supervision	0.200 pu
PHASE DISTANCE Z1: Volt Level	0.000 pu
PHASE DISTANCE Z1: Delay	0.000 s
PHASE DISTANCE Z1: Block	68 T/P fail On (VO2)
PHASE DISTANCE Z1: Target	Self-reset

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VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

PHASE DISTANCE [GROUP 1] (continued from last page)

PHASE DISTANCE Z1: Events	Enabled
PHASE DISTANCE Z2: Function	Enabled
PHASE DISTANCE Z2: Direction	Forward
PHASE DISTANCE Z2: Shape	Mho
PHASE DISTANCE Z2: Xfmr Vol Connection	None
PHASE DISTANCE Z2: Xfmr Curr Connection	None
PHASE DISTANCE Z2: Reach	2.79 ohms
PHASE DISTANCE Z2: RCA	68 deg
PHASE DISTANCE Z2: Rev Reach	2.00 ohms
PHASE DISTANCE Z2: Rev Reach RCA	85 deg
PHASE DISTANCE Z2: Comp Limit	90 deg
PHASE DISTANCE Z2: DIR RCA	68 deg
PHASE DISTANCE Z2: DIR Comp Limit	90 deg
PHASE DISTANCE Z2: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z2: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z2: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z2: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z2: Supervision	0.200 pu
PHASE DISTANCE Z2: Volt Level	0.000 pu
PHASE DISTANCE Z2: Delay	0.700 s
PHASE DISTANCE Z2: Block	68 T/P fail On (VO2)
PHASE DISTANCE Z2: Target	Self-reset
PHASE DISTANCE Z2: Events	Enabled
PHASE DISTANCE Z3: Function	Enabled
PHASE DISTANCE Z3: Direction	Forward
PHASE DISTANCE Z3: Shape	Mho
PHASE DISTANCE Z3: Xfmr Vol Connection	None
PHASE DISTANCE Z3: Xfmr Curr Connection	None
PHASE DISTANCE Z3: Reach	0.37 ohms
PHASE DISTANCE Z3: RCA	68 deg
PHASE DISTANCE Z3: Rev Reach	2.00 ohms
PHASE DISTANCE Z3: Rev Reach RCA	85 deg
PHASE DISTANCE Z3: Comp Limit	90 deg
PHASE DISTANCE Z3: DIR RCA	68 deg
PHASE DISTANCE Z3: DIR Comp Limit	90 deg
PHASE DISTANCE Z3: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z3: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z3: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z3: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z3: Supervision	0.200 pu
PHASE DISTANCE Z3: Volt Level	0.000 pu
PHASE DISTANCE Z3: Delay	0.400 s
PHASE DISTANCE Z3: Block	68 T/P fail On (VO2)
PHASE DISTANCE Z3: Target	Self-reset
PHASE DISTANCE Z3: Events	Enabled
PHASE DISTANCE Z4: Function	Enabled
PHASE DISTANCE Z4: Direction	Reverse
PHASE DISTANCE Z4: Shape	Mho
PHASE DISTANCE Z4: Xfmr Vol Connection	None
PHASE DISTANCE Z4: Xfmr Curr Connection	None
PHASE DISTANCE Z4: Reach	11.50 ohms
PHASE DISTANCE Z4: RCA	68 deg
PHASE DISTANCE Z4: Rev Reach	2.00 ohms
PHASE DISTANCE Z4: Rev Reach RCA	85 deg
PHASE DISTANCE Z4: Comp Limit	90 deg
PHASE DISTANCE Z4: DIR RCA	68 deg
PHASE DISTANCE Z4: DIR Comp Limit	90 deg
PHASE DISTANCE Z4: Quad Right Blinder	9.99 ohms
PHASE DISTANCE Z4: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z4: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z4: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z4: Supervision	0.200 pu
PHASE DISTANCE Z4: Volt Level	0.000 pu
PHASE DISTANCE Z4: Delay	2.200 s
PHASE DISTANCE Z4: Block	68 T/P fail On (VO2)

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S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
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VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

PHASE DISTANCE [GROUP 1] (continued from last page)

PHASE DISTANCE Z4: Target	Self-reset
PHASE DISTANCE Z4: Events	Enabled
PHASE DISTANCE Z5: Function	Disabled
PHASE DISTANCE Z5: Direction	Forward
PHASE DISTANCE Z5: Shape	Mho
PHASE DISTANCE Z5: Xfmr Vol Connection	None
PHASE DISTANCE Z5: Xfmr Curr Connection	None
PHASE DISTANCE Z5: Reach	2.00 ohms
PHASE DISTANCE Z5: RCA	85 deg
PHASE DISTANCE Z5: Rev Reach	2.00 ohms
PHASE DISTANCE Z5: Rev Reach RCA	85 deg
PHASE DISTANCE Z5: Comp Limit	90 deg
PHASE DISTANCE Z5: DIR RCA	85 deg
PHASE DISTANCE Z5: DIR Comp Limit	90 deg
PHASE DISTANCE Z5: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z5: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z5: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z5: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z5: Supervision	0.200 pu
PHASE DISTANCE Z5: Volt Level	0.000 pu
PHASE DISTANCE Z5: Delay	0.000 s
PHASE DISTANCE Z5: Block	OFF
PHASE DISTANCE Z5: Target	Self-reset
PHASE DISTANCE Z5: Events	Disabled

GROUND DISTANCE [GROUP 1]

GROUND DISTANCE Z1: Function	Enabled
GROUND DISTANCE Z1: Direction	Forward
GROUND DISTANCE Z1: Shape	Quad
GROUND DISTANCE Z1: Z0/Z1 Mag	5.16
GROUND DISTANCE Z1: Z0/Z1 Ang	13 deg
GROUND DISTANCE Z1: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z1: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z1: Reach	0.24 ohms
GROUND DISTANCE Z1: RCA	68 deg
GROUND DISTANCE Z1: Rev Reach	2.00 ohms
GROUND DISTANCE Z1: Rev Reach RCA	85 deg
GROUND DISTANCE Z1: POL Current	Zero-seq
GROUND DISTANCE Z1: Non-Homogen Ang	-3.0 deg
GROUND DISTANCE Z1: Comp Limit	90 deg
GROUND DISTANCE Z1: DIR RCA	68 deg
GROUND DISTANCE Z1: DIR Comp Limit	90 deg
GROUND DISTANCE Z1: Quad Right Blinder	0.66 ohms
GROUND DISTANCE Z1: Quad Right Blinder RCA	68 deg
GROUND DISTANCE Z1: Quad Left Blinder	0.66 ohms
GROUND DISTANCE Z1: Quad Left Blinder RCA	68 deg
GROUND DISTANCE Z1: Supervision	0.200 pu
GROUND DISTANCE Z1: Volt Level	0.000 pu
GROUND DISTANCE Z1: Delay	0.000 s
GROUND DISTANCE Z1: Block	SRC1 VT FUSE FAIL OP
GROUND DISTANCE Z1: Target	Self-reset
GROUND DISTANCE Z1: Events	Enabled
GROUND DISTANCE Z2: Function	Enabled
GROUND DISTANCE Z2: Direction	Forward
GROUND DISTANCE Z2: Shape	Quad
GROUND DISTANCE Z2: Z0/Z1 Mag	5.16
GROUND DISTANCE Z2: Z0/Z1 Ang	13 deg
GROUND DISTANCE Z2: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z2: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z2: Reach	2.64 ohms
GROUND DISTANCE Z2: RCA	68 deg
GROUND DISTANCE Z2: Rev Reach	2.00 ohms
GROUND DISTANCE Z2: Rev Reach RCA	85 deg
GROUND DISTANCE Z2: POL Current	Zero-seq
GROUND DISTANCE Z2: Non-Homogen Ang	-3.0 deg

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GROUND DISTANCE [GROUP 1] (continued from last page)

GROUND DISTANCE Z2: Comp Limit	90 deg
GROUND DISTANCE Z2: DIR RCA	68 deg
GROUND DISTANCE Z2: DIR Comp Limit	90 deg
GROUND DISTANCE Z2: Quad Right Blinder	1.80 ohms
GROUND DISTANCE Z2: Quad Right Blinder RCA	68 deg
GROUND DISTANCE Z2: Quad Left Blinder	1.80 ohms
GROUND DISTANCE Z2: Quad Left Blinder RCA	68 deg
GROUND DISTANCE Z2: Supervision	0.200 pu
GROUND DISTANCE Z2: Volt Level	0.000 pu
GROUND DISTANCE Z2: Delay	0.700 s
GROUND DISTANCE Z2: Block	SRC1 VT FUSE FAIL OP
GROUND DISTANCE Z2: Target	Self-reset
GROUND DISTANCE Z2: Events	Enabled
GROUND DISTANCE Z3: Function	Enabled
GROUND DISTANCE Z3: Direction	Forward
GROUND DISTANCE Z3: Shape	Quad
GROUND DISTANCE Z3: Z0/Z1 Mag	5.16
GROUND DISTANCE Z3: Z0/Z1 Ang	13 deg
GROUND DISTANCE Z3: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z3: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z3: Reach	0.37 ohms
GROUND DISTANCE Z3: RCA	68 deg
GROUND DISTANCE Z3: Rev Reach	2.00 ohms
GROUND DISTANCE Z3: Rev Reach RCA	85 deg
GROUND DISTANCE Z3: POL Current	Zero-seq
GROUND DISTANCE Z3: Non-Homogen Ang	-3.0 deg
GROUND DISTANCE Z3: Comp Limit	90 deg
GROUND DISTANCE Z3: DIR RCA	68 deg
GROUND DISTANCE Z3: DIR Comp Limit	90 deg
GROUND DISTANCE Z3: Quad Right Blinder	1.05 ohms
GROUND DISTANCE Z3: Quad Right Blinder RCA	68 deg
GROUND DISTANCE Z3: Quad Left Blinder	1.05 ohms
GROUND DISTANCE Z3: Quad Left Blinder RCA	68 deg
GROUND DISTANCE Z3: Supervision	0.200 pu
GROUND DISTANCE Z3: Volt Level	0.000 pu
GROUND DISTANCE Z3: Delay	0.400 s
GROUND DISTANCE Z3: Block	SRC1 VT FUSE FAIL OP
GROUND DISTANCE Z3: Target	Self-reset
GROUND DISTANCE Z3: Events	Enabled
GROUND DISTANCE Z4: Function	Enabled
GROUND DISTANCE Z4: Direction	Reverse
GROUND DISTANCE Z4: Shape	Quad
GROUND DISTANCE Z4: Z0/Z1 Mag	5.16
GROUND DISTANCE Z4: Z0/Z1 Ang	13 deg
GROUND DISTANCE Z4: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z4: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z4: Reach	11.43 ohms
GROUND DISTANCE Z4: RCA	68 deg
GROUND DISTANCE Z4: Rev Reach	2.00 ohms
GROUND DISTANCE Z4: Rev Reach RCA	85 deg
GROUND DISTANCE Z4: POL Current	Zero-seq
GROUND DISTANCE Z4: Non-Homogen Ang	-3.0 deg
GROUND DISTANCE Z4: Comp Limit	90 deg
GROUND DISTANCE Z4: DIR RCA	68 deg
GROUND DISTANCE Z4: DIR Comp Limit	90 deg
GROUND DISTANCE Z4: Quad Right Blinder	5.58 ohms
GROUND DISTANCE Z4: Quad Right Blinder RCA	68 deg
GROUND DISTANCE Z4: Quad Left Blinder	5.58 ohms
GROUND DISTANCE Z4: Quad Left Blinder RCA	68 deg
GROUND DISTANCE Z4: Supervision	0.200 pu
GROUND DISTANCE Z4: Volt Level	0.000 pu
GROUND DISTANCE Z4: Delay	2.200 s
GROUND DISTANCE Z4: Block	SRC1 VT FUSE FAIL OP
GROUND DISTANCE Z4: Target	Self-reset
GROUND DISTANCE Z4: Events	Enabled

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DESCRIPTION: (NONE)
TEXT COLOR

GROUND DISTANCE [GROUP 1] (continued from last page)

GROUND DISTANCE Z5: Function	Disabled
GROUND DISTANCE Z5: Direction	Forward
GROUND DISTANCE Z5: Shape	Mho
GROUND DISTANCE Z5: Z0/Z1 Mag	2.70
GROUND DISTANCE Z5: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z5: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z5: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z5: Reach	2.00 ohms
GROUND DISTANCE Z5: RCA	85 deg
GROUND DISTANCE Z5: Rev Reach	2.00 ohms
GROUND DISTANCE Z5: Rev Reach RCA	85 deg
GROUND DISTANCE Z5: POL Current	Zero-seq
GROUND DISTANCE Z5: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z5: Comp Limit	90 deg
GROUND DISTANCE Z5: DIR RCA	85 deg
GROUND DISTANCE Z5: DIR Comp Limit	90 deg
GROUND DISTANCE Z5: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z5: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z5: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z5: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z5: Supervision	0.200 pu
GROUND DISTANCE Z5: Volt Level	0.000 pu
GROUND DISTANCE Z5: Delay	0.000 s
GROUND DISTANCE Z5: Block	OFF
GROUND DISTANCE Z5: Target	Self-reset
GROUND DISTANCE Z5: Events	Disabled

POWER SWING DETECT [GROUP 1]

Function	Enabled
Source	Barra (SRC 1)
Shape	Mho Shape
Mode	Two Step
Supv	0.400 pu
Fwd Reach	4.59 ohms
Quad Fwd Mid	60.00 ohms
Quad Fwd Out	70.00 ohms
Fwd Rca	68 deg
Rev Reach	19.50 ohms
Quad Rev Mid	60.00 ohms
Quad Rev Out	70.00 ohms
Rev Rca	68 deg
Outer Limit Angle	120 deg
Middle Limit Angle	90 deg
Inner Limit Angle	60 deg
Outer Rgt Bld	50.00 ohms
Outer Lft Bld	50.00 ohms
Midle Rgt Bld	100.00 ohms
Midle Lft Bld	100.00 ohms
Inner Rgt Bld	30.00 ohms
Inner Lft Bld	30.00 ohms
Delay 1 Pickup	0.028 s
Delay 1 Reset	0.048 s
Delay 2 Pickup	0.017 s
Delay 3 Pickup	0.009 s
Delay 4 Pickup	0.017 s
Seal-In Delay	0.400 s
Trip Mode	Delayed
Block	OFF
Target	Self-reset
Event	Enabled

LOAD ENCROACHMENT [GROUP 1]

Function	Disabled
Source	Barra (SRC 1)
Min Volt	0.250 pu

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DESCRIPTION: (NONE)
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LOAD ENCROACHMENT [GROUP 1] (continued from last page)

Reach	1.00 ohms
Angle	30 deg
Pickup Delay	0.000 s
Reset Delay	0.000 s
Block	OFF
Target	Self-reset
Events	Disabled

PHASE CURRENT

PHASE TOC [GROUP 1]

PHASE TOC1: Function	Disabled
PHASE TOC1: Signal Source	Barra (SRC 1)
PHASE TOC1: Input	Phasor
PHASE TOC1: Pickup	1.000 pu
PHASE TOC1: Curve	IEEE Mod Inv
PHASE TOC1: TD Multiplier	1.00
PHASE TOC1: Reset	Instantaneous
PHASE TOC1: Voltage Restraint	Disabled
PHASE TOC1: Block A	OFF
PHASE TOC1: Block B	OFF
PHASE TOC1: Block C	OFF
PHASE TOC1: Target	Self-reset
PHASE TOC1: Events	Disabled
PHASE TOC2: Function	Disabled
PHASE TOC2: Signal Source	Barra (SRC 1)
PHASE TOC2: Input	Phasor
PHASE TOC2: Pickup	1.000 pu
PHASE TOC2: Curve	IEEE Mod Inv
PHASE TOC2: TD Multiplier	1.00
PHASE TOC2: Reset	Instantaneous
PHASE TOC2: Voltage Restraint	Disabled
PHASE TOC2: Block A	OFF
PHASE TOC2: Block B	OFF
PHASE TOC2: Block C	OFF
PHASE TOC2: Target	Self-reset
PHASE TOC2: Events	Disabled

PHASE IOC [GROUP 1]

PHASE IOC1: Function	Enabled
PHASE IOC1: Source	Barra (SRC 1)
PHASE IOC1: Pickup	1.633 pu
PHASE IOC1: Delay	0.40 s
PHASE IOC1: Reset Delay	0.00 s
PHASE IOC1: Block A	VCA_OK On (VO8)
PHASE IOC1: Block B	VCA_OK On (VO8)
PHASE IOC1: Block C	VCA_OK On (VO8)
PHASE IOC1: Target	Self-reset
PHASE IOC1: Events	Enabled
PHASE IOC2: Function	Disabled
PHASE IOC2: Source	Barra (SRC 1)
PHASE IOC2: Pickup	1.000 pu
PHASE IOC2: Delay	0.00 s
PHASE IOC2: Reset Delay	0.00 s
PHASE IOC2: Block A	OFF
PHASE IOC2: Block B	OFF
PHASE IOC2: Block C	OFF
PHASE IOC2: Target	Self-reset
PHASE IOC2: Events	Disabled

PHASE DIRECTIONAL [GROUP 1]

PHASE DIR1: Function	Disabled
PHASE DIR1: Source	Barra (SRC 1)
PHASE DIR1: Block	OFF
PHASE DIR1: ECA	30 deg
PHASE DIR1: Pol V Threshold	0.700 pu

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TEXT COLOR

PHASE DIRECTIONAL [GROUP 1] (continued from last page)

PHASE DIR1: Block when V Mem Exp	No
PHASE DIR1: Target	Self-reset
PHASE DIR1: Events	Disabled
PHASE DIR2: Function	Disabled
PHASE DIR2: Source	Barra (SRC 1)
PHASE DIR2: Block	OFF
PHASE DIR2: ECA	30 deg
PHASE DIR2: Pol V Threshold	0.700 pu
PHASE DIR2: Block when V Mem Exp	No
PHASE DIR2: Target	Self-reset
PHASE DIR2: Events	Disabled

NEUTRAL CURRENT

NEUTRAL TOC [GROUP 1]

NEUTRAL TOC1: Function	Enabled
NEUTRAL TOC1: Source	Barra (SRC 1)
NEUTRAL TOC1: Input	Phasor
NEUTRAL TOC1: Pickup	0.432 pu
NEUTRAL TOC1: Curve	IEC Curve A
NEUTRAL TOC1: TD Multiplier	0.23
NEUTRAL TOC1: Reset	Instantaneous
NEUTRAL TOC1: Block	NTRL DIR OC1 REV
NEUTRAL TOC1: Target	Self-reset
NEUTRAL TOC1: Events	Enabled
NEUTRAL TOC2: Function	Enabled
NEUTRAL TOC2: Source	Barra (SRC 1)
NEUTRAL TOC2: Input	Phasor
NEUTRAL TOC2: Pickup	7.812 pu
NEUTRAL TOC2: Curve	Definite Time
NEUTRAL TOC2: TD Multiplier	0.30
NEUTRAL TOC2: Reset	Instantaneous
NEUTRAL TOC2: Block	NTRL DIR OC1 REV
NEUTRAL TOC2: Target	Self-reset
NEUTRAL TOC2: Events	Enabled

NEUTRAL IOC [GROUP 1]

NEUTRAL IOC1: Function	Enabled
NEUTRAL IOC1: Source	Barra (SRC 1)
NEUTRAL IOC1: Pickup	0.245 pu
NEUTRAL IOC1: Delay	0.00 s
NEUTRAL IOC1: Reset Delay	0.00 s
NEUTRAL IOC1: Block	VCA_OK On (VO8)
NEUTRAL IOC1: Target	Self-reset
NEUTRAL IOC1: Events	Enabled
NEUTRAL IOC2: Function	Disabled
NEUTRAL IOC2: Source	Barra (SRC 1)
NEUTRAL IOC2: Pickup	1.000 pu
NEUTRAL IOC2: Delay	0.00 s
NEUTRAL IOC2: Reset Delay	0.00 s
NEUTRAL IOC2: Block	OFF
NEUTRAL IOC2: Target	Self-reset
NEUTRAL IOC2: Events	Disabled

NEUTRAL DIRECTIONAL OC [GROUP 1]

NEUTRAL DIR OC1: Function	Enabled
NEUTRAL DIR OC1: Source	Barra (SRC 1)
NEUTRAL DIR OC1: Polarizing	Voltage
NEUTRAL DIR OC1: Polarizing Volt	Calculated V0
NEUTRAL DIR OC1: Op Current	Calculated 3I0
NEUTRAL DIR OC1: POS SEQ Restraint	0.063
NEUTRAL DIR OC1: Offset	0.00 ohms
NEUTRAL DIR OC1: Forward ECA	75 ° Lag
NEUTRAL DIR OC1: Forward Limit Angle	90 deg
NEUTRAL DIR OC1: Forward Pickup	0.050 pu
NEUTRAL DIR OC1: Reverse Limit Angle	90 deg

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DESCRIPTION: (NONE)
TEXT COLOR

NEUTRAL DIRECTIONAL OC [GROUP 1] (continued from last page)

NEUTRAL DIR OC1: Reverse Pickup	0.050 pu
NEUTRAL DIR OC1: Block	OFF
NEUTRAL DIR OC1: Target	Self-reset
NEUTRAL DIR OC1: Events	Enabled
NEUTRAL DIR OC2: Function	Disabled
NEUTRAL DIR OC2: Source	Barra (SRC 1)
NEUTRAL DIR OC2: Polarizing	Voltage
NEUTRAL DIR OC2: Polarizing Volt	Calculated V0
NEUTRAL DIR OC2: Op Current	Calculated 3I0
NEUTRAL DIR OC2: POS SEQ Restraint	0.063
NEUTRAL DIR OC2: Offset	0.00 ohms
NEUTRAL DIR OC2: Forward ECA	75 ° Lag
NEUTRAL DIR OC2: Forward Limit Angle	90 deg
NEUTRAL DIR OC2: Forward Pickup	0.050 pu
NEUTRAL DIR OC2: Reverse Limit Angle	90 deg
NEUTRAL DIR OC2: Reverse Pickup	0.050 pu
NEUTRAL DIR OC2: Block	OFF
NEUTRAL DIR OC2: Target	Self-reset
NEUTRAL DIR OC2: Events	Disabled

WATTMETRIC GROUND FAULT [GROUP 1]

WATTMETRIC GND FLT 1: Function	Disabled
WATTMETRIC GND FLT 1: Source	Barra (SRC 1)
WATTMETRIC GND FLT 1: Voltage	Calculated VN
WATTMETRIC GND FLT 1: OV Pickup	0.20 pu
WATTMETRIC GND FLT 1: Current	Calculated IN
WATTMETRIC GND FLT 1: OC Pickup	0.060 pu
WATTMETRIC GND FLT 1: OC Pickup Delay	0.20 s
WATTMETRIC GND FLT 1: Power Pickup	0.100 pu
WATTMETRIC GND FLT 1: Ref Power	0.500 pu
WATTMETRIC GND FLT 1: ECA	0 ° Lag
WATTMETRIC GND FLT 1: Power Pickup Delay	0.20 s
WATTMETRIC GND FLT 1: Curve	Definite Time
WATTMETRIC GND FLT 1: Multiplier	1.00 s
WATTMETRIC GND FLT 1: Block	OFF
WATTMETRIC GND FLT 1: Target	Self-reset
WATTMETRIC GND FLT 1: Events	Disabled
WATTMETRIC GND FLT 2: Function	Disabled
WATTMETRIC GND FLT 2: Source	Barra (SRC 1)
WATTMETRIC GND FLT 2: Voltage	Calculated VN
WATTMETRIC GND FLT 2: OV Pickup	0.20 pu
WATTMETRIC GND FLT 2: Current	Calculated IN
WATTMETRIC GND FLT 2: OC Pickup	0.060 pu
WATTMETRIC GND FLT 2: OC Pickup Delay	0.20 s
WATTMETRIC GND FLT 2: Power Pickup	0.100 pu
WATTMETRIC GND FLT 2: Ref Power	0.500 pu
WATTMETRIC GND FLT 2: ECA	0 ° Lag
WATTMETRIC GND FLT 2: Power Pickup Delay	0.20 s
WATTMETRIC GND FLT 2: Curve	Definite Time
WATTMETRIC GND FLT 2: Multiplier	1.00 s
WATTMETRIC GND FLT 2: Block	OFF
WATTMETRIC GND FLT 2: Target	Self-reset
WATTMETRIC GND FLT 2: Events	Disabled

GROUND CURRENT

GROUND TOC [GROUP 1]

GROUND TOC1: Function	Disabled
GROUND TOC1: Source	Barra (SRC 1)
GROUND TOC1: Input	Phasor
GROUND TOC1: Pickup	1.000 pu
GROUND TOC1: Curve	IEEE Mod Inv
GROUND TOC1: TD Multiplier	1.00
GROUND TOC1: Reset	Instantaneous
GROUND TOC1: Block	OFF
GROUND TOC1: Target	Self-reset

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GROUND TOC [GROUP 1] (continued from last page)

GROUND TOC1: Events	Disabled
GROUND TOC2: Function	Disabled
GROUND TOC2: Source	Barra (SRC 1)
GROUND TOC2: Input	Phasor
GROUND TOC2: Pickup	1.000 pu
GROUND TOC2: Curve	IEEE Mod Inv
GROUND TOC2: TD Multiplier	1.00
GROUND TOC2: Reset	Instantaneous
GROUND TOC2: Block	OFF
GROUND TOC2: Target	Self-reset
GROUND TOC2: Events	Disabled

GROUND IOC [GROUP 1]

GROUND IOC1: Function	Disabled
GROUND IOC1: Source	Barra (SRC 1)
GROUND IOC1: Pickup	1.000 pu
GROUND IOC1: Delay	0.00 s
GROUND IOC1: Reset Delay	0.00 s
GROUND IOC1: Block	OFF
GROUND IOC1: Target	Self-reset
GROUND IOC1: Events	Disabled
GROUND IOC2: Function	Disabled
GROUND IOC2: Source	Barra (SRC 1)
GROUND IOC2: Pickup	1.000 pu
GROUND IOC2: Delay	0.00 s
GROUND IOC2: Reset Delay	0.00 s
GROUND IOC2: Block	OFF
GROUND IOC2: Target	Self-reset
GROUND IOC2: Events	Disabled

NEGATIVE SEQUENCE CURRENT

NEGATIVE SEQUENCE TOC [GROUP 1]

NEGATIVE SEQ TOC1: Function	Disabled
NEGATIVE SEQ TOC1: Source	Barra (SRC 1)
NEGATIVE SEQ TOC1: Pickup	1.000 pu
NEGATIVE SEQ TOC1: Curve	IEEE Mod Inv
NEGATIVE SEQ TOC1: TD Multiplier	1.00
NEGATIVE SEQ TOC1: Reset	Instantaneous
NEGATIVE SEQ TOC1: Block	OFF
NEGATIVE SEQ TOC1: Target	Self-reset
NEGATIVE SEQ TOC1: Events	Disabled
NEGATIVE SEQ TOC2: Function	Disabled
NEGATIVE SEQ TOC2: Source	Barra (SRC 1)
NEGATIVE SEQ TOC2: Pickup	1.000 pu
NEGATIVE SEQ TOC2: Curve	IEEE Mod Inv
NEGATIVE SEQ TOC2: TD Multiplier	1.00
NEGATIVE SEQ TOC2: Reset	Instantaneous
NEGATIVE SEQ TOC2: Block	OFF
NEGATIVE SEQ TOC2: Target	Self-reset
NEGATIVE SEQ TOC2: Events	Disabled

NEGATIVE SEQUENCE IOC [GROUP 1]

NEGATIVE SEQ IOC1: Function	Disabled
NEGATIVE SEQ IOC1: Source	Barra (SRC 1)
NEGATIVE SEQ IOC1: Pickup	1.000 pu
NEGATIVE SEQ IOC1: Delay	0.00 s
NEGATIVE SEQ IOC1: Reset Delay	0.00 s
NEGATIVE SEQ IOC1: Block	OFF
NEGATIVE SEQ IOC1: Target	Self-reset
NEGATIVE SEQ IOC1: Events	Disabled
NEGATIVE SEQ IOC2: Function	Disabled
NEGATIVE SEQ IOC2: Source	Barra (SRC 1)
NEGATIVE SEQ IOC2: Pickup	1.000 pu
NEGATIVE SEQ IOC2: Delay	0.00 s
NEGATIVE SEQ IOC2: Reset Delay	0.00 s

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NEGATIVE SEQUENCE IOC [GROUP 1] (continued from last page)

NEGATIVE SEQ IOC2: Block	OFF
NEGATIVE SEQ IOC2: Target	Self-reset
NEGATIVE SEQ IOC2: Events	Disabled

NEGATIVE SEQUENCE DIRECTIONAL OC [GROUP 1]

NEGATIVE SEQ DIR OC1: Function	Disabled
NEGATIVE SEQ DIR OC1: Source	Barra (SRC 1)
NEGATIVE SEQ DIR OC1: Offset	0.00 ohms
NEGATIVE SEQ DIR OC1: Type	Neg Sequence
NEGATIVE SEQ DIR OC1: POS SEQ Restraint	0.063
NEGATIVE SEQ DIR OC1: Forward ECA	75 ° Lag
NEGATIVE SEQ DIR OC1: Forward Limit Angle	90 deg
NEGATIVE SEQ DIR OC1: Forward Pickup	0.050 pu
NEGATIVE SEQ DIR OC1: Reverse Limit Angle	90 deg
NEGATIVE SEQ DIR OC1: Reverse Pickup	0.050 pu
NEGATIVE SEQ DIR OC1: Block	OFF
NEGATIVE SEQ DIR OC1: Target	Self-reset
NEGATIVE SEQ DIR OC1: Events	Disabled
NEGATIVE SEQ DIR OC2: Function	Disabled
NEGATIVE SEQ DIR OC2: Source	Barra (SRC 1)
NEGATIVE SEQ DIR OC2: Offset	0.00 ohms
NEGATIVE SEQ DIR OC2: Type	Neg Sequence
NEGATIVE SEQ DIR OC2: POS SEQ Restraint	0.063
NEGATIVE SEQ DIR OC2: Forward ECA	75 ° Lag
NEGATIVE SEQ DIR OC2: Forward Limit Angle	90 deg
NEGATIVE SEQ DIR OC2: Forward Pickup	0.050 pu
NEGATIVE SEQ DIR OC2: Reverse Limit Angle	90 deg
NEGATIVE SEQ DIR OC2: Reverse Pickup	0.050 pu
NEGATIVE SEQ DIR OC2: Block	OFF
NEGATIVE SEQ DIR OC2: Target	Self-reset
NEGATIVE SEQ DIR OC2: Events	Disabled

BREAKER FAILURE [GROUP 1]

BF1: Function	Disabled
BF1: Mode	3-Pole
BF1: Source	Barra (SRC 1)
BF1: Current Supervision	Yes
BF1: Use Seal-In	No
BF1: Three Pole Initiate	TRIP 3-POLE
BF1: Block	OFF
BF1: Phase Current Supv Pickup	1.120 pu
BF1: Neutral Current Supv Pickup	0.180 pu
BF1: Use Timer 1	Yes
BF1: Timer 1 Pickup Delay	0.200 s
BF1: Use Timer 2	Yes
BF1: Timer 2 Pickup Delay	0.200 s
BF1: Use Timer 3	Yes
BF1: Timer 3 Pickup Delay	0.300 s
BF1: Breaker Pos1 Phase A/3P	OFF
BF1: Breaker Pos2 Phase A/3P	OFF
BF1: Breaker Test On	OFF
BF1: Phase Current HiSet Pickup	1.120 pu
BF1: Neutral Current HiSet Pickup	0.180 pu
BF1: Phase Current LoSet Pickup	0.780 pu
BF1: Neutral Current LoSet Pickup	0.162 pu
BF1: LoSet Time Delay	0.050 s
BF1: Trip Dropout Delay	0.250 s
BF1: Target	Latched
BF1: Events	Enabled
BF1: Phase A Initiate	OFF
BF1: Phase B Initiate	OFF
BF1: Phase C Initiate	OFF
BF1: Breaker Pos1 Phase B	OFF
BF1: Breaker Pos1 Phase C	OFF
BF1: Breaker Pos2 Phase B	OFF

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

BREAKER FAILURE [GROUP 1] (continued from last page)

BF1: Breaker Pos2 Phase C	OFF
BF2: Function	Disabled
BF2: Mode	3-Pole
BF2: Source	Barra (SRC 1)
BF2: Current Supervision	Yes
BF2: Use Seal-In	Yes
BF2: Three Pole Initiate	OFF
BF2: Block	OFF
BF2: Phase Current Supv Pickup	1.050 pu
BF2: Neutral Current Supv Pickup	1.050 pu
BF2: Use Timer 1	Yes
BF2: Timer 1 Pickup Delay	0.000 s
BF2: Use Timer 2	Yes
BF2: Timer 2 Pickup Delay	0.000 s
BF2: Use Timer 3	Yes
BF2: Timer 3 Pickup Delay	0.000 s
BF2: Breaker Pos1 Phase A/3P	OFF
BF2: Breaker Pos2 Phase A/3P	OFF
BF2: Breaker Test On	OFF
BF2: Phase Current HiSet Pickup	1.050 pu
BF2: Neutral Current HiSet Pickup	1.050 pu
BF2: Phase Current LoSet Pickup	1.050 pu
BF2: Neutral Current LoSet Pickup	1.050 pu
BF2: LoSet Time Delay	0.000 s
BF2: Trip Dropout Delay	0.000 s
BF2: Target	Self-reset
BF2: Events	Disabled
BF2: Phase A Initiate	OFF
BF2: Phase B Initiate	OFF
BF2: Phase C Initiate	OFF
BF2: Breaker Pos1 Phase B	OFF
BF2: Breaker Pos1 Phase C	OFF
BF2: Breaker Pos2 Phase B	OFF
BF2: Breaker Pos2 Phase C	OFF

VOLTAGE ELEMENTS

PHASE UV [GROUP 1]

PHASE UV1: Function	Disabled
PHASE UV1: Signal Source	Barra (SRC 1)
PHASE UV1: Mode	Phase to Ground
PHASE UV1: Pickup	1.000 pu
PHASE UV1: Curve	Definite Time
PHASE UV1: Delay	1.00 s
PHASE UV1: Minimum Voltage	0.100 pu
PHASE UV1: Block	OFF
PHASE UV1: Target	Self-reset
PHASE UV1: Events	Disabled
PHASE UV2: Function	Disabled
PHASE UV2: Signal Source	Barra (SRC 1)
PHASE UV2: Mode	Phase to Ground
PHASE UV2: Pickup	1.000 pu
PHASE UV2: Curve	Definite Time
PHASE UV2: Delay	1.00 s
PHASE UV2: Minimum Voltage	0.100 pu
PHASE UV2: Block	OFF
PHASE UV2: Target	Self-reset
PHASE UV2: Events	Disabled
PHASE UV3: Function	Disabled
PHASE UV3: Signal Source	Barra (SRC 1)
PHASE UV3: Mode	Phase to Ground
PHASE UV3: Pickup	1.000 pu
PHASE UV3: Curve	Definite Time
PHASE UV3: Delay	1.00 s
PHASE UV3: Minimum Voltage	0.100 pu
PHASE UV3: Block	OFF

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

PHASE UV [GROUP 1] (continued from last page)

PHASE UV3: Target	Self-reset
PHASE UV3: Events	Disabled

PHASE OV [GROUP 1]

PHASE OV1: Function	Disabled
PHASE OV1: Source	Barra (SRC 1)
PHASE OV1: Pickup	1.000 pu
PHASE OV1: Delay	1.00 s
PHASE OV1: Reset Delay	1.00 s
PHASE OV1: Block	OFF
PHASE OV1: Target	Self-reset
PHASE OV1: Events	Disabled

NEUTRAL OV [GROUP 1]

NEUTRAL OV 1: Function	Disabled
NEUTRAL OV 1: Source	Barra (SRC 1)
NEUTRAL OV 1: Pickup	0.300 pu
NEUTRAL OV 1: Curve	Definite Time
NEUTRAL OV 1: Pickup Delay	1.00 s
NEUTRAL OV 1: Reset Delay	1.00 s
NEUTRAL OV 1: Block	OFF
NEUTRAL OV 1: Target	Self-reset
NEUTRAL OV 1: Events	Disabled
NEUTRAL OV 2: Function	Disabled
NEUTRAL OV 2: Source	Barra (SRC 1)
NEUTRAL OV 2: Pickup	0.300 pu
NEUTRAL OV 2: Curve	Definite Time
NEUTRAL OV 2: Pickup Delay	1.00 s
NEUTRAL OV 2: Reset Delay	1.00 s
NEUTRAL OV 2: Block	OFF
NEUTRAL OV 2: Target	Self-reset
NEUTRAL OV 2: Events	Disabled
NEUTRAL OV 3: Function	Disabled
NEUTRAL OV 3: Source	Barra (SRC 1)
NEUTRAL OV 3: Pickup	0.300 pu
NEUTRAL OV 3: Curve	Definite Time
NEUTRAL OV 3: Pickup Delay	1.00 s
NEUTRAL OV 3: Reset Delay	1.00 s
NEUTRAL OV 3: Block	OFF
NEUTRAL OV 3: Target	Self-reset
NEUTRAL OV 3: Events	Disabled

NEGATIVE SEQUENCE OV [GROUP 1]

NEG SEQ OV1: Function	Disabled
NEG SEQ OV1: Source	Barra (SRC 1)
NEG SEQ OV1: Pickup	0.300 pu
NEG SEQ OV1: Pickup Delay	0.50 s
NEG SEQ OV1: Reset Delay	0.50 s
NEG SEQ OV1: Block	OFF
NEG SEQ OV1: Target	Self-reset
NEG SEQ OV1: Events	Disabled
NEG SEQ OV2: Function	Disabled
NEG SEQ OV2: Source	Barra (SRC 1)
NEG SEQ OV2: Pickup	0.300 pu
NEG SEQ OV2: Pickup Delay	0.50 s
NEG SEQ OV2: Reset Delay	0.50 s
NEG SEQ OV2: Block	OFF
NEG SEQ OV2: Target	Self-reset
NEG SEQ OV2: Events	Disabled
NEG SEQ OV3: Function	Disabled
NEG SEQ OV3: Source	Barra (SRC 1)
NEG SEQ OV3: Pickup	0.300 pu
NEG SEQ OV3: Pickup Delay	0.50 s
NEG SEQ OV3: Reset Delay	0.50 s
NEG SEQ OV3: Block	OFF

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

NEGATIVE SEQUENCE OV [GROUP 1] (continued from last page)

NEG SEQ OV3: Target	Self-reset
NEG SEQ OV3: Events	Disabled

AUXILIARY UV [GROUP 1]

AUXILIARY UV 1: Function	Enabled
AUXILIARY UV 1: Source	Linea (SRC 2)
AUXILIARY UV 1: Pickup	0.050 pu
AUXILIARY UV 1: Curve	Definite Time
AUXILIARY UV 1: Delay	1.00 s
AUXILIARY UV 1: Minimum Voltage	0.010 pu
AUXILIARY UV 1: Block	OFF
AUXILIARY UV 1: Target	Self-reset
AUXILIARY UV 1: Events	Enabled

AUXILIARY OV [GROUP 1]

AUXILIARY OV 1: Function	Disabled
AUXILIARY OV 1: Source	Barra (SRC 1)
AUXILIARY OV 1: Pickup	0.300 pu
AUXILIARY OV 1: Pickup Delay	1.00 s
AUXILIARY OV 1: Reset Delay	1.00 s
AUXILIARY OV 1: Block	OFF
AUXILIARY OV 1: Target	Self-reset
AUXILIARY OV 1: Events	Disabled

COMPENSATED OVERVOLTAGE [GROUP 1]

Compensated OV Function	Disabled
Compensated OV Source	Barra (SRC 1)
Compensated OV Zc Mag	2.00 ohm
Compensated OV Zc Ang	90 deg
Compensated OV I_1max	0.20 pu
Compensated OV STG1 PKP	1.300 pu
Compensated OV STG1 Delay	1.00 sec
Compensated OV STG2 PKP	1.300 pu
Compensated OV STG2 Delay	1.00 sec
Compensated OV STG3 PKP	1.300 pu
Compensated OV STG3 Delay	1.00 sec
Compensated OV Block	OFF
Compensated OV Target	Self-reset
Compensated OV Events	Disabled

POWER

SENSITIVE DIRECTIONAL POWER

SENSITIVE DIRECTIONAL POWER [GROUP 1]

SENS DIR POWER1: Function	Disabled
SENS DIR POWER1: Signal Source	Barra (SRC 1)
SENS DIR POWER1: Sensitive Directional Power RCA	0 deg
SENS DIR POWER1: Sensitive Directional Power Calibration	0.00 deg
SENS DIR POWER1: Stage 1 SMIN	0.100 pu
SENS DIR POWER1: Stage 1 Delay	0.50 s
SENS DIR POWER1: Stage 2 SMIN	0.100 pu
SENS DIR POWER1: Stage 2 Delay	20.00 s
SENS DIR POWER1: Block	OFF
SENS DIR POWER1: Target	Self-reset
SENS DIR POWER1: Events	Disabled
SENS DIR POWER2: Function	Disabled
SENS DIR POWER2: Signal Source	Barra (SRC 1)
SENS DIR POWER2: Sensitive Directional Power RCA	0 deg
SENS DIR POWER2: Sensitive Directional Power Calibration	0.00 deg
SENS DIR POWER2: Stage 1 SMIN	0.100 pu
SENS DIR POWER2: Stage 1 Delay	0.50 s
SENS DIR POWER2: Stage 2 SMIN	0.100 pu
SENS DIR POWER2: Stage 2 Delay	20.00 s
SENS DIR POWER2: Block	OFF
SENS DIR POWER2: Target	Self-reset
SENS DIR POWER2: Events	Disabled

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

GROUP 2

LINE PICKUP [GROUP 2]

Function	Disabled
Signal Source	Barra (SRC 1)
Phase IOC Line Pickup	1.000 pu
UV Pickup	0.700 pu
Line End Open Pickup Delay	0.150 s
Line End Open Reset Delay	0.090 s
OV Pickup Delay	0.040 s
Autoreclose Coordination Bypass	Enabled
Autoreclose Coordination Pickup Delay	0.045 s
Autoreclose Coordination Reset Delay	0.005 s
Terminal Open	OFF
AR Accelerate	OFF
Distance Trip	Enabled
Block	OFF
Target	Self-reset
Events	Disabled

DISTANCE

DISTANCE [GROUP 2]

Source	Barra (SRC 1)
Memory Duration	10 cycles
Force Self-Polar	OFF
Force Mem-Polar	OFF

PHASE DISTANCE [GROUP 2]

PHASE DISTANCE Z1: Function	Disabled
PHASE DISTANCE Z1: Direction	Forward
PHASE DISTANCE Z1: Shape	Mho
PHASE DISTANCE Z1: Xfmr Vol Connection	None
PHASE DISTANCE Z1: Xfmr Curr Connection	None
PHASE DISTANCE Z1: Reach	2.00 ohms
PHASE DISTANCE Z1: RCA	85 deg
PHASE DISTANCE Z1: Rev Reach	2.00 ohms
PHASE DISTANCE Z1: Rev Reach RCA	85 deg
PHASE DISTANCE Z1: Comp Limit	90 deg
PHASE DISTANCE Z1: DIR RCA	85 deg
PHASE DISTANCE Z1: DIR Comp Limit	90 deg
PHASE DISTANCE Z1: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z1: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z1: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z1: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z1: Supervision	0.200 pu
PHASE DISTANCE Z1: Volt Level	0.000 pu
PHASE DISTANCE Z1: Delay	0.000 s
PHASE DISTANCE Z1: Block	OFF
PHASE DISTANCE Z1: Target	Self-reset
PHASE DISTANCE Z1: Events	Disabled
PHASE DISTANCE Z2: Function	Disabled
PHASE DISTANCE Z2: Direction	Forward
PHASE DISTANCE Z2: Shape	Mho
PHASE DISTANCE Z2: Xfmr Vol Connection	None
PHASE DISTANCE Z2: Xfmr Curr Connection	None
PHASE DISTANCE Z2: Reach	2.00 ohms
PHASE DISTANCE Z2: RCA	85 deg
PHASE DISTANCE Z2: Rev Reach	2.00 ohms
PHASE DISTANCE Z2: Rev Reach RCA	85 deg
PHASE DISTANCE Z2: Comp Limit	90 deg
PHASE DISTANCE Z2: DIR RCA	85 deg
PHASE DISTANCE Z2: DIR Comp Limit	90 deg
PHASE DISTANCE Z2: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z2: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z2: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z2: Quad Left Blinder RCA	85 deg

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

PHASE DISTANCE [GROUP 2] (continued from last page)

PHASE DISTANCE Z2: Supervision	0.200 pu
PHASE DISTANCE Z2: Volt Level	0.000 pu
PHASE DISTANCE Z2: Delay	0.000 s
PHASE DISTANCE Z2: Block	OFF
PHASE DISTANCE Z2: Target	Self-reset
PHASE DISTANCE Z2: Events	Disabled
PHASE DISTANCE Z3: Function	Disabled
PHASE DISTANCE Z3: Direction	Forward
PHASE DISTANCE Z3: Shape	Mho
PHASE DISTANCE Z3: Xfmr Vol Connection	None
PHASE DISTANCE Z3: Xfmr Curr Connection	None
PHASE DISTANCE Z3: Reach	2.00 ohms
PHASE DISTANCE Z3: RCA	85 deg
PHASE DISTANCE Z3: Rev Reach	2.00 ohms
PHASE DISTANCE Z3: Rev Reach RCA	85 deg
PHASE DISTANCE Z3: Comp Limit	90 deg
PHASE DISTANCE Z3: DIR RCA	85 deg
PHASE DISTANCE Z3: DIR Comp Limit	90 deg
PHASE DISTANCE Z3: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z3: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z3: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z3: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z3: Supervision	0.200 pu
PHASE DISTANCE Z3: Volt Level	0.000 pu
PHASE DISTANCE Z3: Delay	0.000 s
PHASE DISTANCE Z3: Block	OFF
PHASE DISTANCE Z3: Target	Self-reset
PHASE DISTANCE Z3: Events	Disabled
PHASE DISTANCE Z4: Function	Disabled
PHASE DISTANCE Z4: Direction	Forward
PHASE DISTANCE Z4: Shape	Mho
PHASE DISTANCE Z4: Xfmr Vol Connection	None
PHASE DISTANCE Z4: Xfmr Curr Connection	None
PHASE DISTANCE Z4: Reach	2.00 ohms
PHASE DISTANCE Z4: RCA	85 deg
PHASE DISTANCE Z4: Rev Reach	2.00 ohms
PHASE DISTANCE Z4: Rev Reach RCA	85 deg
PHASE DISTANCE Z4: Comp Limit	90 deg
PHASE DISTANCE Z4: DIR RCA	85 deg
PHASE DISTANCE Z4: DIR Comp Limit	90 deg
PHASE DISTANCE Z4: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z4: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z4: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z4: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z4: Supervision	0.200 pu
PHASE DISTANCE Z4: Volt Level	0.000 pu
PHASE DISTANCE Z4: Delay	0.000 s
PHASE DISTANCE Z4: Block	OFF
PHASE DISTANCE Z4: Target	Self-reset
PHASE DISTANCE Z4: Events	Disabled
PHASE DISTANCE Z5: Function	Disabled
PHASE DISTANCE Z5: Direction	Forward
PHASE DISTANCE Z5: Shape	Mho
PHASE DISTANCE Z5: Xfmr Vol Connection	None
PHASE DISTANCE Z5: Xfmr Curr Connection	None
PHASE DISTANCE Z5: Reach	2.00 ohms
PHASE DISTANCE Z5: RCA	85 deg
PHASE DISTANCE Z5: Rev Reach	2.00 ohms
PHASE DISTANCE Z5: Rev Reach RCA	85 deg
PHASE DISTANCE Z5: Comp Limit	90 deg
PHASE DISTANCE Z5: DIR RCA	85 deg
PHASE DISTANCE Z5: DIR Comp Limit	90 deg
PHASE DISTANCE Z5: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z5: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z5: Quad Left Blinder	10.00 ohms

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
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ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

PHASE DISTANCE [GROUP 2] (continued from last page)

PHASE DISTANCE Z5: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z5: Supervision	0.200 pu
PHASE DISTANCE Z5: Volt Level	0.000 pu
PHASE DISTANCE Z5: Delay	0.000 s
PHASE DISTANCE Z5: Block	OFF
PHASE DISTANCE Z5: Target	Self-reset
PHASE DISTANCE Z5: Events	Disabled

GROUND DISTANCE [GROUP 2]

GROUND DISTANCE Z1: Function	Disabled
GROUND DISTANCE Z1: Direction	Forward
GROUND DISTANCE Z1: Shape	Mho
GROUND DISTANCE Z1: Z0/Z1 Mag	2.70
GROUND DISTANCE Z1: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z1: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z1: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z1: Reach	2.00 ohms
GROUND DISTANCE Z1: RCA	85 deg
GROUND DISTANCE Z1: Rev Reach	2.00 ohms
GROUND DISTANCE Z1: Rev Reach RCA	85 deg
GROUND DISTANCE Z1: POL Current	Zero-seq
GROUND DISTANCE Z1: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z1: Comp Limit	90 deg
GROUND DISTANCE Z1: DIR RCA	85 deg
GROUND DISTANCE Z1: DIR Comp Limit	90 deg
GROUND DISTANCE Z1: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z1: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z1: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z1: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z1: Supervision	0.200 pu
GROUND DISTANCE Z1: Volt Level	0.000 pu
GROUND DISTANCE Z1: Delay	0.000 s
GROUND DISTANCE Z1: Block	OFF
GROUND DISTANCE Z1: Target	Self-reset
GROUND DISTANCE Z1: Events	Disabled
GROUND DISTANCE Z2: Function	Disabled
GROUND DISTANCE Z2: Direction	Forward
GROUND DISTANCE Z2: Shape	Mho
GROUND DISTANCE Z2: Z0/Z1 Mag	2.70
GROUND DISTANCE Z2: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z2: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z2: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z2: Reach	2.00 ohms
GROUND DISTANCE Z2: RCA	85 deg
GROUND DISTANCE Z2: Rev Reach	2.00 ohms
GROUND DISTANCE Z2: Rev Reach RCA	85 deg
GROUND DISTANCE Z2: POL Current	Zero-seq
GROUND DISTANCE Z2: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z2: Comp Limit	90 deg
GROUND DISTANCE Z2: DIR RCA	85 deg
GROUND DISTANCE Z2: DIR Comp Limit	90 deg
GROUND DISTANCE Z2: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z2: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z2: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z2: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z2: Supervision	0.200 pu
GROUND DISTANCE Z2: Volt Level	0.000 pu
GROUND DISTANCE Z2: Delay	0.000 s
GROUND DISTANCE Z2: Block	OFF
GROUND DISTANCE Z2: Target	Self-reset
GROUND DISTANCE Z2: Events	Disabled
GROUND DISTANCE Z3: Function	Disabled
GROUND DISTANCE Z3: Direction	Forward
GROUND DISTANCE Z3: Shape	Mho
GROUND DISTANCE Z3: Z0/Z1 Mag	2.70

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
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ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

GROUND DISTANCE [GROUP 2] (continued from last page)

GROUND DISTANCE Z3: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z3: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z3: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z3: Reach	2.00 ohms
GROUND DISTANCE Z3: RCA	85 deg
GROUND DISTANCE Z3: Rev Reach	2.00 ohms
GROUND DISTANCE Z3: Rev Reach RCA	85 deg
GROUND DISTANCE Z3: POL Current	Zero-seq
GROUND DISTANCE Z3: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z3: Comp Limit	90 deg
GROUND DISTANCE Z3: DIR RCA	85 deg
GROUND DISTANCE Z3: DIR Comp Limit	90 deg
GROUND DISTANCE Z3: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z3: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z3: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z3: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z3: Supervision	0.200 pu
GROUND DISTANCE Z3: Volt Level	0.000 pu
GROUND DISTANCE Z3: Delay	0.000 s
GROUND DISTANCE Z3: Block	OFF
GROUND DISTANCE Z3: Target	Self-reset
GROUND DISTANCE Z3: Events	Disabled
GROUND DISTANCE Z4: Function	Disabled
GROUND DISTANCE Z4: Direction	Forward
GROUND DISTANCE Z4: Shape	Mho
GROUND DISTANCE Z4: Z0/Z1 Mag	2.70
GROUND DISTANCE Z4: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z4: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z4: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z4: Reach	2.00 ohms
GROUND DISTANCE Z4: RCA	85 deg
GROUND DISTANCE Z4: Rev Reach	2.00 ohms
GROUND DISTANCE Z4: Rev Reach RCA	85 deg
GROUND DISTANCE Z4: POL Current	Zero-seq
GROUND DISTANCE Z4: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z4: Comp Limit	90 deg
GROUND DISTANCE Z4: DIR RCA	85 deg
GROUND DISTANCE Z4: DIR Comp Limit	90 deg
GROUND DISTANCE Z4: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z4: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z4: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z4: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z4: Supervision	0.200 pu
GROUND DISTANCE Z4: Volt Level	0.000 pu
GROUND DISTANCE Z4: Delay	0.000 s
GROUND DISTANCE Z4: Block	OFF
GROUND DISTANCE Z4: Target	Self-reset
GROUND DISTANCE Z4: Events	Disabled
GROUND DISTANCE Z5: Function	Disabled
GROUND DISTANCE Z5: Direction	Forward
GROUND DISTANCE Z5: Shape	Mho
GROUND DISTANCE Z5: Z0/Z1 Mag	2.70
GROUND DISTANCE Z5: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z5: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z5: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z5: Reach	2.00 ohms
GROUND DISTANCE Z5: RCA	85 deg
GROUND DISTANCE Z5: Rev Reach	2.00 ohms
GROUND DISTANCE Z5: Rev Reach RCA	85 deg
GROUND DISTANCE Z5: POL Current	Zero-seq
GROUND DISTANCE Z5: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z5: Comp Limit	90 deg
GROUND DISTANCE Z5: DIR RCA	85 deg
GROUND DISTANCE Z5: DIR Comp Limit	90 deg
GROUND DISTANCE Z5: Quad Right Blinder	10.00 ohms

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GROUND DISTANCE [GROUP 2] (continued from last page)

GROUND DISTANCE Z5: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z5: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z5: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z5: Supervision	0.200 pu
GROUND DISTANCE Z5: Volt Level	0.000 pu
GROUND DISTANCE Z5: Delay	0.000 s
GROUND DISTANCE Z5: Block	OFF
GROUND DISTANCE Z5: Target	Self-reset
GROUND DISTANCE Z5: Events	Disabled

POWER SWING DETECT [GROUP 2]

Function	Disabled
Source	Barra (SRC 1)
Shape	Mho Shape
Mode	Two Step
Supv	0.600 pu
Fwd Reach	50.00 ohms
Quad Fwd Mid	60.00 ohms
Quad Fwd Out	70.00 ohms
Fwd Rca	75 deg
Rev Reach	50.00 ohms
Quad Rev Mid	60.00 ohms
Quad Rev Out	70.00 ohms
Rev Rca	75 deg
Outer Limit Angle	120 deg
Middle Limit Angle	90 deg
Inner Limit Angle	60 deg
Outer Rgt Bld	100.00 ohms
Outer Lft Bld	100.00 ohms
Midle Rgt Bld	100.00 ohms
Midle Lft Bld	100.00 ohms
Inner Rgt Bld	100.00 ohms
Inner Lft Bld	100.00 ohms
Delay 1 Pickup	0.030 s
Delay 1 Reset	0.050 s
Delay 2 Pickup	0.017 s
Delay 3 Pickup	0.009 s
Delay 4 Pickup	0.017 s
Seal-In Delay	0.400 s
Trip Mode	Delayed
Block	OFF
Target	Self-reset
Event	Disabled

LOAD ENCROACHMENT [GROUP 2]

Function	Disabled
Source	Barra (SRC 1)
Min Volt	0.250 pu
Reach	1.00 ohms
Angle	30 deg
Pickup Delay	0.000 s
Reset Delay	0.000 s
Block	OFF
Target	Self-reset
Events	Disabled

PHASE CURRENT

PHASE TOC [GROUP 2]

PHASE TOC1: Function	Disabled
PHASE TOC1: Signal Source	Barra (SRC 1)
PHASE TOC1: Input	Phasor
PHASE TOC1: Pickup	1.000 pu
PHASE TOC1: Curve	IEEE Mod Inv
PHASE TOC1: TD Multiplier	1.00
PHASE TOC1: Reset	Instantaneous

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DESCRIPTION: (NONE)
TEXT COLOR

PHASE TOC [GROUP 2] (continued from last page)

PHASE TOC1: Voltage Restraint	Disabled
PHASE TOC1: Block A	OFF
PHASE TOC1: Block B	OFF
PHASE TOC1: Block C	OFF
PHASE TOC1: Target	Self-reset
PHASE TOC1: Events	Disabled
PHASE TOC2: Function	Disabled
PHASE TOC2: Signal Source	Barra (SRC 1)
PHASE TOC2: Input	Phasor
PHASE TOC2: Pickup	1.000 pu
PHASE TOC2: Curve	IEEE Mod Inv
PHASE TOC2: TD Multiplier	1.00
PHASE TOC2: Reset	Instantaneous
PHASE TOC2: Voltage Restraint	Disabled
PHASE TOC2: Block A	OFF
PHASE TOC2: Block B	OFF
PHASE TOC2: Block C	OFF
PHASE TOC2: Target	Self-reset
PHASE TOC2: Events	Disabled

PHASE IOC [GROUP 2]

PHASE IOC1: Function	Disabled
PHASE IOC1: Source	Barra (SRC 1)
PHASE IOC1: Pickup	1.000 pu
PHASE IOC1: Delay	0.00 s
PHASE IOC1: Reset Delay	0.00 s
PHASE IOC1: Block A	OFF
PHASE IOC1: Block B	OFF
PHASE IOC1: Block C	OFF
PHASE IOC1: Target	Self-reset
PHASE IOC1: Events	Disabled
PHASE IOC2: Function	Disabled
PHASE IOC2: Source	Barra (SRC 1)
PHASE IOC2: Pickup	1.000 pu
PHASE IOC2: Delay	0.00 s
PHASE IOC2: Reset Delay	0.00 s
PHASE IOC2: Block A	OFF
PHASE IOC2: Block B	OFF
PHASE IOC2: Block C	OFF
PHASE IOC2: Target	Self-reset
PHASE IOC2: Events	Disabled

PHASE DIRECTIONAL [GROUP 2]

PHASE DIR1: Function	Disabled
PHASE DIR1: Source	Barra (SRC 1)
PHASE DIR1: Block	OFF
PHASE DIR1: ECA	30 deg
PHASE DIR1: Pol V Threshold	0.700 pu
PHASE DIR1: Block when V Mem Exp	No
PHASE DIR1: Target	Self-reset
PHASE DIR1: Events	Disabled
PHASE DIR2: Function	Disabled
PHASE DIR2: Source	Barra (SRC 1)
PHASE DIR2: Block	OFF
PHASE DIR2: ECA	30 deg
PHASE DIR2: Pol V Threshold	0.700 pu
PHASE DIR2: Block when V Mem Exp	No
PHASE DIR2: Target	Self-reset
PHASE DIR2: Events	Disabled

NEUTRAL CURRENT

NEUTRAL TOC [GROUP 2]

NEUTRAL TOC1: Function	Disabled
NEUTRAL TOC1: Source	Barra (SRC 1)
NEUTRAL TOC1: Input	Phasor

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NEUTRAL TOC [GROUP 2] (continued from last page)

NEUTRAL TOC1: Pickup	1.000 pu
NEUTRAL TOC1: Curve	IEEE Mod Inv
NEUTRAL TOC1: TD Multiplier	1.00
NEUTRAL TOC1: Reset	Instantaneous
NEUTRAL TOC1: Block	OFF
NEUTRAL TOC1: Target	Self-reset
NEUTRAL TOC1: Events	Disabled
NEUTRAL TOC2: Function	Disabled
NEUTRAL TOC2: Source	Barra (SRC 1)
NEUTRAL TOC2: Input	Phasor
NEUTRAL TOC2: Pickup	1.000 pu
NEUTRAL TOC2: Curve	IEEE Mod Inv
NEUTRAL TOC2: TD Multiplier	1.00
NEUTRAL TOC2: Reset	Instantaneous
NEUTRAL TOC2: Block	OFF
NEUTRAL TOC2: Target	Self-reset
NEUTRAL TOC2: Events	Disabled

NEUTRAL IOC [GROUP 2]

NEUTRAL IOC1: Function	Disabled
NEUTRAL IOC1: Source	Barra (SRC 1)
NEUTRAL IOC1: Pickup	1.000 pu
NEUTRAL IOC1: Delay	0.00 s
NEUTRAL IOC1: Reset Delay	0.00 s
NEUTRAL IOC1: Block	OFF
NEUTRAL IOC1: Target	Self-reset
NEUTRAL IOC1: Events	Disabled
NEUTRAL IOC2: Function	Disabled
NEUTRAL IOC2: Source	Barra (SRC 1)
NEUTRAL IOC2: Pickup	1.000 pu
NEUTRAL IOC2: Delay	0.00 s
NEUTRAL IOC2: Reset Delay	0.00 s
NEUTRAL IOC2: Block	OFF
NEUTRAL IOC2: Target	Self-reset
NEUTRAL IOC2: Events	Disabled

NEUTRAL DIRECTIONAL OC [GROUP 2]

NEUTRAL DIR OC1: Function	Disabled
NEUTRAL DIR OC1: Source	Barra (SRC 1)
NEUTRAL DIR OC1: Polarizing	Voltage
NEUTRAL DIR OC1: Polarizing Volt	Calculated V0
NEUTRAL DIR OC1: Op Current	Calculated 3I0
NEUTRAL DIR OC1: POS SEQ Restraint	0.063
NEUTRAL DIR OC1: Offset	0.00 ohms
NEUTRAL DIR OC1: Forward ECA	75 ° Lag
NEUTRAL DIR OC1: Forward Limit Angle	90 deg
NEUTRAL DIR OC1: Forward Pickup	0.050 pu
NEUTRAL DIR OC1: Reverse Limit Angle	90 deg
NEUTRAL DIR OC1: Reverse Pickup	0.050 pu
NEUTRAL DIR OC1: Block	OFF
NEUTRAL DIR OC1: Target	Self-reset
NEUTRAL DIR OC1: Events	Disabled
NEUTRAL DIR OC2: Function	Disabled
NEUTRAL DIR OC2: Source	Barra (SRC 1)
NEUTRAL DIR OC2: Polarizing	Voltage
NEUTRAL DIR OC2: Polarizing Volt	Calculated V0
NEUTRAL DIR OC2: Op Current	Calculated 3I0
NEUTRAL DIR OC2: POS SEQ Restraint	0.063
NEUTRAL DIR OC2: Offset	0.00 ohms
NEUTRAL DIR OC2: Forward ECA	75 ° Lag
NEUTRAL DIR OC2: Forward Limit Angle	90 deg
NEUTRAL DIR OC2: Forward Pickup	0.050 pu
NEUTRAL DIR OC2: Reverse Limit Angle	90 deg
NEUTRAL DIR OC2: Reverse Pickup	0.050 pu
NEUTRAL DIR OC2: Block	OFF

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DESCRIPTION: (NONE)
TEXT COLOR

NEUTRAL DIRECTIONAL OC [GROUP 2] (continued from last page)

NEUTRAL DIR OC2: Target	Self-reset
NEUTRAL DIR OC2: Events	Disabled

WATTMETRIC GROUND FAULT [GROUP 2]

WATTMETRIC GND FLT 1: Function	Disabled
WATTMETRIC GND FLT 1: Source	Barra (SRC 1)
WATTMETRIC GND FLT 1: Voltage	Calculated VN
WATTMETRIC GND FLT 1: OV Pickup	0.20 pu
WATTMETRIC GND FLT 1: Current	Calculated IN
WATTMETRIC GND FLT 1: OC Pickup	0.060 pu
WATTMETRIC GND FLT 1: OC Pickup Delay	0.20 s
WATTMETRIC GND FLT 1: Power Pickup	0.100 pu
WATTMETRIC GND FLT 1: Ref Power	0.500 pu
WATTMETRIC GND FLT 1: ECA	0 ° Lag
WATTMETRIC GND FLT 1: Power Pickup Delay	0.20 s
WATTMETRIC GND FLT 1: Curve	Definite Time
WATTMETRIC GND FLT 1: Multiplier	1.00 s
WATTMETRIC GND FLT 1: Block	OFF
WATTMETRIC GND FLT 1: Target	Self-reset
WATTMETRIC GND FLT 1: Events	Disabled
WATTMETRIC GND FLT 2: Function	Disabled
WATTMETRIC GND FLT 2: Source	Barra (SRC 1)
WATTMETRIC GND FLT 2: Voltage	Calculated VN
WATTMETRIC GND FLT 2: OV Pickup	0.20 pu
WATTMETRIC GND FLT 2: Current	Calculated IN
WATTMETRIC GND FLT 2: OC Pickup	0.060 pu
WATTMETRIC GND FLT 2: OC Pickup Delay	0.20 s
WATTMETRIC GND FLT 2: Power Pickup	0.100 pu
WATTMETRIC GND FLT 2: Ref Power	0.500 pu
WATTMETRIC GND FLT 2: ECA	0 ° Lag
WATTMETRIC GND FLT 2: Power Pickup Delay	0.20 s
WATTMETRIC GND FLT 2: Curve	Definite Time
WATTMETRIC GND FLT 2: Multiplier	1.00 s
WATTMETRIC GND FLT 2: Block	OFF
WATTMETRIC GND FLT 2: Target	Self-reset
WATTMETRIC GND FLT 2: Events	Disabled

GROUND CURRENT

GROUND TOC [GROUP 2]

GROUND TOC1: Function	Disabled
GROUND TOC1: Source	Barra (SRC 1)
GROUND TOC1: Input	Phasor
GROUND TOC1: Pickup	1.000 pu
GROUND TOC1: Curve	IEEE Mod Inv
GROUND TOC1: TD Multiplier	1.00
GROUND TOC1: Reset	Instantaneous
GROUND TOC1: Block	OFF
GROUND TOC1: Target	Self-reset
GROUND TOC1: Events	Disabled
GROUND TOC2: Function	Disabled
GROUND TOC2: Source	Barra (SRC 1)
GROUND TOC2: Input	Phasor
GROUND TOC2: Pickup	1.000 pu
GROUND TOC2: Curve	IEEE Mod Inv
GROUND TOC2: TD Multiplier	1.00
GROUND TOC2: Reset	Instantaneous
GROUND TOC2: Block	OFF
GROUND TOC2: Target	Self-reset
GROUND TOC2: Events	Disabled

GROUND IOC [GROUP 2]

GROUND IOC1: Function	Disabled
GROUND IOC1: Source	Barra (SRC 1)
GROUND IOC1: Pickup	1.000 pu
GROUND IOC1: Delay	0.00 s

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GROUND IOC [GROUP 2] (continued from last page)

GROUND IOC1: Reset Delay	0.00 s
GROUND IOC1: Block	OFF
GROUND IOC1: Target	Self-reset
GROUND IOC1: Events	Disabled
GROUND IOC2: Function	Disabled
GROUND IOC2: Source	Barra (SRC 1)
GROUND IOC2: Pickup	1.000 pu
GROUND IOC2: Delay	0.00 s
GROUND IOC2: Reset Delay	0.00 s
GROUND IOC2: Block	OFF
GROUND IOC2: Target	Self-reset
GROUND IOC2: Events	Disabled

NEGATIVE SEQUENCE CURRENT

NEGATIVE SEQUENCE TOC [GROUP 2]

NEGATIVE SEQ TOC1: Function	Disabled
NEGATIVE SEQ TOC1: Source	Barra (SRC 1)
NEGATIVE SEQ TOC1: Pickup	1.000 pu
NEGATIVE SEQ TOC1: Curve	IEEE Mod Inv
NEGATIVE SEQ TOC1: TD Multiplier	1.00
NEGATIVE SEQ TOC1: Reset	Instantaneous
NEGATIVE SEQ TOC1: Block	OFF
NEGATIVE SEQ TOC1: Target	Self-reset
NEGATIVE SEQ TOC1: Events	Disabled
NEGATIVE SEQ TOC2: Function	Disabled
NEGATIVE SEQ TOC2: Source	Barra (SRC 1)
NEGATIVE SEQ TOC2: Pickup	1.000 pu
NEGATIVE SEQ TOC2: Curve	IEEE Mod Inv
NEGATIVE SEQ TOC2: TD Multiplier	1.00
NEGATIVE SEQ TOC2: Reset	Instantaneous
NEGATIVE SEQ TOC2: Block	OFF
NEGATIVE SEQ TOC2: Target	Self-reset
NEGATIVE SEQ TOC2: Events	Disabled

NEGATIVE SEQUENCE IOC [GROUP 2]

NEGATIVE SEQ IOC1: Function	Disabled
NEGATIVE SEQ IOC1: Source	Barra (SRC 1)
NEGATIVE SEQ IOC1: Pickup	1.000 pu
NEGATIVE SEQ IOC1: Delay	0.00 s
NEGATIVE SEQ IOC1: Reset Delay	0.00 s
NEGATIVE SEQ IOC1: Block	OFF
NEGATIVE SEQ IOC1: Target	Self-reset
NEGATIVE SEQ IOC1: Events	Disabled
NEGATIVE SEQ IOC2: Function	Disabled
NEGATIVE SEQ IOC2: Source	Barra (SRC 1)
NEGATIVE SEQ IOC2: Pickup	1.000 pu
NEGATIVE SEQ IOC2: Delay	0.00 s
NEGATIVE SEQ IOC2: Reset Delay	0.00 s
NEGATIVE SEQ IOC2: Block	OFF
NEGATIVE SEQ IOC2: Target	Self-reset
NEGATIVE SEQ IOC2: Events	Disabled

NEGATIVE SEQUENCE DIRECTIONAL OC [GROUP 2]

NEGATIVE SEQ DIR OC1: Function	Disabled
NEGATIVE SEQ DIR OC1: Source	Barra (SRC 1)
NEGATIVE SEQ DIR OC1: Offset	0.00 ohms
NEGATIVE SEQ DIR OC1: Type	Neg Sequence
NEGATIVE SEQ DIR OC1: POS SEQ Restraint	0.063
NEGATIVE SEQ DIR OC1: Forward ECA	75 ° Lag
NEGATIVE SEQ DIR OC1: Forward Limit Angle	90 deg
NEGATIVE SEQ DIR OC1: Forward Pickup	0.050 pu
NEGATIVE SEQ DIR OC1: Reverse Limit Angle	90 deg
NEGATIVE SEQ DIR OC1: Reverse Pickup	0.050 pu
NEGATIVE SEQ DIR OC1: Block	OFF
NEGATIVE SEQ DIR OC1: Target	Self-reset

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NEGATIVE SEQUENCE DIRECTIONAL OC [GROUP 2] (continued from last page)

NEGATIVE SEQ DIR OC1: Events	Disabled
NEGATIVE SEQ DIR OC2: Function	Disabled
NEGATIVE SEQ DIR OC2: Source	Barra (SRC 1)
NEGATIVE SEQ DIR OC2: Offset	0.00 ohms
NEGATIVE SEQ DIR OC2: Type	Neg Sequence
NEGATIVE SEQ DIR OC2: POS SEQ Restraint	0.063
NEGATIVE SEQ DIR OC2: Forward ECA	75 ° Lag
NEGATIVE SEQ DIR OC2: Forward Limit Angle	90 deg
NEGATIVE SEQ DIR OC2: Forward Pickup	0.050 pu
NEGATIVE SEQ DIR OC2: Reverse Limit Angle	90 deg
NEGATIVE SEQ DIR OC2: Reverse Pickup	0.050 pu
NEGATIVE SEQ DIR OC2: Block	OFF
NEGATIVE SEQ DIR OC2: Target	Self-reset
NEGATIVE SEQ DIR OC2: Events	Disabled

BREAKER FAILURE [GROUP 2]

BF1: Function	Disabled
BF1: Mode	3-Pole
BF1: Source	Barra (SRC 1)
BF1: Current Supervision	Yes
BF1: Use Seal-In	Yes
BF1: Three Pole Initiate	OFF
BF1: Block	OFF
BF1: Phase Current Supv Pickup	1.050 pu
BF1: Neutral Current Supv Pickup	1.050 pu
BF1: Use Timer 1	Yes
BF1: Timer 1 Pickup Delay	0.000 s
BF1: Use Timer 2	Yes
BF1: Timer 2 Pickup Delay	0.000 s
BF1: Use Timer 3	Yes
BF1: Timer 3 Pickup Delay	0.000 s
BF1: Breaker Pos1 Phase A/3P	OFF
BF1: Breaker Pos2 Phase A/3P	OFF
BF1: Breaker Test On	OFF
BF1: Phase Current HiSet Pickup	1.050 pu
BF1: Neutral Current HiSet Pickup	1.050 pu
BF1: Phase Current LoSet Pickup	1.050 pu
BF1: Neutral Current LoSet Pickup	1.050 pu
BF1: LoSet Time Delay	0.000 s
BF1: Trip Dropout Delay	0.000 s
BF1: Target	Self-reset
BF1: Events	Disabled
BF1: Phase A Initiate	OFF
BF1: Phase B Initiate	OFF
BF1: Phase C Initiate	OFF
BF1: Breaker Pos1 Phase B	OFF
BF1: Breaker Pos1 Phase C	OFF
BF1: Breaker Pos2 Phase B	OFF
BF1: Breaker Pos2 Phase C	OFF
BF2: Function	Disabled
BF2: Mode	3-Pole
BF2: Source	Barra (SRC 1)
BF2: Current Supervision	Yes
BF2: Use Seal-In	Yes
BF2: Three Pole Initiate	OFF
BF2: Block	OFF
BF2: Phase Current Supv Pickup	1.050 pu
BF2: Neutral Current Supv Pickup	1.050 pu
BF2: Use Timer 1	Yes
BF2: Timer 1 Pickup Delay	0.000 s
BF2: Use Timer 2	Yes
BF2: Timer 2 Pickup Delay	0.000 s
BF2: Use Timer 3	Yes
BF2: Timer 3 Pickup Delay	0.000 s
BF2: Breaker Pos1 Phase A/3P	OFF

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BREAKER FAILURE [GROUP 2] (continued from last page)

BF2: Breaker Pos2 Phase A/3P	OFF
BF2: Breaker Test On	OFF
BF2: Phase Current HiSet Pickup	1.050 pu
BF2: Neutral Current HiSet Pickup	1.050 pu
BF2: Phase Current LoSet Pickup	1.050 pu
BF2: Neutral Current LoSet Pickup	1.050 pu
BF2: LoSet Time Delay	0.000 s
BF2: Trip Dropout Delay	0.000 s
BF2: Target	Self-reset
BF2: Events	Disabled
BF2: Phase A Initiate	OFF
BF2: Phase B Initiate	OFF
BF2: Phase C Initiate	OFF
BF2: Breaker Pos1 Phase B	OFF
BF2: Breaker Pos1 Phase C	OFF
BF2: Breaker Pos2 Phase B	OFF
BF2: Breaker Pos2 Phase C	OFF

VOLTAGE ELEMENTS

PHASE UV [GROUP 2]

PHASE UV1: Function	Disabled
PHASE UV1: Signal Source	Barra (SRC 1)
PHASE UV1: Mode	Phase to Ground
PHASE UV1: Pickup	1.000 pu
PHASE UV1: Curve	Definite Time
PHASE UV1: Delay	1.00 s
PHASE UV1: Minimum Voltage	0.100 pu
PHASE UV1: Block	OFF
PHASE UV1: Target	Self-reset
PHASE UV1: Events	Disabled
PHASE UV2: Function	Disabled
PHASE UV2: Signal Source	Barra (SRC 1)
PHASE UV2: Mode	Phase to Ground
PHASE UV2: Pickup	1.000 pu
PHASE UV2: Curve	Definite Time
PHASE UV2: Delay	1.00 s
PHASE UV2: Minimum Voltage	0.100 pu
PHASE UV2: Block	OFF
PHASE UV2: Target	Self-reset
PHASE UV2: Events	Disabled
PHASE UV3: Function	Disabled
PHASE UV3: Signal Source	Barra (SRC 1)
PHASE UV3: Mode	Phase to Ground
PHASE UV3: Pickup	1.000 pu
PHASE UV3: Curve	Definite Time
PHASE UV3: Delay	1.00 s
PHASE UV3: Minimum Voltage	0.100 pu
PHASE UV3: Block	OFF
PHASE UV3: Target	Self-reset
PHASE UV3: Events	Disabled

PHASE OV [GROUP 2]

PHASE OV1: Function	Disabled
PHASE OV1: Source	Barra (SRC 1)
PHASE OV1: Pickup	1.000 pu
PHASE OV1: Delay	1.00 s
PHASE OV1: Reset Delay	1.00 s
PHASE OV1: Block	OFF
PHASE OV1: Target	Self-reset
PHASE OV1: Events	Disabled

NEUTRAL OV [GROUP 2]

NEUTRAL OV 1: Function	Disabled
NEUTRAL OV 1: Source	Barra (SRC 1)
NEUTRAL OV 1: Pickup	0.300 pu

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NEUTRAL OV [GROUP 2] (continued from last page)

NEUTRAL OV 1: Curve	Definite Time
NEUTRAL OV 1: Pickup Delay	1.00 s
NEUTRAL OV 1: Reset Delay	1.00 s
NEUTRAL OV 1: Block	OFF
NEUTRAL OV 1: Target	Self-reset
NEUTRAL OV 1: Events	Disabled
NEUTRAL OV 2: Function	Disabled
NEUTRAL OV 2: Source	Barra (SRC 1)
NEUTRAL OV 2: Pickup	0.300 pu
NEUTRAL OV 2: Curve	Definite Time
NEUTRAL OV 2: Pickup Delay	1.00 s
NEUTRAL OV 2: Reset Delay	1.00 s
NEUTRAL OV 2: Block	OFF
NEUTRAL OV 2: Target	Self-reset
NEUTRAL OV 2: Events	Disabled
NEUTRAL OV 3: Function	Disabled
NEUTRAL OV 3: Source	Barra (SRC 1)
NEUTRAL OV 3: Pickup	0.300 pu
NEUTRAL OV 3: Curve	Definite Time
NEUTRAL OV 3: Pickup Delay	1.00 s
NEUTRAL OV 3: Reset Delay	1.00 s
NEUTRAL OV 3: Block	OFF
NEUTRAL OV 3: Target	Self-reset
NEUTRAL OV 3: Events	Disabled

NEGATIVE SEQUENCE OV [GROUP 2]

NEG SEQ OV1: Function	Disabled
NEG SEQ OV1: Source	Barra (SRC 1)
NEG SEQ OV1: Pickup	0.300 pu
NEG SEQ OV1: Pickup Delay	0.50 s
NEG SEQ OV1: Reset Delay	0.50 s
NEG SEQ OV1: Block	OFF
NEG SEQ OV1: Target	Self-reset
NEG SEQ OV1: Events	Disabled
NEG SEQ OV2: Function	Disabled
NEG SEQ OV2: Source	Barra (SRC 1)
NEG SEQ OV2: Pickup	0.300 pu
NEG SEQ OV2: Pickup Delay	0.50 s
NEG SEQ OV2: Reset Delay	0.50 s
NEG SEQ OV2: Block	OFF
NEG SEQ OV2: Target	Self-reset
NEG SEQ OV2: Events	Disabled
NEG SEQ OV3: Function	Disabled
NEG SEQ OV3: Source	Barra (SRC 1)
NEG SEQ OV3: Pickup	0.300 pu
NEG SEQ OV3: Pickup Delay	0.50 s
NEG SEQ OV3: Reset Delay	0.50 s
NEG SEQ OV3: Block	OFF
NEG SEQ OV3: Target	Self-reset
NEG SEQ OV3: Events	Disabled

AUXILIARY UV [GROUP 2]

AUXILIARY UV 1: Function	Disabled
AUXILIARY UV 1: Source	Barra (SRC 1)
AUXILIARY UV 1: Pickup	0.700 pu
AUXILIARY UV 1: Curve	Definite Time
AUXILIARY UV 1: Delay	1.00 s
AUXILIARY UV 1: Minimum Voltage	0.100 pu
AUXILIARY UV 1: Block	OFF
AUXILIARY UV 1: Target	Self-reset
AUXILIARY UV 1: Events	Disabled

AUXILIARY OV [GROUP 2]

AUXILIARY OV 1: Function	Disabled
AUXILIARY OV 1: Source	Barra (SRC 1)

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DESCRIPTION: (NONE)
TEXT COLOR

AUXILIARY OV [GROUP 2] (continued from last page)

AUXILIARY OV 1: Pickup	0.300 pu
AUXILIARY OV 1: Pickup Delay	1.00 s
AUXILIARY OV 1: Reset Delay	1.00 s
AUXILIARY OV 1: Block	OFF
AUXILIARY OV 1: Target	Self-reset
AUXILIARY OV 1: Events	Disabled

COMPENSATED OVERVOLTAGE [GROUP 2]

Compensated OV Function	Disabled
Compensated OV Source	Barra (SRC 1)
Compensated OV Zc Mag	2.00 ohm
Compensated OV Zc Ang	90 deg
Compensated OV I_1max	0.20 pu
Compensated OV STG1 PKP	1.300 pu
Compensated OV STG1 Delay	1.00 sec
Compensated OV STG2 PKP	1.300 pu
Compensated OV STG2 Delay	1.00 sec
Compensated OV STG3 PKP	1.300 pu
Compensated OV STG3 Delay	1.00 sec
Compensated OV Block	OFF
Compensated OV Target	Self-reset
Compensated OV Events	Disabled

POWER

SENSITIVE DIRECTIONAL POWER [GROUP 2]

SENS DIR POWER1: Function	Disabled
SENS DIR POWER1: Signal Source	Barra (SRC 1)
SENS DIR POWER1: Sensitive Directional Power RCA	0 deg
SENS DIR POWER1: Sensitive Directional Power Calibration	0.00 deg
SENS DIR POWER1: Stage 1 SMIN	0.100 pu
SENS DIR POWER1: Stage 1 Delay	0.50 s
SENS DIR POWER1: Stage 2 SMIN	0.100 pu
SENS DIR POWER1: Stage 2 Delay	20.00 s
SENS DIR POWER1: Block	OFF
SENS DIR POWER1: Target	Self-reset
SENS DIR POWER1: Events	Disabled
SENS DIR POWER2: Function	Disabled
SENS DIR POWER2: Signal Source	Barra (SRC 1)
SENS DIR POWER2: Sensitive Directional Power RCA	0 deg
SENS DIR POWER2: Sensitive Directional Power Calibration	0.00 deg
SENS DIR POWER2: Stage 1 SMIN	0.100 pu
SENS DIR POWER2: Stage 1 Delay	0.50 s
SENS DIR POWER2: Stage 2 SMIN	0.100 pu
SENS DIR POWER2: Stage 2 Delay	20.00 s
SENS DIR POWER2: Block	OFF
SENS DIR POWER2: Target	Self-reset
SENS DIR POWER2: Events	Disabled

GROUP 3

LINE PICKUP [GROUP 3]

Function	Disabled
Signal Source	Barra (SRC 1)
Phase IOC Line Pickup	1.000 pu
UV Pickup	0.700 pu
Line End Open Pickup Delay	0.150 s
Line End Open Reset Delay	0.090 s
OV Pickup Delay	0.040 s
Autoreclose Coordination Bypass	Enabled
Autoreclose Coordination Pickup Delay	0.045 s
Autoreclose Coordination Reset Delay	0.005 s
Terminal Open	OFF
AR Accelerate	OFF
Distance Trip	Enabled
Block	OFF
Target	Self-reset

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DESCRIPTION: (NONE)
TEXT COLOR

LINE PICKUP [GROUP 3] (continued from last page)

Events	Disabled

DISTANCE

DISTANCE [GROUP 3]

Source	Barra (SRC 1)
Memory Duration	10 cycles
Force Self-Polar	OFF
Force Mem-Polar	OFF

PHASE DISTANCE [GROUP 3]

PHASE DISTANCE Z1: Function	Disabled
PHASE DISTANCE Z1: Direction	Forward
PHASE DISTANCE Z1: Shape	Mho
PHASE DISTANCE Z1: Xfmr Vol Connection	None
PHASE DISTANCE Z1: Xfmr Curr Connection	None
PHASE DISTANCE Z1: Reach	2.00 ohms
PHASE DISTANCE Z1: RCA	85 deg
PHASE DISTANCE Z1: Rev Reach	2.00 ohms
PHASE DISTANCE Z1: Rev Reach RCA	85 deg
PHASE DISTANCE Z1: Comp Limit	90 deg
PHASE DISTANCE Z1: DIR RCA	85 deg
PHASE DISTANCE Z1: DIR Comp Limit	90 deg
PHASE DISTANCE Z1: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z1: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z1: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z1: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z1: Supervision	0.200 pu
PHASE DISTANCE Z1: Volt Level	0.000 pu
PHASE DISTANCE Z1: Delay	0.000 s
PHASE DISTANCE Z1: Block	OFF
PHASE DISTANCE Z1: Target	Self-reset
PHASE DISTANCE Z1: Events	Disabled
PHASE DISTANCE Z2: Function	Disabled
PHASE DISTANCE Z2: Direction	Forward
PHASE DISTANCE Z2: Shape	Mho
PHASE DISTANCE Z2: Xfmr Vol Connection	None
PHASE DISTANCE Z2: Xfmr Curr Connection	None
PHASE DISTANCE Z2: Reach	2.00 ohms
PHASE DISTANCE Z2: RCA	85 deg
PHASE DISTANCE Z2: Rev Reach	2.00 ohms
PHASE DISTANCE Z2: Rev Reach RCA	85 deg
PHASE DISTANCE Z2: Comp Limit	90 deg
PHASE DISTANCE Z2: DIR RCA	85 deg
PHASE DISTANCE Z2: DIR Comp Limit	90 deg
PHASE DISTANCE Z2: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z2: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z2: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z2: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z2: Supervision	0.200 pu
PHASE DISTANCE Z2: Volt Level	0.000 pu
PHASE DISTANCE Z2: Delay	0.000 s
PHASE DISTANCE Z2: Block	OFF
PHASE DISTANCE Z2: Target	Self-reset
PHASE DISTANCE Z2: Events	Disabled
PHASE DISTANCE Z3: Function	Disabled
PHASE DISTANCE Z3: Direction	Forward
PHASE DISTANCE Z3: Shape	Mho
PHASE DISTANCE Z3: Xfmr Vol Connection	None
PHASE DISTANCE Z3: Xfmr Curr Connection	None
PHASE DISTANCE Z3: Reach	2.00 ohms
PHASE DISTANCE Z3: RCA	85 deg
PHASE DISTANCE Z3: Rev Reach	2.00 ohms
PHASE DISTANCE Z3: Rev Reach RCA	85 deg
PHASE DISTANCE Z3: Comp Limit	90 deg
PHASE DISTANCE Z3: DIR RCA	85 deg

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DESCRIPTION: (NONE)
TEXT COLOR

PHASE DISTANCE [GROUP 3] (continued from last page)

PHASE DISTANCE Z3: DIR Comp Limit	90 deg
PHASE DISTANCE Z3: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z3: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z3: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z3: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z3: Supervision	0.200 pu
PHASE DISTANCE Z3: Volt Level	0.000 pu
PHASE DISTANCE Z3: Delay	0.000 s
PHASE DISTANCE Z3: Block	OFF
PHASE DISTANCE Z3: Target	Self-reset
PHASE DISTANCE Z3: Events	Disabled
PHASE DISTANCE Z4: Function	Disabled
PHASE DISTANCE Z4: Direction	Forward
PHASE DISTANCE Z4: Shape	Mho
PHASE DISTANCE Z4: Xfmr Vol Connection	None
PHASE DISTANCE Z4: Xfmr Curr Connection	None
PHASE DISTANCE Z4: Reach	2.00 ohms
PHASE DISTANCE Z4: RCA	85 deg
PHASE DISTANCE Z4: Rev Reach	2.00 ohms
PHASE DISTANCE Z4: Rev Reach RCA	85 deg
PHASE DISTANCE Z4: Comp Limit	90 deg
PHASE DISTANCE Z4: DIR RCA	85 deg
PHASE DISTANCE Z4: DIR Comp Limit	90 deg
PHASE DISTANCE Z4: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z4: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z4: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z4: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z4: Supervision	0.200 pu
PHASE DISTANCE Z4: Volt Level	0.000 pu
PHASE DISTANCE Z4: Delay	0.000 s
PHASE DISTANCE Z4: Block	OFF
PHASE DISTANCE Z4: Target	Self-reset
PHASE DISTANCE Z4: Events	Disabled
PHASE DISTANCE Z5: Function	Disabled
PHASE DISTANCE Z5: Direction	Forward
PHASE DISTANCE Z5: Shape	Mho
PHASE DISTANCE Z5: Xfmr Vol Connection	None
PHASE DISTANCE Z5: Xfmr Curr Connection	None
PHASE DISTANCE Z5: Reach	2.00 ohms
PHASE DISTANCE Z5: RCA	85 deg
PHASE DISTANCE Z5: Rev Reach	2.00 ohms
PHASE DISTANCE Z5: Rev Reach RCA	85 deg
PHASE DISTANCE Z5: Comp Limit	90 deg
PHASE DISTANCE Z5: DIR RCA	85 deg
PHASE DISTANCE Z5: DIR Comp Limit	90 deg
PHASE DISTANCE Z5: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z5: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z5: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z5: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z5: Supervision	0.200 pu
PHASE DISTANCE Z5: Volt Level	0.000 pu
PHASE DISTANCE Z5: Delay	0.000 s
PHASE DISTANCE Z5: Block	OFF
PHASE DISTANCE Z5: Target	Self-reset
PHASE DISTANCE Z5: Events	Disabled

GROUND DISTANCE [GROUP 3]

GROUND DISTANCE Z1: Function	Disabled
GROUND DISTANCE Z1: Direction	Forward
GROUND DISTANCE Z1: Shape	Mho
GROUND DISTANCE Z1: Z0/Z1 Mag	2.70
GROUND DISTANCE Z1: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z1: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z1: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z1: Reach	2.00 ohms

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DESCRIPTION: (NONE)
TEXT COLOR

GROUND DISTANCE [GROUP 3] (continued from last page)

GROUND DISTANCE Z1: RCA	85 deg
GROUND DISTANCE Z1: Rev Reach	2.00 ohms
GROUND DISTANCE Z1: Rev Reach RCA	85 deg
GROUND DISTANCE Z1: POL Current	Zero-seq
GROUND DISTANCE Z1: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z1: Comp Limit	90 deg
GROUND DISTANCE Z1: DIR RCA	85 deg
GROUND DISTANCE Z1: DIR Comp Limit	90 deg
GROUND DISTANCE Z1: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z1: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z1: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z1: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z1: Supervision	0.200 pu
GROUND DISTANCE Z1: Volt Level	0.000 pu
GROUND DISTANCE Z1: Delay	0.000 s
GROUND DISTANCE Z1: Block	OFF
GROUND DISTANCE Z1: Target	Self-reset
GROUND DISTANCE Z1: Events	Disabled
GROUND DISTANCE Z2: Function	Disabled
GROUND DISTANCE Z2: Direction	Forward
GROUND DISTANCE Z2: Shape	Mho
GROUND DISTANCE Z2: Z0/Z1 Mag	2.70
GROUND DISTANCE Z2: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z2: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z2: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z2: Reach	2.00 ohms
GROUND DISTANCE Z2: RCA	85 deg
GROUND DISTANCE Z2: Rev Reach	2.00 ohms
GROUND DISTANCE Z2: Rev Reach RCA	85 deg
GROUND DISTANCE Z2: POL Current	Zero-seq
GROUND DISTANCE Z2: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z2: Comp Limit	90 deg
GROUND DISTANCE Z2: DIR RCA	85 deg
GROUND DISTANCE Z2: DIR Comp Limit	90 deg
GROUND DISTANCE Z2: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z2: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z2: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z2: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z2: Supervision	0.200 pu
GROUND DISTANCE Z2: Volt Level	0.000 pu
GROUND DISTANCE Z2: Delay	0.000 s
GROUND DISTANCE Z2: Block	OFF
GROUND DISTANCE Z2: Target	Self-reset
GROUND DISTANCE Z2: Events	Disabled
GROUND DISTANCE Z3: Function	Disabled
GROUND DISTANCE Z3: Direction	Forward
GROUND DISTANCE Z3: Shape	Mho
GROUND DISTANCE Z3: Z0/Z1 Mag	2.70
GROUND DISTANCE Z3: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z3: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z3: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z3: Reach	2.00 ohms
GROUND DISTANCE Z3: RCA	85 deg
GROUND DISTANCE Z3: Rev Reach	2.00 ohms
GROUND DISTANCE Z3: Rev Reach RCA	85 deg
GROUND DISTANCE Z3: POL Current	Zero-seq
GROUND DISTANCE Z3: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z3: Comp Limit	90 deg
GROUND DISTANCE Z3: DIR RCA	85 deg
GROUND DISTANCE Z3: DIR Comp Limit	90 deg
GROUND DISTANCE Z3: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z3: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z3: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z3: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z3: Supervision	0.200 pu

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DESCRIPTION: (NONE)
TEXT COLOR

GROUND DISTANCE [GROUP 3] (continued from last page)

GROUND DISTANCE Z3: Volt Level	0.000 pu
GROUND DISTANCE Z3: Delay	0.000 s
GROUND DISTANCE Z3: Block	OFF
GROUND DISTANCE Z3: Target	Self-reset
GROUND DISTANCE Z3: Events	Disabled
GROUND DISTANCE Z4: Function	Disabled
GROUND DISTANCE Z4: Direction	Forward
GROUND DISTANCE Z4: Shape	Mho
GROUND DISTANCE Z4: Z0/Z1 Mag	2.70
GROUND DISTANCE Z4: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z4: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z4: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z4: Reach	2.00 ohms
GROUND DISTANCE Z4: RCA	85 deg
GROUND DISTANCE Z4: Rev Reach	2.00 ohms
GROUND DISTANCE Z4: Rev Reach RCA	85 deg
GROUND DISTANCE Z4: POL Current	Zero-seq
GROUND DISTANCE Z4: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z4: Comp Limit	90 deg
GROUND DISTANCE Z4: DIR RCA	85 deg
GROUND DISTANCE Z4: DIR Comp Limit	90 deg
GROUND DISTANCE Z4: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z4: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z4: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z4: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z4: Supervision	0.200 pu
GROUND DISTANCE Z4: Volt Level	0.000 pu
GROUND DISTANCE Z4: Delay	0.000 s
GROUND DISTANCE Z4: Block	OFF
GROUND DISTANCE Z4: Target	Self-reset
GROUND DISTANCE Z4: Events	Disabled
GROUND DISTANCE Z5: Function	Disabled
GROUND DISTANCE Z5: Direction	Forward
GROUND DISTANCE Z5: Shape	Mho
GROUND DISTANCE Z5: Z0/Z1 Mag	2.70
GROUND DISTANCE Z5: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z5: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z5: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z5: Reach	2.00 ohms
GROUND DISTANCE Z5: RCA	85 deg
GROUND DISTANCE Z5: Rev Reach	2.00 ohms
GROUND DISTANCE Z5: Rev Reach RCA	85 deg
GROUND DISTANCE Z5: POL Current	Zero-seq
GROUND DISTANCE Z5: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z5: Comp Limit	90 deg
GROUND DISTANCE Z5: DIR RCA	85 deg
GROUND DISTANCE Z5: DIR Comp Limit	90 deg
GROUND DISTANCE Z5: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z5: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z5: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z5: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z5: Supervision	0.200 pu
GROUND DISTANCE Z5: Volt Level	0.000 pu
GROUND DISTANCE Z5: Delay	0.000 s
GROUND DISTANCE Z5: Block	OFF
GROUND DISTANCE Z5: Target	Self-reset
GROUND DISTANCE Z5: Events	Disabled

POWER SWING DETECT [GROUP 3]

Function	Disabled
Source	Barra (SRC 1)
Shape	Mho Shape
Mode	Two Step
Supv	0.600 pu
Fwd Reach	50.00 ohms

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DESCRIPTION: (NONE)
TEXT COLOR

POWER SWING DETECT [GROUP 3] (continued from last page)

Quad Fwd Mid	60.00 ohms
Quad Fwd Out	70.00 ohms
Fwd Rca	75 deg
Rev Reach	50.00 ohms
Quad Rev Mid	60.00 ohms
Quad Rev Out	70.00 ohms
Rev Rca	75 deg
Outer Limit Angle	120 deg
Middle Limit Angle	90 deg
Inner Limit Angle	60 deg
Outer Rgt Bld	100.00 ohms
Outer Lft Bld	100.00 ohms
Midle Rgt Bld	100.00 ohms
Midle Lft Bld	100.00 ohms
Inner Rgt Bld	100.00 ohms
Inner Lft Bld	100.00 ohms
Delay 1 Pickup	0.030 s
Delay 1 Reset	0.050 s
Delay 2 Pickup	0.017 s
Delay 3 Pickup	0.009 s
Delay 4 Pickup	0.017 s
Seal-In Delay	0.400 s
Trip Mode	Delayed
Block	OFF
Target	Self-reset
Event	Disabled

LOAD ENCROACHMENT [GROUP 3]

Function	Disabled
Source	Barra (SRC 1)
Min Volt	0.250 pu
Reach	1.00 ohms
Angle	30 deg
Pickup Delay	0.000 s
Reset Delay	0.000 s
Block	OFF
Target	Self-reset
Events	Disabled

PHASE CURRENT

PHASE TOC [GROUP 3]

PHASE TOC1: Function	Disabled
PHASE TOC1: Signal Source	Barra (SRC 1)
PHASE TOC1: Input	Phasor
PHASE TOC1: Pickup	1.000 pu
PHASE TOC1: Curve	IEEE Mod Inv
PHASE TOC1: TD Multiplier	1.00
PHASE TOC1: Reset	Instantaneous
PHASE TOC1: Voltage Restraint	Disabled
PHASE TOC1: Block A	OFF
PHASE TOC1: Block B	OFF
PHASE TOC1: Block C	OFF
PHASE TOC1: Target	Self-reset
PHASE TOC1: Events	Disabled
PHASE TOC2: Function	Disabled
PHASE TOC2: Signal Source	Barra (SRC 1)
PHASE TOC2: Input	Phasor
PHASE TOC2: Pickup	1.000 pu
PHASE TOC2: Curve	IEEE Mod Inv
PHASE TOC2: TD Multiplier	1.00
PHASE TOC2: Reset	Instantaneous
PHASE TOC2: Voltage Restraint	Disabled
PHASE TOC2: Block A	OFF
PHASE TOC2: Block B	OFF
PHASE TOC2: Block C	OFF

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DESCRIPTION: (NONE)
TEXT COLOR

PHASE TOC [GROUP 3] (continued from last page)

PHASE TOC2: Target	Self-reset
PHASE TOC2: Events	Disabled

PHASE IOC [GROUP 3]

PHASE IOC1: Function	Disabled
PHASE IOC1: Source	Barra (SRC 1)
PHASE IOC1: Pickup	1.000 pu
PHASE IOC1: Delay	0.00 s
PHASE IOC1: Reset Delay	0.00 s
PHASE IOC1: Block A	OFF
PHASE IOC1: Block B	OFF
PHASE IOC1: Block C	OFF
PHASE IOC1: Target	Self-reset
PHASE IOC1: Events	Disabled
PHASE IOC2: Function	Disabled
PHASE IOC2: Source	Barra (SRC 1)
PHASE IOC2: Pickup	1.000 pu
PHASE IOC2: Delay	0.00 s
PHASE IOC2: Reset Delay	0.00 s
PHASE IOC2: Block A	OFF
PHASE IOC2: Block B	OFF
PHASE IOC2: Block C	OFF
PHASE IOC2: Target	Self-reset
PHASE IOC2: Events	Disabled

PHASE DIRECTIONAL [GROUP 3]

PHASE DIR1: Function	Disabled
PHASE DIR1: Source	Barra (SRC 1)
PHASE DIR1: Block	OFF
PHASE DIR1: ECA	30 deg
PHASE DIR1: Pol V Threshold	0.700 pu
PHASE DIR1: Block when V Mem Exp	No
PHASE DIR1: Target	Self-reset
PHASE DIR1: Events	Disabled
PHASE DIR2: Function	Disabled
PHASE DIR2: Source	Barra (SRC 1)
PHASE DIR2: Block	OFF
PHASE DIR2: ECA	30 deg
PHASE DIR2: Pol V Threshold	0.700 pu
PHASE DIR2: Block when V Mem Exp	No
PHASE DIR2: Target	Self-reset
PHASE DIR2: Events	Disabled

NEUTRAL CURRENT

NEUTRAL TOC [GROUP 3]

NEUTRAL TOC1: Function	Disabled
NEUTRAL TOC1: Source	Barra (SRC 1)
NEUTRAL TOC1: Input	Phasor
NEUTRAL TOC1: Pickup	1.000 pu
NEUTRAL TOC1: Curve	IEEE Mod Inv
NEUTRAL TOC1: TD Multiplier	1.00
NEUTRAL TOC1: Reset	Instantaneous
NEUTRAL TOC1: Block	OFF
NEUTRAL TOC1: Target	Self-reset
NEUTRAL TOC1: Events	Disabled
NEUTRAL TOC2: Function	Disabled
NEUTRAL TOC2: Source	Barra (SRC 1)
NEUTRAL TOC2: Input	Phasor
NEUTRAL TOC2: Pickup	1.000 pu
NEUTRAL TOC2: Curve	IEEE Mod Inv
NEUTRAL TOC2: TD Multiplier	1.00
NEUTRAL TOC2: Reset	Instantaneous
NEUTRAL TOC2: Block	OFF
NEUTRAL TOC2: Target	Self-reset
NEUTRAL TOC2: Events	Disabled

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DESCRIPTION: (NONE)
TEXT COLOR

NEUTRAL IOC [GROUP 3]

NEUTRAL IOC1: Function	Disabled
NEUTRAL IOC1: Source	Barra (SRC 1)
NEUTRAL IOC1: Pickup	1.000 pu
NEUTRAL IOC1: Delay	0.00 s
NEUTRAL IOC1: Reset Delay	0.00 s
NEUTRAL IOC1: Block	OFF
NEUTRAL IOC1: Target	Self-reset
NEUTRAL IOC1: Events	Disabled
NEUTRAL IOC2: Function	Disabled
NEUTRAL IOC2: Source	Barra (SRC 1)
NEUTRAL IOC2: Pickup	1.000 pu
NEUTRAL IOC2: Delay	0.00 s
NEUTRAL IOC2: Reset Delay	0.00 s
NEUTRAL IOC2: Block	OFF
NEUTRAL IOC2: Target	Self-reset
NEUTRAL IOC2: Events	Disabled

NEUTRAL DIRECTIONAL OC [GROUP 3]

NEUTRAL DIR OC1: Function	Disabled
NEUTRAL DIR OC1: Source	Barra (SRC 1)
NEUTRAL DIR OC1: Polarizing	Voltage
NEUTRAL DIR OC1: Polarizing Volt	Calculated V0
NEUTRAL DIR OC1: Op Current	Calculated 3I0
NEUTRAL DIR OC1: POS SEQ Restraint	0.063
NEUTRAL DIR OC1: Offset	0.00 ohms
NEUTRAL DIR OC1: Forward ECA	75 ° Lag
NEUTRAL DIR OC1: Forward Limit Angle	90 deg
NEUTRAL DIR OC1: Forward Pickup	0.050 pu
NEUTRAL DIR OC1: Reverse Limit Angle	90 deg
NEUTRAL DIR OC1: Reverse Pickup	0.050 pu
NEUTRAL DIR OC1: Block	OFF
NEUTRAL DIR OC1: Target	Self-reset
NEUTRAL DIR OC1: Events	Disabled
NEUTRAL DIR OC2: Function	Disabled
NEUTRAL DIR OC2: Source	Barra (SRC 1)
NEUTRAL DIR OC2: Polarizing	Voltage
NEUTRAL DIR OC2: Polarizing Volt	Calculated V0
NEUTRAL DIR OC2: Op Current	Calculated 3I0
NEUTRAL DIR OC2: POS SEQ Restraint	0.063
NEUTRAL DIR OC2: Offset	0.00 ohms
NEUTRAL DIR OC2: Forward ECA	75 ° Lag
NEUTRAL DIR OC2: Forward Limit Angle	90 deg
NEUTRAL DIR OC2: Forward Pickup	0.050 pu
NEUTRAL DIR OC2: Reverse Limit Angle	90 deg
NEUTRAL DIR OC2: Reverse Pickup	0.050 pu
NEUTRAL DIR OC2: Block	OFF
NEUTRAL DIR OC2: Target	Self-reset
NEUTRAL DIR OC2: Events	Disabled

WATTMETRIC GROUND FAULT [GROUP 3]

WATTMETRIC GND FLT 1: Function	Disabled
WATTMETRIC GND FLT 1: Source	Barra (SRC 1)
WATTMETRIC GND FLT 1: Voltage	Calculated VN
WATTMETRIC GND FLT 1: OV Pickup	0.20 pu
WATTMETRIC GND FLT 1: Current	Calculated IN
WATTMETRIC GND FLT 1: OC Pickup	0.060 pu
WATTMETRIC GND FLT 1: OC Pickup Delay	0.20 s
WATTMETRIC GND FLT 1: Power Pickup	0.100 pu
WATTMETRIC GND FLT 1: Ref Power	0.500 pu
WATTMETRIC GND FLT 1: ECA	0 ° Lag
WATTMETRIC GND FLT 1: Power Pickup Delay	0.20 s
WATTMETRIC GND FLT 1: Curve	Definite Time
WATTMETRIC GND FLT 1: Multiplier	1.00 s
WATTMETRIC GND FLT 1: Block	OFF

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DESCRIPTION: (NONE)
TEXT COLOR

WATTMETRIC GROUND FAULT [GROUP 3] (continued from last page)

WATTMETRIC GND FLT 1: Target	Self-reset
WATTMETRIC GND FLT 1: Events	Disabled
WATTMETRIC GND FLT 2: Function	Disabled
WATTMETRIC GND FLT 2: Source	Barra (SRC 1)
WATTMETRIC GND FLT 2: Voltage	Calculated VN
WATTMETRIC GND FLT 2: OV Pickup	0.20 pu
WATTMETRIC GND FLT 2: Current	Calculated IN
WATTMETRIC GND FLT 2: OC Pickup	0.060 pu
WATTMETRIC GND FLT 2: OC Pickup Delay	0.20 s
WATTMETRIC GND FLT 2: Power Pickup	0.100 pu
WATTMETRIC GND FLT 2: Ref Power	0.500 pu
WATTMETRIC GND FLT 2: ECA	0 ° Lag
WATTMETRIC GND FLT 2: Power Pickup Delay	0.20 s
WATTMETRIC GND FLT 2: Curve	Definite Time
WATTMETRIC GND FLT 2: Multiplier	1.00 s
WATTMETRIC GND FLT 2: Block	OFF
WATTMETRIC GND FLT 2: Target	Self-reset
WATTMETRIC GND FLT 2: Events	Disabled

GROUND CURRENT

GROUND TOC [GROUP 3]

GROUND TOC1: Function	Disabled
GROUND TOC1: Source	Barra (SRC 1)
GROUND TOC1: Input	Phasor
GROUND TOC1: Pickup	1.000 pu
GROUND TOC1: Curve	IEEE Mod Inv
GROUND TOC1: TD Multiplier	1.00
GROUND TOC1: Reset	Instantaneous
GROUND TOC1: Block	OFF
GROUND TOC1: Target	Self-reset
GROUND TOC1: Events	Disabled
GROUND TOC2: Function	Disabled
GROUND TOC2: Source	Barra (SRC 1)
GROUND TOC2: Input	Phasor
GROUND TOC2: Pickup	1.000 pu
GROUND TOC2: Curve	IEEE Mod Inv
GROUND TOC2: TD Multiplier	1.00
GROUND TOC2: Reset	Instantaneous
GROUND TOC2: Block	OFF
GROUND TOC2: Target	Self-reset
GROUND TOC2: Events	Disabled

GROUND IOC [GROUP 3]

GROUND IOC1: Function	Disabled
GROUND IOC1: Source	Barra (SRC 1)
GROUND IOC1: Pickup	1.000 pu
GROUND IOC1: Delay	0.00 s
GROUND IOC1: Reset Delay	0.00 s
GROUND IOC1: Block	OFF
GROUND IOC1: Target	Self-reset
GROUND IOC1: Events	Disabled
GROUND IOC2: Function	Disabled
GROUND IOC2: Source	Barra (SRC 1)
GROUND IOC2: Pickup	1.000 pu
GROUND IOC2: Delay	0.00 s
GROUND IOC2: Reset Delay	0.00 s
GROUND IOC2: Block	OFF
GROUND IOC2: Target	Self-reset
GROUND IOC2: Events	Disabled

NEGATIVE SEQUENCE CURRENT

NEGATIVE SEQUENCE TOC [GROUP 3]

NEGATIVE SEQ TOC1: Function	Disabled
NEGATIVE SEQ TOC1: Source	Barra (SRC 1)
NEGATIVE SEQ TOC1: Pickup	1.000 pu

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DESCRIPTION: (NONE)
TEXT COLOR

NEGATIVE SEQUENCE TOC [GROUP 3] (continued from last page)

NEGATIVE SEQ TOC1: Curve	IEEE Mod Inv
NEGATIVE SEQ TOC1: TD Multiplier	1.00
NEGATIVE SEQ TOC1: Reset	Instantaneous
NEGATIVE SEQ TOC1: Block	OFF
NEGATIVE SEQ TOC1: Target	Self-reset
NEGATIVE SEQ TOC1: Events	Disabled
NEGATIVE SEQ TOC2: Function	Disabled
NEGATIVE SEQ TOC2: Source	Barra (SRC 1)
NEGATIVE SEQ TOC2: Pickup	1.000 pu
NEGATIVE SEQ TOC2: Curve	IEEE Mod Inv
NEGATIVE SEQ TOC2: TD Multiplier	1.00
NEGATIVE SEQ TOC2: Reset	Instantaneous
NEGATIVE SEQ TOC2: Block	OFF
NEGATIVE SEQ TOC2: Target	Self-reset
NEGATIVE SEQ TOC2: Events	Disabled

NEGATIVE SEQUENCE IOC [GROUP 3]

NEGATIVE SEQ IOC1: Function	Disabled
NEGATIVE SEQ IOC1: Source	Barra (SRC 1)
NEGATIVE SEQ IOC1: Pickup	1.000 pu
NEGATIVE SEQ IOC1: Delay	0.00 s
NEGATIVE SEQ IOC1: Reset Delay	0.00 s
NEGATIVE SEQ IOC1: Block	OFF
NEGATIVE SEQ IOC1: Target	Self-reset
NEGATIVE SEQ IOC1: Events	Disabled
NEGATIVE SEQ IOC2: Function	Disabled
NEGATIVE SEQ IOC2: Source	Barra (SRC 1)
NEGATIVE SEQ IOC2: Pickup	1.000 pu
NEGATIVE SEQ IOC2: Delay	0.00 s
NEGATIVE SEQ IOC2: Reset Delay	0.00 s
NEGATIVE SEQ IOC2: Block	OFF
NEGATIVE SEQ IOC2: Target	Self-reset
NEGATIVE SEQ IOC2: Events	Disabled

NEGATIVE SEQUENCE DIRECTIONAL OC [GROUP 3]

NEGATIVE SEQ DIR OC1: Function	Disabled
NEGATIVE SEQ DIR OC1: Source	Barra (SRC 1)
NEGATIVE SEQ DIR OC1: Offset	0.00 ohms
NEGATIVE SEQ DIR OC1: Type	Neg Sequence
NEGATIVE SEQ DIR OC1: POS SEQ Restraint	0.063
NEGATIVE SEQ DIR OC1: Forward ECA	75 ° Lag
NEGATIVE SEQ DIR OC1: Forward Limit Angle	90 deg
NEGATIVE SEQ DIR OC1: Forward Pickup	0.050 pu
NEGATIVE SEQ DIR OC1: Reverse Limit Angle	90 deg
NEGATIVE SEQ DIR OC1: Reverse Pickup	0.050 pu
NEGATIVE SEQ DIR OC1: Block	OFF
NEGATIVE SEQ DIR OC1: Target	Self-reset
NEGATIVE SEQ DIR OC1: Events	Disabled
NEGATIVE SEQ DIR OC2: Function	Disabled
NEGATIVE SEQ DIR OC2: Source	Barra (SRC 1)
NEGATIVE SEQ DIR OC2: Offset	0.00 ohms
NEGATIVE SEQ DIR OC2: Type	Neg Sequence
NEGATIVE SEQ DIR OC2: POS SEQ Restraint	0.063
NEGATIVE SEQ DIR OC2: Forward ECA	75 ° Lag
NEGATIVE SEQ DIR OC2: Forward Limit Angle	90 deg
NEGATIVE SEQ DIR OC2: Forward Pickup	0.050 pu
NEGATIVE SEQ DIR OC2: Reverse Limit Angle	90 deg
NEGATIVE SEQ DIR OC2: Reverse Pickup	0.050 pu
NEGATIVE SEQ DIR OC2: Block	OFF
NEGATIVE SEQ DIR OC2: Target	Self-reset
NEGATIVE SEQ DIR OC2: Events	Disabled

BREAKER FAILURE [GROUP 3]

BF1: Function	Disabled
BF1: Mode	3-Pole

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BREAKER FAILURE [GROUP 3] (continued from last page)

BF1: Source	Barra (SRC 1)
BF1: Current Supervision	Yes
BF1: Use Seal-In	Yes
BF1: Three Pole Initiate	OFF
BF1: Block	OFF
BF1: Phase Current Supv Pickup	1.050 pu
BF1: Neutral Current Supv Pickup	1.050 pu
BF1: Use Timer 1	Yes
BF1: Timer 1 Pickup Delay	0.000 s
BF1: Use Timer 2	Yes
BF1: Timer 2 Pickup Delay	0.000 s
BF1: Use Timer 3	Yes
BF1: Timer 3 Pickup Delay	0.000 s
BF1: Breaker Pos1 Phase A/3P	OFF
BF1: Breaker Pos2 Phase A/3P	OFF
BF1: Breaker Test On	OFF
BF1: Phase Current HiSet Pickup	1.050 pu
BF1: Neutral Current HiSet Pickup	1.050 pu
BF1: Phase Current LoSet Pickup	1.050 pu
BF1: Neutral Current LoSet Pickup	1.050 pu
BF1: LoSet Time Delay	0.000 s
BF1: Trip Dropout Delay	0.000 s
BF1: Target	Self-reset
BF1: Events	Disabled
BF1: Phase A Initiate	OFF
BF1: Phase B Initiate	OFF
BF1: Phase C Initiate	OFF
BF1: Breaker Pos1 Phase B	OFF
BF1: Breaker Pos1 Phase C	OFF
BF1: Breaker Pos2 Phase B	OFF
BF1: Breaker Pos2 Phase C	OFF
BF2: Function	Disabled
BF2: Mode	3-Pole
BF2: Source	Barra (SRC 1)
BF2: Current Supervision	Yes
BF2: Use Seal-In	Yes
BF2: Three Pole Initiate	OFF
BF2: Block	OFF
BF2: Phase Current Supv Pickup	1.050 pu
BF2: Neutral Current Supv Pickup	1.050 pu
BF2: Use Timer 1	Yes
BF2: Timer 1 Pickup Delay	0.000 s
BF2: Use Timer 2	Yes
BF2: Timer 2 Pickup Delay	0.000 s
BF2: Use Timer 3	Yes
BF2: Timer 3 Pickup Delay	0.000 s
BF2: Breaker Pos1 Phase A/3P	OFF
BF2: Breaker Pos2 Phase A/3P	OFF
BF2: Breaker Test On	OFF
BF2: Phase Current HiSet Pickup	1.050 pu
BF2: Neutral Current HiSet Pickup	1.050 pu
BF2: Phase Current LoSet Pickup	1.050 pu
BF2: Neutral Current LoSet Pickup	1.050 pu
BF2: LoSet Time Delay	0.000 s
BF2: Trip Dropout Delay	0.000 s
BF2: Target	Self-reset
BF2: Events	Disabled
BF2: Phase A Initiate	OFF
BF2: Phase B Initiate	OFF
BF2: Phase C Initiate	OFF
BF2: Breaker Pos1 Phase B	OFF
BF2: Breaker Pos1 Phase C	OFF
BF2: Breaker Pos2 Phase B	OFF
BF2: Breaker Pos2 Phase C	OFF

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DESCRIPTION: (NONE)
TEXT COLOR

VOLTAGE ELEMENTS

PHASE UV [GROUP 3]

PHASE UV1: Function	Disabled
PHASE UV1: Signal Source	Barra (SRC 1)
PHASE UV1: Mode	Phase to Ground
PHASE UV1: Pickup	1.000 pu
PHASE UV1: Curve	Definite Time
PHASE UV1: Delay	1.00 s
PHASE UV1: Minimum Voltage	0.100 pu
PHASE UV1: Block	OFF
PHASE UV1: Target	Self-reset
PHASE UV1: Events	Disabled
PHASE UV2: Function	Disabled
PHASE UV2: Signal Source	Barra (SRC 1)
PHASE UV2: Mode	Phase to Ground
PHASE UV2: Pickup	1.000 pu
PHASE UV2: Curve	Definite Time
PHASE UV2: Delay	1.00 s
PHASE UV2: Minimum Voltage	0.100 pu
PHASE UV2: Block	OFF
PHASE UV2: Target	Self-reset
PHASE UV2: Events	Disabled
PHASE UV3: Function	Disabled
PHASE UV3: Signal Source	Barra (SRC 1)
PHASE UV3: Mode	Phase to Ground
PHASE UV3: Pickup	1.000 pu
PHASE UV3: Curve	Definite Time
PHASE UV3: Delay	1.00 s
PHASE UV3: Minimum Voltage	0.100 pu
PHASE UV3: Block	OFF
PHASE UV3: Target	Self-reset
PHASE UV3: Events	Disabled

PHASE OV [GROUP 3]

PHASE OV1: Function	Disabled
PHASE OV1: Source	Barra (SRC 1)
PHASE OV1: Pickup	1.000 pu
PHASE OV1: Delay	1.00 s
PHASE OV1: Reset Delay	1.00 s
PHASE OV1: Block	OFF
PHASE OV1: Target	Self-reset
PHASE OV1: Events	Disabled

NEUTRAL OV [GROUP 3]

NEUTRAL OV 1: Function	Disabled
NEUTRAL OV 1: Source	Barra (SRC 1)
NEUTRAL OV 1: Pickup	0.300 pu
NEUTRAL OV 1: Curve	Definite Time
NEUTRAL OV 1: Pickup Delay	1.00 s
NEUTRAL OV 1: Reset Delay	1.00 s
NEUTRAL OV 1: Block	OFF
NEUTRAL OV 1: Target	Self-reset
NEUTRAL OV 1: Events	Disabled
NEUTRAL OV 2: Function	Disabled
NEUTRAL OV 2: Source	Barra (SRC 1)
NEUTRAL OV 2: Pickup	0.300 pu
NEUTRAL OV 2: Curve	Definite Time
NEUTRAL OV 2: Pickup Delay	1.00 s
NEUTRAL OV 2: Reset Delay	1.00 s
NEUTRAL OV 2: Block	OFF
NEUTRAL OV 2: Target	Self-reset
NEUTRAL OV 2: Events	Disabled
NEUTRAL OV 3: Function	Disabled
NEUTRAL OV 3: Source	Barra (SRC 1)
NEUTRAL OV 3: Pickup	0.300 pu
NEUTRAL OV 3: Curve	Definite Time

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DESCRIPTION: (NONE)
TEXT COLOR

NEUTRAL OV [GROUP 3] (continued from last page)

NEUTRAL OV 3: Pickup Delay	1.00 s
NEUTRAL OV 3: Reset Delay	1.00 s
NEUTRAL OV 3: Block	OFF
NEUTRAL OV 3: Target	Self-reset
NEUTRAL OV 3: Events	Disabled

NEGATIVE SEQUENCE OV [GROUP 3]

NEG SEQ OV1: Function	Disabled
NEG SEQ OV1: Source	Barra (SRC 1)
NEG SEQ OV1: Pickup	0.300 pu
NEG SEQ OV1: Pickup Delay	0.50 s
NEG SEQ OV1: Reset Delay	0.50 s
NEG SEQ OV1: Block	OFF
NEG SEQ OV1: Target	Self-reset
NEG SEQ OV1: Events	Disabled
NEG SEQ OV2: Function	Disabled
NEG SEQ OV2: Source	Barra (SRC 1)
NEG SEQ OV2: Pickup	0.300 pu
NEG SEQ OV2: Pickup Delay	0.50 s
NEG SEQ OV2: Reset Delay	0.50 s
NEG SEQ OV2: Block	OFF
NEG SEQ OV2: Target	Self-reset
NEG SEQ OV2: Events	Disabled
NEG SEQ OV3: Function	Disabled
NEG SEQ OV3: Source	Barra (SRC 1)
NEG SEQ OV3: Pickup	0.300 pu
NEG SEQ OV3: Pickup Delay	0.50 s
NEG SEQ OV3: Reset Delay	0.50 s
NEG SEQ OV3: Block	OFF
NEG SEQ OV3: Target	Self-reset
NEG SEQ OV3: Events	Disabled

AUXILIARY UV [GROUP 3]

AUXILIARY UV 1: Function	Disabled
AUXILIARY UV 1: Source	Barra (SRC 1)
AUXILIARY UV 1: Pickup	0.700 pu
AUXILIARY UV 1: Curve	Definite Time
AUXILIARY UV 1: Delay	1.00 s
AUXILIARY UV 1: Minimum Voltage	0.100 pu
AUXILIARY UV 1: Block	OFF
AUXILIARY UV 1: Target	Self-reset
AUXILIARY UV 1: Events	Disabled

AUXILIARY OV [GROUP 3]

AUXILIARY OV 1: Function	Disabled
AUXILIARY OV 1: Source	Barra (SRC 1)
AUXILIARY OV 1: Pickup	0.300 pu
AUXILIARY OV 1: Pickup Delay	1.00 s
AUXILIARY OV 1: Reset Delay	1.00 s
AUXILIARY OV 1: Block	OFF
AUXILIARY OV 1: Target	Self-reset
AUXILIARY OV 1: Events	Disabled

COMPENSATED OVERVOLTAGE [GROUP 3]

Compensated OV Function	Disabled
Compensated OV Source	Barra (SRC 1)
Compensated OV Zc Mag	2.00 ohm
Compensated OV Zc Ang	90 deg
Compensated OV I_1max	0.20 pu
Compensated OV STG1 PKP	1.300 pu
Compensated OV STG1 Delay	1.00 sec
Compensated OV STG2 PKP	1.300 pu
Compensated OV STG2 Delay	1.00 sec
Compensated OV STG3 PKP	1.300 pu
Compensated OV STG3 Delay	1.00 sec

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DESCRIPTION: (NONE)
TEXT COLOR

COMPENSATED OVERVOLTAGE [GROUP 3] (continued from last page)

Compensated OV Block	OFF
Compensated OV Target	Self-reset
Compensated OV Events	Disabled

POWER

SENSITIVE DIRECTIONAL POWER [GROUP 3]

SENS DIR POWER1: Function	Disabled
SENS DIR POWER1: Signal Source	Barra (SRC 1)
SENS DIR POWER1: Sensitive Directional Power RCA	0 deg
SENS DIR POWER1: Sensitive Directional Power Calibration	0.00 deg
SENS DIR POWER1: Stage 1 SMIN	0.100 pu
SENS DIR POWER1: Stage 1 Delay	0.50 s
SENS DIR POWER1: Stage 2 SMIN	0.100 pu
SENS DIR POWER1: Stage 2 Delay	20.00 s
SENS DIR POWER1: Block	OFF
SENS DIR POWER1: Target	Self-reset
SENS DIR POWER1: Events	Disabled
SENS DIR POWER2: Function	Disabled
SENS DIR POWER2: Signal Source	Barra (SRC 1)
SENS DIR POWER2: Sensitive Directional Power RCA	0 deg
SENS DIR POWER2: Sensitive Directional Power Calibration	0.00 deg
SENS DIR POWER2: Stage 1 SMIN	0.100 pu
SENS DIR POWER2: Stage 1 Delay	0.50 s
SENS DIR POWER2: Stage 2 SMIN	0.100 pu
SENS DIR POWER2: Stage 2 Delay	20.00 s
SENS DIR POWER2: Block	OFF
SENS DIR POWER2: Target	Self-reset
SENS DIR POWER2: Events	Disabled

GROUP 4

LINE PICKUP [GROUP 4]

Function	Disabled
Signal Source	Barra (SRC 1)
Phase IOC Line Pickup	1.000 pu
UV Pickup	0.700 pu
Line End Open Pickup Delay	0.150 s
Line End Open Reset Delay	0.090 s
OV Pickup Delay	0.040 s
Autoreclose Coordination Bypass	Enabled
Autoreclose Coordination Pickup Delay	0.045 s
Autoreclose Coordination Reset Delay	0.005 s
Terminal Open	OFF
AR Accelerate	OFF
Distance Trip	Enabled
Block	OFF
Target	Self-reset
Events	Disabled

DISTANCE

DISTANCE [GROUP 4]

Source	Barra (SRC 1)
Memory Duration	10 cycles
Force Self-Polar	OFF
Force Mem-Polar	OFF

PHASE DISTANCE [GROUP 4]

PHASE DISTANCE Z1: Function	Disabled
PHASE DISTANCE Z1: Direction	Forward
PHASE DISTANCE Z1: Shape	Mho
PHASE DISTANCE Z1: Xfmr Vol Connection	None
PHASE DISTANCE Z1: Xfmr Curr Connection	None
PHASE DISTANCE Z1: Reach	2.00 ohms
PHASE DISTANCE Z1: RCA	85 deg
PHASE DISTANCE Z1: Rev Reach	2.00 ohms
PHASE DISTANCE Z1: Rev Reach RCA	85 deg

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PHASE DISTANCE [GROUP 4] (continued from last page)

PHASE DISTANCE Z1: Comp Limit	90 deg
PHASE DISTANCE Z1: DIR RCA	85 deg
PHASE DISTANCE Z1: DIR Comp Limit	90 deg
PHASE DISTANCE Z1: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z1: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z1: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z1: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z1: Supervision	0.200 pu
PHASE DISTANCE Z1: Volt Level	0.000 pu
PHASE DISTANCE Z1: Delay	0.000 s
PHASE DISTANCE Z1: Block	OFF
PHASE DISTANCE Z1: Target	Self-reset
PHASE DISTANCE Z1: Events	Disabled
PHASE DISTANCE Z2: Function	Disabled
PHASE DISTANCE Z2: Direction	Forward
PHASE DISTANCE Z2: Shape	Mho
PHASE DISTANCE Z2: Xfmr Vol Connection	None
PHASE DISTANCE Z2: Xfmr Curr Connection	None
PHASE DISTANCE Z2: Reach	2.00 ohms
PHASE DISTANCE Z2: RCA	85 deg
PHASE DISTANCE Z2: Rev Reach	2.00 ohms
PHASE DISTANCE Z2: Rev Reach RCA	85 deg
PHASE DISTANCE Z2: Comp Limit	90 deg
PHASE DISTANCE Z2: DIR RCA	85 deg
PHASE DISTANCE Z2: DIR Comp Limit	90 deg
PHASE DISTANCE Z2: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z2: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z2: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z2: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z2: Supervision	0.200 pu
PHASE DISTANCE Z2: Volt Level	0.000 pu
PHASE DISTANCE Z2: Delay	0.000 s
PHASE DISTANCE Z2: Block	OFF
PHASE DISTANCE Z2: Target	Self-reset
PHASE DISTANCE Z2: Events	Disabled
PHASE DISTANCE Z3: Function	Disabled
PHASE DISTANCE Z3: Direction	Forward
PHASE DISTANCE Z3: Shape	Mho
PHASE DISTANCE Z3: Xfmr Vol Connection	None
PHASE DISTANCE Z3: Xfmr Curr Connection	None
PHASE DISTANCE Z3: Reach	2.00 ohms
PHASE DISTANCE Z3: RCA	85 deg
PHASE DISTANCE Z3: Rev Reach	2.00 ohms
PHASE DISTANCE Z3: Rev Reach RCA	85 deg
PHASE DISTANCE Z3: Comp Limit	90 deg
PHASE DISTANCE Z3: DIR RCA	85 deg
PHASE DISTANCE Z3: DIR Comp Limit	90 deg
PHASE DISTANCE Z3: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z3: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z3: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z3: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z3: Supervision	0.200 pu
PHASE DISTANCE Z3: Volt Level	0.000 pu
PHASE DISTANCE Z3: Delay	0.000 s
PHASE DISTANCE Z3: Block	OFF
PHASE DISTANCE Z3: Target	Self-reset
PHASE DISTANCE Z3: Events	Disabled
PHASE DISTANCE Z4: Function	Disabled
PHASE DISTANCE Z4: Direction	Forward
PHASE DISTANCE Z4: Shape	Mho
PHASE DISTANCE Z4: Xfmr Vol Connection	None
PHASE DISTANCE Z4: Xfmr Curr Connection	None
PHASE DISTANCE Z4: Reach	2.00 ohms
PHASE DISTANCE Z4: RCA	85 deg
PHASE DISTANCE Z4: Rev Reach	2.00 ohms

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

PHASE DISTANCE [GROUP 4] (continued from last page)

PHASE DISTANCE Z4: Rev Reach RCA	85 deg
PHASE DISTANCE Z4: Comp Limit	90 deg
PHASE DISTANCE Z4: DIR RCA	85 deg
PHASE DISTANCE Z4: DIR Comp Limit	90 deg
PHASE DISTANCE Z4: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z4: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z4: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z4: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z4: Supervision	0.200 pu
PHASE DISTANCE Z4: Volt Level	0.000 pu
PHASE DISTANCE Z4: Delay	0.000 s
PHASE DISTANCE Z4: Block	OFF
PHASE DISTANCE Z4: Target	Self-reset
PHASE DISTANCE Z4: Events	Disabled
PHASE DISTANCE Z5: Function	Disabled
PHASE DISTANCE Z5: Direction	Forward
PHASE DISTANCE Z5: Shape	Mho
PHASE DISTANCE Z5: Xfmr Vol Connection	None
PHASE DISTANCE Z5: Xfmr Curr Connection	None
PHASE DISTANCE Z5: Reach	2.00 ohms
PHASE DISTANCE Z5: RCA	85 deg
PHASE DISTANCE Z5: Rev Reach	2.00 ohms
PHASE DISTANCE Z5: Rev Reach RCA	85 deg
PHASE DISTANCE Z5: Comp Limit	90 deg
PHASE DISTANCE Z5: DIR RCA	85 deg
PHASE DISTANCE Z5: DIR Comp Limit	90 deg
PHASE DISTANCE Z5: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z5: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z5: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z5: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z5: Supervision	0.200 pu
PHASE DISTANCE Z5: Volt Level	0.000 pu
PHASE DISTANCE Z5: Delay	0.000 s
PHASE DISTANCE Z5: Block	OFF
PHASE DISTANCE Z5: Target	Self-reset
PHASE DISTANCE Z5: Events	Disabled

GROUND DISTANCE [GROUP 4]

GROUND DISTANCE Z1: Function	Disabled
GROUND DISTANCE Z1: Direction	Forward
GROUND DISTANCE Z1: Shape	Mho
GROUND DISTANCE Z1: Z0/Z1 Mag	2.70
GROUND DISTANCE Z1: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z1: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z1: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z1: Reach	2.00 ohms
GROUND DISTANCE Z1: RCA	85 deg
GROUND DISTANCE Z1: Rev Reach	2.00 ohms
GROUND DISTANCE Z1: Rev Reach RCA	85 deg
GROUND DISTANCE Z1: POL Current	Zero-seq
GROUND DISTANCE Z1: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z1: Comp Limit	90 deg
GROUND DISTANCE Z1: DIR RCA	85 deg
GROUND DISTANCE Z1: DIR Comp Limit	90 deg
GROUND DISTANCE Z1: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z1: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z1: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z1: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z1: Supervision	0.200 pu
GROUND DISTANCE Z1: Volt Level	0.000 pu
GROUND DISTANCE Z1: Delay	0.000 s
GROUND DISTANCE Z1: Block	OFF
GROUND DISTANCE Z1: Target	Self-reset
GROUND DISTANCE Z1: Events	Disabled
GROUND DISTANCE Z2: Function	Disabled

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

GROUND DISTANCE [GROUP 4] (continued from last page)

GROUND DISTANCE Z2: Direction	Forward
GROUND DISTANCE Z2: Shape	Mho
GROUND DISTANCE Z2: Z0/Z1 Mag	2.70
GROUND DISTANCE Z2: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z2: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z2: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z2: Reach	2.00 ohms
GROUND DISTANCE Z2: RCA	85 deg
GROUND DISTANCE Z2: Rev Reach	2.00 ohms
GROUND DISTANCE Z2: Rev Reach RCA	85 deg
GROUND DISTANCE Z2: POL Current	Zero-seq
GROUND DISTANCE Z2: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z2: Comp Limit	90 deg
GROUND DISTANCE Z2: DIR RCA	85 deg
GROUND DISTANCE Z2: DIR Comp Limit	90 deg
GROUND DISTANCE Z2: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z2: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z2: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z2: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z2: Supervision	0.200 pu
GROUND DISTANCE Z2: Volt Level	0.000 pu
GROUND DISTANCE Z2: Delay	0.000 s
GROUND DISTANCE Z2: Block	OFF
GROUND DISTANCE Z2: Target	Self-reset
GROUND DISTANCE Z2: Events	Disabled
GROUND DISTANCE Z3: Function	Disabled
GROUND DISTANCE Z3: Direction	Forward
GROUND DISTANCE Z3: Shape	Mho
GROUND DISTANCE Z3: Z0/Z1 Mag	2.70
GROUND DISTANCE Z3: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z3: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z3: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z3: Reach	2.00 ohms
GROUND DISTANCE Z3: RCA	85 deg
GROUND DISTANCE Z3: Rev Reach	2.00 ohms
GROUND DISTANCE Z3: Rev Reach RCA	85 deg
GROUND DISTANCE Z3: POL Current	Zero-seq
GROUND DISTANCE Z3: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z3: Comp Limit	90 deg
GROUND DISTANCE Z3: DIR RCA	85 deg
GROUND DISTANCE Z3: DIR Comp Limit	90 deg
GROUND DISTANCE Z3: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z3: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z3: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z3: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z3: Supervision	0.200 pu
GROUND DISTANCE Z3: Volt Level	0.000 pu
GROUND DISTANCE Z3: Delay	0.000 s
GROUND DISTANCE Z3: Block	OFF
GROUND DISTANCE Z3: Target	Self-reset
GROUND DISTANCE Z3: Events	Disabled
GROUND DISTANCE Z4: Function	Disabled
GROUND DISTANCE Z4: Direction	Forward
GROUND DISTANCE Z4: Shape	Mho
GROUND DISTANCE Z4: Z0/Z1 Mag	2.70
GROUND DISTANCE Z4: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z4: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z4: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z4: Reach	2.00 ohms
GROUND DISTANCE Z4: RCA	85 deg
GROUND DISTANCE Z4: Rev Reach	2.00 ohms
GROUND DISTANCE Z4: Rev Reach RCA	85 deg
GROUND DISTANCE Z4: POL Current	Zero-seq
GROUND DISTANCE Z4: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z4: Comp Limit	90 deg

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

GROUND DISTANCE [GROUP 4] (continued from last page)

GROUND DISTANCE Z4: DIR RCA	85 deg
GROUND DISTANCE Z4: DIR Comp Limit	90 deg
GROUND DISTANCE Z4: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z4: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z4: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z4: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z4: Supervision	0.200 pu
GROUND DISTANCE Z4: Volt Level	0.000 pu
GROUND DISTANCE Z4: Delay	0.000 s
GROUND DISTANCE Z4: Block	OFF
GROUND DISTANCE Z4: Target	Self-reset
GROUND DISTANCE Z4: Events	Disabled
GROUND DISTANCE Z5: Function	Disabled
GROUND DISTANCE Z5: Direction	Forward
GROUND DISTANCE Z5: Shape	Mho
GROUND DISTANCE Z5: Z0/Z1 Mag	2.70
GROUND DISTANCE Z5: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z5: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z5: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z5: Reach	2.00 ohms
GROUND DISTANCE Z5: RCA	85 deg
GROUND DISTANCE Z5: Rev Reach	2.00 ohms
GROUND DISTANCE Z5: Rev Reach RCA	85 deg
GROUND DISTANCE Z5: POL Current	Zero-seq
GROUND DISTANCE Z5: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z5: Comp Limit	90 deg
GROUND DISTANCE Z5: DIR RCA	85 deg
GROUND DISTANCE Z5: DIR Comp Limit	90 deg
GROUND DISTANCE Z5: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z5: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z5: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z5: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z5: Supervision	0.200 pu
GROUND DISTANCE Z5: Volt Level	0.000 pu
GROUND DISTANCE Z5: Delay	0.000 s
GROUND DISTANCE Z5: Block	OFF
GROUND DISTANCE Z5: Target	Self-reset
GROUND DISTANCE Z5: Events	Disabled

POWER SWING DETECT [GROUP 4]

Function	Disabled
Source	Barra (SRC 1)
Shape	Mho Shape
Mode	Two Step
Supv	0.600 pu
Fwd Reach	50.00 ohms
Quad Fwd Mid	60.00 ohms
Quad Fwd Out	70.00 ohms
Fwd Rca	75 deg
Rev Reach	50.00 ohms
Quad Rev Mid	60.00 ohms
Quad Rev Out	70.00 ohms
Rev Rca	75 deg
Outer Limit Angle	120 deg
Middle Limit Angle	90 deg
Inner Limit Angle	60 deg
Outer Rgt Bld	100.00 ohms
Outer Lft Bld	100.00 ohms
Midle Rgt Bld	100.00 ohms
Midle Lft Bld	100.00 ohms
Inner Rgt Bld	100.00 ohms
Inner Lft Bld	100.00 ohms
Delay 1 Pickup	0.030 s
Delay 1 Reset	0.050 s
Delay 2 Pickup	0.017 s

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

POWER SWING DETECT [GROUP 4] (continued from last page)

Delay 3 Pickup	0.009 s
Delay 4 Pickup	0.017 s
Seal-In Delay	0.400 s
Trip Mode	Delayed
Block	OFF
Target	Self-reset
Event	Disabled

LOAD ENCROACHMENT [GROUP 4]

Function	Disabled
Source	Barra (SRC 1)
Min Volt	0.250 pu
Reach	1.00 ohms
Angle	30 deg
Pickup Delay	0.000 s
Reset Delay	0.000 s
Block	OFF
Target	Self-reset
Events	Disabled

PHASE CURRENT

PHASE TOC [GROUP 4]

PHASE TOC1: Function	Disabled
PHASE TOC1: Signal Source	Barra (SRC 1)
PHASE TOC1: Input	Phasor
PHASE TOC1: Pickup	1.000 pu
PHASE TOC1: Curve	IEEE Mod Inv
PHASE TOC1: TD Multiplier	1.00
PHASE TOC1: Reset	Instantaneous
PHASE TOC1: Voltage Restraint	Disabled
PHASE TOC1: Block A	OFF
PHASE TOC1: Block B	OFF
PHASE TOC1: Block C	OFF
PHASE TOC1: Target	Self-reset
PHASE TOC1: Events	Disabled
PHASE TOC2: Function	Disabled
PHASE TOC2: Signal Source	Barra (SRC 1)
PHASE TOC2: Input	Phasor
PHASE TOC2: Pickup	1.000 pu
PHASE TOC2: Curve	IEEE Mod Inv
PHASE TOC2: TD Multiplier	1.00
PHASE TOC2: Reset	Instantaneous
PHASE TOC2: Voltage Restraint	Disabled
PHASE TOC2: Block A	OFF
PHASE TOC2: Block B	OFF
PHASE TOC2: Block C	OFF
PHASE TOC2: Target	Self-reset
PHASE TOC2: Events	Disabled

PHASE IOC [GROUP 4]

PHASE IOC1: Function	Disabled
PHASE IOC1: Source	Barra (SRC 1)
PHASE IOC1: Pickup	1.000 pu
PHASE IOC1: Delay	0.00 s
PHASE IOC1: Reset Delay	0.00 s
PHASE IOC1: Block A	OFF
PHASE IOC1: Block B	OFF
PHASE IOC1: Block C	OFF
PHASE IOC1: Target	Self-reset
PHASE IOC1: Events	Disabled
PHASE IOC2: Function	Disabled
PHASE IOC2: Source	Barra (SRC 1)
PHASE IOC2: Pickup	1.000 pu
PHASE IOC2: Delay	0.00 s
PHASE IOC2: Reset Delay	0.00 s

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

PHASE IOC [GROUP 4] (continued from last page)

PHASE IOC2: Block A	OFF
PHASE IOC2: Block B	OFF
PHASE IOC2: Block C	OFF
PHASE IOC2: Target	Self-reset
PHASE IOC2: Events	Disabled

PHASE DIRECTIONAL [GROUP 4]

PHASE DIR1: Function	Disabled
PHASE DIR1: Source	Barra (SRC 1)
PHASE DIR1: Block	OFF
PHASE DIR1: ECA	30 deg
PHASE DIR1: Pol V Threshold	0.700 pu
PHASE DIR1: Block when V Mem Exp	No
PHASE DIR1: Target	Self-reset
PHASE DIR1: Events	Disabled
PHASE DIR2: Function	Disabled
PHASE DIR2: Source	Barra (SRC 1)
PHASE DIR2: Block	OFF
PHASE DIR2: ECA	30 deg
PHASE DIR2: Pol V Threshold	0.700 pu
PHASE DIR2: Block when V Mem Exp	No
PHASE DIR2: Target	Self-reset
PHASE DIR2: Events	Disabled

NEUTRAL CURRENT

NEUTRAL TOC [GROUP 4]

NEUTRAL TOC1: Function	Disabled
NEUTRAL TOC1: Source	Barra (SRC 1)
NEUTRAL TOC1: Input	Phasor
NEUTRAL TOC1: Pickup	1.000 pu
NEUTRAL TOC1: Curve	IEEE Mod Inv
NEUTRAL TOC1: TD Multiplier	1.00
NEUTRAL TOC1: Reset	Instantaneous
NEUTRAL TOC1: Block	OFF
NEUTRAL TOC1: Target	Self-reset
NEUTRAL TOC1: Events	Disabled
NEUTRAL TOC2: Function	Disabled
NEUTRAL TOC2: Source	Barra (SRC 1)
NEUTRAL TOC2: Input	Phasor
NEUTRAL TOC2: Pickup	1.000 pu
NEUTRAL TOC2: Curve	IEEE Mod Inv
NEUTRAL TOC2: TD Multiplier	1.00
NEUTRAL TOC2: Reset	Instantaneous
NEUTRAL TOC2: Block	OFF
NEUTRAL TOC2: Target	Self-reset
NEUTRAL TOC2: Events	Disabled

NEUTRAL IOC [GROUP 4]

NEUTRAL IOC1: Function	Disabled
NEUTRAL IOC1: Source	Barra (SRC 1)
NEUTRAL IOC1: Pickup	1.000 pu
NEUTRAL IOC1: Delay	0.00 s
NEUTRAL IOC1: Reset Delay	0.00 s
NEUTRAL IOC1: Block	OFF
NEUTRAL IOC1: Target	Self-reset
NEUTRAL IOC1: Events	Disabled
NEUTRAL IOC2: Function	Disabled
NEUTRAL IOC2: Source	Barra (SRC 1)
NEUTRAL IOC2: Pickup	1.000 pu
NEUTRAL IOC2: Delay	0.00 s
NEUTRAL IOC2: Reset Delay	0.00 s
NEUTRAL IOC2: Block	OFF
NEUTRAL IOC2: Target	Self-reset
NEUTRAL IOC2: Events	Disabled

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

NEUTRAL DIRECTIONAL OC [GROUP 4]

NEUTRAL DIR OC1: Function	Disabled
NEUTRAL DIR OC1: Source	Barra (SRC 1)
NEUTRAL DIR OC1: Polarizing	Voltage
NEUTRAL DIR OC1: Polarizing Volt	Calculated V0
NEUTRAL DIR OC1: Op Current	Calculated 3I0
NEUTRAL DIR OC1: POS SEQ Restraint	0.063
NEUTRAL DIR OC1: Offset	0.00 ohms
NEUTRAL DIR OC1: Forward ECA	75 ° Lag
NEUTRAL DIR OC1: Forward Limit Angle	90 deg
NEUTRAL DIR OC1: Forward Pickup	0.050 pu
NEUTRAL DIR OC1: Reverse Limit Angle	90 deg
NEUTRAL DIR OC1: Reverse Pickup	0.050 pu
NEUTRAL DIR OC1: Block	OFF
NEUTRAL DIR OC1: Target	Self-reset
NEUTRAL DIR OC1: Events	Disabled
NEUTRAL DIR OC2: Function	Disabled
NEUTRAL DIR OC2: Source	Barra (SRC 1)
NEUTRAL DIR OC2: Polarizing	Voltage
NEUTRAL DIR OC2: Polarizing Volt	Calculated V0
NEUTRAL DIR OC2: Op Current	Calculated 3I0
NEUTRAL DIR OC2: POS SEQ Restraint	0.063
NEUTRAL DIR OC2: Offset	0.00 ohms
NEUTRAL DIR OC2: Forward ECA	75 ° Lag
NEUTRAL DIR OC2: Forward Limit Angle	90 deg
NEUTRAL DIR OC2: Forward Pickup	0.050 pu
NEUTRAL DIR OC2: Reverse Limit Angle	90 deg
NEUTRAL DIR OC2: Reverse Pickup	0.050 pu
NEUTRAL DIR OC2: Block	OFF
NEUTRAL DIR OC2: Target	Self-reset
NEUTRAL DIR OC2: Events	Disabled

WATTMETRIC GROUND FAULT [GROUP 4]

WATTMETRIC GND FLT 1: Function	Disabled
WATTMETRIC GND FLT 1: Source	Barra (SRC 1)
WATTMETRIC GND FLT 1: Voltage	Calculated VN
WATTMETRIC GND FLT 1: OV Pickup	0.20 pu
WATTMETRIC GND FLT 1: Current	Calculated IN
WATTMETRIC GND FLT 1: OC Pickup	0.060 pu
WATTMETRIC GND FLT 1: OC Pickup Delay	0.20 s
WATTMETRIC GND FLT 1: Power Pickup	0.100 pu
WATTMETRIC GND FLT 1: Ref Power	0.500 pu
WATTMETRIC GND FLT 1: ECA	0 ° Lag
WATTMETRIC GND FLT 1: Power Pickup Delay	0.20 s
WATTMETRIC GND FLT 1: Curve	Definite Time
WATTMETRIC GND FLT 1: Multiplier	1.00 s
WATTMETRIC GND FLT 1: Block	OFF
WATTMETRIC GND FLT 1: Target	Self-reset
WATTMETRIC GND FLT 1: Events	Disabled
WATTMETRIC GND FLT 2: Function	Disabled
WATTMETRIC GND FLT 2: Source	Barra (SRC 1)
WATTMETRIC GND FLT 2: Voltage	Calculated VN
WATTMETRIC GND FLT 2: OV Pickup	0.20 pu
WATTMETRIC GND FLT 2: Current	Calculated IN
WATTMETRIC GND FLT 2: OC Pickup	0.060 pu
WATTMETRIC GND FLT 2: OC Pickup Delay	0.20 s
WATTMETRIC GND FLT 2: Power Pickup	0.100 pu
WATTMETRIC GND FLT 2: Ref Power	0.500 pu
WATTMETRIC GND FLT 2: ECA	0 ° Lag
WATTMETRIC GND FLT 2: Power Pickup Delay	0.20 s
WATTMETRIC GND FLT 2: Curve	Definite Time
WATTMETRIC GND FLT 2: Multiplier	1.00 s
WATTMETRIC GND FLT 2: Block	OFF
WATTMETRIC GND FLT 2: Target	Self-reset
WATTMETRIC GND FLT 2: Events	Disabled

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
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VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

GROUND CURRENT

GROUND TOC [GROUP 4]

GROUND TOC1: Function	Disabled
GROUND TOC1: Source	Barra (SRC 1)
GROUND TOC1: Input	Phasor
GROUND TOC1: Pickup	1.000 pu
GROUND TOC1: Curve	IEEE Mod Inv
GROUND TOC1: TD Multiplier	1.00
GROUND TOC1: Reset	Instantaneous
GROUND TOC1: Block	OFF
GROUND TOC1: Target	Self-reset
GROUND TOC1: Events	Disabled
GROUND TOC2: Function	Disabled
GROUND TOC2: Source	Barra (SRC 1)
GROUND TOC2: Input	Phasor
GROUND TOC2: Pickup	1.000 pu
GROUND TOC2: Curve	IEEE Mod Inv
GROUND TOC2: TD Multiplier	1.00
GROUND TOC2: Reset	Instantaneous
GROUND TOC2: Block	OFF
GROUND TOC2: Target	Self-reset
GROUND TOC2: Events	Disabled

GROUND IOC [GROUP 4]

GROUND IOC1: Function	Disabled
GROUND IOC1: Source	Barra (SRC 1)
GROUND IOC1: Pickup	1.000 pu
GROUND IOC1: Delay	0.00 s
GROUND IOC1: Reset Delay	0.00 s
GROUND IOC1: Block	OFF
GROUND IOC1: Target	Self-reset
GROUND IOC1: Events	Disabled
GROUND IOC2: Function	Disabled
GROUND IOC2: Source	Barra (SRC 1)
GROUND IOC2: Pickup	1.000 pu
GROUND IOC2: Delay	0.00 s
GROUND IOC2: Reset Delay	0.00 s
GROUND IOC2: Block	OFF
GROUND IOC2: Target	Self-reset
GROUND IOC2: Events	Disabled

NEGATIVE SEQUENCE CURRENT

NEGATIVE SEQUENCE TOC [GROUP 4]

NEGATIVE SEQ TOC1: Function	Disabled
NEGATIVE SEQ TOC1: Source	Barra (SRC 1)
NEGATIVE SEQ TOC1: Pickup	1.000 pu
NEGATIVE SEQ TOC1: Curve	IEEE Mod Inv
NEGATIVE SEQ TOC1: TD Multiplier	1.00
NEGATIVE SEQ TOC1: Reset	Instantaneous
NEGATIVE SEQ TOC1: Block	OFF
NEGATIVE SEQ TOC1: Target	Self-reset
NEGATIVE SEQ TOC1: Events	Disabled
NEGATIVE SEQ TOC2: Function	Disabled
NEGATIVE SEQ TOC2: Source	Barra (SRC 1)
NEGATIVE SEQ TOC2: Pickup	1.000 pu
NEGATIVE SEQ TOC2: Curve	IEEE Mod Inv
NEGATIVE SEQ TOC2: TD Multiplier	1.00
NEGATIVE SEQ TOC2: Reset	Instantaneous
NEGATIVE SEQ TOC2: Block	OFF
NEGATIVE SEQ TOC2: Target	Self-reset
NEGATIVE SEQ TOC2: Events	Disabled

NEGATIVE SEQUENCE IOC [GROUP 4]

NEGATIVE SEQ IOC1: Function	Disabled
NEGATIVE SEQ IOC1: Source	Barra (SRC 1)
NEGATIVE SEQ IOC1: Pickup	1.000 pu

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S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
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VERSION: 6.0X
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SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

NEGATIVE SEQUENCE IOC [GROUP 4] (continued from last page)

NEGATIVE SEQ IOC1: Delay	0.00 s
NEGATIVE SEQ IOC1: Reset Delay	0.00 s
NEGATIVE SEQ IOC1: Block	OFF
NEGATIVE SEQ IOC1: Target	Self-reset
NEGATIVE SEQ IOC1: Events	Disabled
NEGATIVE SEQ IOC2: Function	Disabled
NEGATIVE SEQ IOC2: Source	Barra (SRC 1)
NEGATIVE SEQ IOC2: Pickup	1.000 pu
NEGATIVE SEQ IOC2: Delay	0.00 s
NEGATIVE SEQ IOC2: Reset Delay	0.00 s
NEGATIVE SEQ IOC2: Block	OFF
NEGATIVE SEQ IOC2: Target	Self-reset
NEGATIVE SEQ IOC2: Events	Disabled

NEGATIVE SEQUENCE DIRECTIONAL OC [GROUP 4]

NEGATIVE SEQ DIR OC1: Function	Disabled
NEGATIVE SEQ DIR OC1: Source	Barra (SRC 1)
NEGATIVE SEQ DIR OC1: Offset	0.00 ohms
NEGATIVE SEQ DIR OC1: Type	Neg Sequence
NEGATIVE SEQ DIR OC1: POS SEQ Restraint	0.063
NEGATIVE SEQ DIR OC1: Forward ECA	75 ° Lag
NEGATIVE SEQ DIR OC1: Forward Limit Angle	90 deg
NEGATIVE SEQ DIR OC1: Forward Pickup	0.050 pu
NEGATIVE SEQ DIR OC1: Reverse Limit Angle	90 deg
NEGATIVE SEQ DIR OC1: Reverse Pickup	0.050 pu
NEGATIVE SEQ DIR OC1: Block	OFF
NEGATIVE SEQ DIR OC1: Target	Self-reset
NEGATIVE SEQ DIR OC1: Events	Disabled
NEGATIVE SEQ DIR OC2: Function	Disabled
NEGATIVE SEQ DIR OC2: Source	Barra (SRC 1)
NEGATIVE SEQ DIR OC2: Offset	0.00 ohms
NEGATIVE SEQ DIR OC2: Type	Neg Sequence
NEGATIVE SEQ DIR OC2: POS SEQ Restraint	0.063
NEGATIVE SEQ DIR OC2: Forward ECA	75 ° Lag
NEGATIVE SEQ DIR OC2: Forward Limit Angle	90 deg
NEGATIVE SEQ DIR OC2: Forward Pickup	0.050 pu
NEGATIVE SEQ DIR OC2: Reverse Limit Angle	90 deg
NEGATIVE SEQ DIR OC2: Reverse Pickup	0.050 pu
NEGATIVE SEQ DIR OC2: Block	OFF
NEGATIVE SEQ DIR OC2: Target	Self-reset
NEGATIVE SEQ DIR OC2: Events	Disabled

BREAKER FAILURE [GROUP 4]

BF1: Function	Disabled
BF1: Mode	3-Pole
BF1: Source	Barra (SRC 1)
BF1: Current Supervision	Yes
BF1: Use Seal-In	Yes
BF1: Three Pole Initiate	OFF
BF1: Block	OFF
BF1: Phase Current Supv Pickup	1.050 pu
BF1: Neutral Current Supv Pickup	1.050 pu
BF1: Use Timer 1	Yes
BF1: Timer 1 Pickup Delay	0.000 s
BF1: Use Timer 2	Yes
BF1: Timer 2 Pickup Delay	0.000 s
BF1: Use Timer 3	Yes
BF1: Timer 3 Pickup Delay	0.000 s
BF1: Breaker Pos1 Phase A/3P	OFF
BF1: Breaker Pos2 Phase A/3P	OFF
BF1: Breaker Test On	OFF
BF1: Phase Current HiSet Pickup	1.050 pu
BF1: Neutral Current HiSet Pickup	1.050 pu
BF1: Phase Current LoSet Pickup	1.050 pu
BF1: Neutral Current LoSet Pickup	1.050 pu

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

BREAKER FAILURE [GROUP 4] (continued from last page)

BF1: LoSet Time Delay	0.000 s
BF1: Trip Dropout Delay	0.000 s
BF1: Target	Self-reset
BF1: Events	Disabled
BF1: Phase A Initiate	OFF
BF1: Phase B Initiate	OFF
BF1: Phase C Initiate	OFF
BF1: Breaker Pos1 Phase B	OFF
BF1: Breaker Pos1 Phase C	OFF
BF1: Breaker Pos2 Phase B	OFF
BF1: Breaker Pos2 Phase C	OFF
BF2: Function	Disabled
BF2: Mode	3-Pole
BF2: Source	Barra (SRC 1)
BF2: Current Supervision	Yes
BF2: Use Seal-In	Yes
BF2: Three Pole Initiate	OFF
BF2: Block	OFF
BF2: Phase Current Supv Pickup	1.050 pu
BF2: Neutral Current Supv Pickup	1.050 pu
BF2: Use Timer 1	Yes
BF2: Timer 1 Pickup Delay	0.000 s
BF2: Use Timer 2	Yes
BF2: Timer 2 Pickup Delay	0.000 s
BF2: Use Timer 3	Yes
BF2: Timer 3 Pickup Delay	0.000 s
BF2: Breaker Pos1 Phase A/3P	OFF
BF2: Breaker Pos2 Phase A/3P	OFF
BF2: Breaker Test On	OFF
BF2: Phase Current HiSet Pickup	1.050 pu
BF2: Neutral Current HiSet Pickup	1.050 pu
BF2: Phase Current LoSet Pickup	1.050 pu
BF2: Neutral Current LoSet Pickup	1.050 pu
BF2: LoSet Time Delay	0.000 s
BF2: Trip Dropout Delay	0.000 s
BF2: Target	Self-reset
BF2: Events	Disabled
BF2: Phase A Initiate	OFF
BF2: Phase B Initiate	OFF
BF2: Phase C Initiate	OFF
BF2: Breaker Pos1 Phase B	OFF
BF2: Breaker Pos1 Phase C	OFF
BF2: Breaker Pos2 Phase B	OFF
BF2: Breaker Pos2 Phase C	OFF

VOLTAGE ELEMENTS

PHASE UV [GROUP 4]

PHASE UV1: Function	Disabled
PHASE UV1: Signal Source	Barra (SRC 1)
PHASE UV1: Mode	Phase to Ground
PHASE UV1: Pickup	1.000 pu
PHASE UV1: Curve	Definite Time
PHASE UV1: Delay	1.00 s
PHASE UV1: Minimum Voltage	0.100 pu
PHASE UV1: Block	OFF
PHASE UV1: Target	Self-reset
PHASE UV1: Events	Disabled
PHASE UV2: Function	Disabled
PHASE UV2: Signal Source	Barra (SRC 1)
PHASE UV2: Mode	Phase to Ground
PHASE UV2: Pickup	1.000 pu
PHASE UV2: Curve	Definite Time
PHASE UV2: Delay	1.00 s
PHASE UV2: Minimum Voltage	0.100 pu
PHASE UV2: Block	OFF

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

PHASE UV [GROUP 4] (continued from last page)

PHASE UV2: Target	Self-reset
PHASE UV2: Events	Disabled
PHASE UV3: Function	Disabled
PHASE UV3: Signal Source	Barra (SRC 1)
PHASE UV3: Mode	Phase to Ground
PHASE UV3: Pickup	1.000 pu
PHASE UV3: Curve	Definite Time
PHASE UV3: Delay	1.00 s
PHASE UV3: Minimum Voltage	0.100 pu
PHASE UV3: Block	OFF
PHASE UV3: Target	Self-reset
PHASE UV3: Events	Disabled

PHASE OV [GROUP 4]

PHASE OV1: Function	Disabled
PHASE OV1: Source	Barra (SRC 1)
PHASE OV1: Pickup	1.000 pu
PHASE OV1: Delay	1.00 s
PHASE OV1: Reset Delay	1.00 s
PHASE OV1: Block	OFF
PHASE OV1: Target	Self-reset
PHASE OV1: Events	Disabled

NEUTRAL OV [GROUP 4]

NEUTRAL OV 1: Function	Disabled
NEUTRAL OV 1: Source	Barra (SRC 1)
NEUTRAL OV 1: Pickup	0.300 pu
NEUTRAL OV 1: Curve	Definite Time
NEUTRAL OV 1: Pickup Delay	1.00 s
NEUTRAL OV 1: Reset Delay	1.00 s
NEUTRAL OV 1: Block	OFF
NEUTRAL OV 1: Target	Self-reset
NEUTRAL OV 1: Events	Disabled
NEUTRAL OV 2: Function	Disabled
NEUTRAL OV 2: Source	Barra (SRC 1)
NEUTRAL OV 2: Pickup	0.300 pu
NEUTRAL OV 2: Curve	Definite Time
NEUTRAL OV 2: Pickup Delay	1.00 s
NEUTRAL OV 2: Reset Delay	1.00 s
NEUTRAL OV 2: Block	OFF
NEUTRAL OV 2: Target	Self-reset
NEUTRAL OV 2: Events	Disabled
NEUTRAL OV 3: Function	Disabled
NEUTRAL OV 3: Source	Barra (SRC 1)
NEUTRAL OV 3: Pickup	0.300 pu
NEUTRAL OV 3: Curve	Definite Time
NEUTRAL OV 3: Pickup Delay	1.00 s
NEUTRAL OV 3: Reset Delay	1.00 s
NEUTRAL OV 3: Block	OFF
NEUTRAL OV 3: Target	Self-reset
NEUTRAL OV 3: Events	Disabled

NEGATIVE SEQUENCE OV [GROUP 4]

NEG SEQ OV1: Function	Disabled
NEG SEQ OV1: Source	Barra (SRC 1)
NEG SEQ OV1: Pickup	0.300 pu
NEG SEQ OV1: Pickup Delay	0.50 s
NEG SEQ OV1: Reset Delay	0.50 s
NEG SEQ OV1: Block	OFF
NEG SEQ OV1: Target	Self-reset
NEG SEQ OV1: Events	Disabled
NEG SEQ OV2: Function	Disabled
NEG SEQ OV2: Source	Barra (SRC 1)
NEG SEQ OV2: Pickup	0.300 pu
NEG SEQ OV2: Pickup Delay	0.50 s

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

NEGATIVE SEQUENCE OV [GROUP 4] (continued from last page)

NEG SEQ OV2: Reset Delay	0.50 s
NEG SEQ OV2: Block	OFF
NEG SEQ OV2: Target	Self-reset
NEG SEQ OV2: Events	Disabled
NEG SEQ OV3: Function	Disabled
NEG SEQ OV3: Source	Barra (SRC 1)
NEG SEQ OV3: Pickup	0.300 pu
NEG SEQ OV3: Pickup Delay	0.50 s
NEG SEQ OV3: Reset Delay	0.50 s
NEG SEQ OV3: Block	OFF
NEG SEQ OV3: Target	Self-reset
NEG SEQ OV3: Events	Disabled

AUXILIARY UV [GROUP 4]

AUXILIARY UV 1: Function	Disabled
AUXILIARY UV 1: Source	Barra (SRC 1)
AUXILIARY UV 1: Pickup	0.700 pu
AUXILIARY UV 1: Curve	Definite Time
AUXILIARY UV 1: Delay	1.00 s
AUXILIARY UV 1: Minimum Voltage	0.100 pu
AUXILIARY UV 1: Block	OFF
AUXILIARY UV 1: Target	Self-reset
AUXILIARY UV 1: Events	Disabled

AUXILIARY OV [GROUP 4]

AUXILIARY OV 1: Function	Disabled
AUXILIARY OV 1: Source	Barra (SRC 1)
AUXILIARY OV 1: Pickup	0.300 pu
AUXILIARY OV 1: Pickup Delay	1.00 s
AUXILIARY OV 1: Reset Delay	1.00 s
AUXILIARY OV 1: Block	OFF
AUXILIARY OV 1: Target	Self-reset
AUXILIARY OV 1: Events	Disabled

COMPENSATED OVERVOLTAGE [GROUP 4]

Compensated OV Function	Disabled
Compensated OV Source	Barra (SRC 1)
Compensated OV Zc Mag	2.00 ohm
Compensated OV Zc Ang	90 deg
Compensated OV I_1max	0.20 pu
Compensated OV STG1 PKP	1.300 pu
Compensated OV STG1 Delay	1.00 sec
Compensated OV STG2 PKP	1.300 pu
Compensated OV STG2 Delay	1.00 sec
Compensated OV STG3 PKP	1.300 pu
Compensated OV STG3 Delay	1.00 sec
Compensated OV Block	OFF
Compensated OV Target	Self-reset
Compensated OV Events	Disabled

POWER

SENSITIVE DIRECTIONAL POWER [GROUP 4]

SENS DIR POWER1: Function	Disabled
SENS DIR POWER1: Signal Source	Barra (SRC 1)
SENS DIR POWER1: Sensitive Directional Power RCA	0 deg
SENS DIR POWER1: Sensitive Directional Power Calibration	0.00 deg
SENS DIR POWER1: Stage 1 SMIN	0.100 pu
SENS DIR POWER1: Stage 1 Delay	0.50 s
SENS DIR POWER1: Stage 2 SMIN	0.100 pu
SENS DIR POWER1: Stage 2 Delay	20.00 s
SENS DIR POWER1: Block	OFF
SENS DIR POWER1: Target	Self-reset
SENS DIR POWER1: Events	Disabled
SENS DIR POWER2: Function	Disabled
SENS DIR POWER2: Signal Source	Barra (SRC 1)

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

SENSITIVE DIRECTIONAL POWER [GROUP 4] (continued from last page)

SENS DIR POWER2: Sensitive Directional Power RCA	0 deg
SENS DIR POWER2: Sensitive Directional Power Calibration	0.00 deg
SENS DIR POWER2: Stage 1 SMIN	0.100 pu
SENS DIR POWER2: Stage 1 Delay	0.50 s
SENS DIR POWER2: Stage 2 SMIN	0.100 pu
SENS DIR POWER2: Stage 2 Delay	20.00 s
SENS DIR POWER2: Block	OFF
SENS DIR POWER2: Target	Self-reset
SENS DIR POWER2: Events	Disabled

GROUP 5

LINE PICKUP [GROUP 5]

Function	Disabled
Signal Source	Barra (SRC 1)
Phase IOC Line Pickup	1.000 pu
UV Pickup	0.700 pu
Line End Open Pickup Delay	0.150 s
Line End Open Reset Delay	0.090 s
OV Pickup Delay	0.040 s
Autoreclose Coordination Bypass	Enabled
Autoreclose Coordination Pickup Delay	0.045 s
Autoreclose Coordination Reset Delay	0.005 s
Terminal Open	OFF
AR Accelerate	OFF
Distance Trip	Enabled
Block	OFF
Target	Self-reset
Events	Disabled

DISTANCE

DISTANCE [GROUP 5]

Source	Barra (SRC 1)
Memory Duration	10 cycles
Force Self-Polar	OFF
Force Mem-Polar	OFF

PHASE DISTANCE [GROUP 5]

PHASE DISTANCE Z1: Function	Disabled
PHASE DISTANCE Z1: Direction	Forward
PHASE DISTANCE Z1: Shape	Mho
PHASE DISTANCE Z1: Xfmr Vol Connection	None
PHASE DISTANCE Z1: Xfmr Curr Connection	None
PHASE DISTANCE Z1: Reach	2.00 ohms
PHASE DISTANCE Z1: RCA	85 deg
PHASE DISTANCE Z1: Rev Reach	2.00 ohms
PHASE DISTANCE Z1: Rev Reach RCA	85 deg
PHASE DISTANCE Z1: Comp Limit	90 deg
PHASE DISTANCE Z1: DIR RCA	85 deg
PHASE DISTANCE Z1: DIR Comp Limit	90 deg
PHASE DISTANCE Z1: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z1: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z1: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z1: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z1: Supervision	0.200 pu
PHASE DISTANCE Z1: Volt Level	0.000 pu
PHASE DISTANCE Z1: Delay	0.000 s
PHASE DISTANCE Z1: Block	OFF
PHASE DISTANCE Z1: Target	Self-reset
PHASE DISTANCE Z1: Events	Disabled
PHASE DISTANCE Z2: Function	Disabled
PHASE DISTANCE Z2: Direction	Forward
PHASE DISTANCE Z2: Shape	Mho
PHASE DISTANCE Z2: Xfmr Vol Connection	None
PHASE DISTANCE Z2: Xfmr Curr Connection	None
PHASE DISTANCE Z2: Reach	2.00 ohms

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

PHASE DISTANCE [GROUP 5] (continued from last page)

PHASE DISTANCE Z2: RCA	85 deg
PHASE DISTANCE Z2: Rev Reach	2.00 ohms
PHASE DISTANCE Z2: Rev Reach RCA	85 deg
PHASE DISTANCE Z2: Comp Limit	90 deg
PHASE DISTANCE Z2: DIR RCA	85 deg
PHASE DISTANCE Z2: DIR Comp Limit	90 deg
PHASE DISTANCE Z2: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z2: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z2: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z2: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z2: Supervision	0.200 pu
PHASE DISTANCE Z2: Volt Level	0.000 pu
PHASE DISTANCE Z2: Delay	0.000 s
PHASE DISTANCE Z2: Block	OFF
PHASE DISTANCE Z2: Target	Self-reset
PHASE DISTANCE Z2: Events	Disabled
PHASE DISTANCE Z3: Function	Disabled
PHASE DISTANCE Z3: Direction	Forward
PHASE DISTANCE Z3: Shape	Mho
PHASE DISTANCE Z3: Xfmr Vol Connection	None
PHASE DISTANCE Z3: Xfmr Curr Connection	None
PHASE DISTANCE Z3: Reach	2.00 ohms
PHASE DISTANCE Z3: RCA	85 deg
PHASE DISTANCE Z3: Rev Reach	2.00 ohms
PHASE DISTANCE Z3: Rev Reach RCA	85 deg
PHASE DISTANCE Z3: Comp Limit	90 deg
PHASE DISTANCE Z3: DIR RCA	85 deg
PHASE DISTANCE Z3: DIR Comp Limit	90 deg
PHASE DISTANCE Z3: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z3: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z3: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z3: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z3: Supervision	0.200 pu
PHASE DISTANCE Z3: Volt Level	0.000 pu
PHASE DISTANCE Z3: Delay	0.000 s
PHASE DISTANCE Z3: Block	OFF
PHASE DISTANCE Z3: Target	Self-reset
PHASE DISTANCE Z3: Events	Disabled
PHASE DISTANCE Z4: Function	Disabled
PHASE DISTANCE Z4: Direction	Forward
PHASE DISTANCE Z4: Shape	Mho
PHASE DISTANCE Z4: Xfmr Vol Connection	None
PHASE DISTANCE Z4: Xfmr Curr Connection	None
PHASE DISTANCE Z4: Reach	2.00 ohms
PHASE DISTANCE Z4: RCA	85 deg
PHASE DISTANCE Z4: Rev Reach	2.00 ohms
PHASE DISTANCE Z4: Rev Reach RCA	85 deg
PHASE DISTANCE Z4: Comp Limit	90 deg
PHASE DISTANCE Z4: DIR RCA	85 deg
PHASE DISTANCE Z4: DIR Comp Limit	90 deg
PHASE DISTANCE Z4: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z4: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z4: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z4: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z4: Supervision	0.200 pu
PHASE DISTANCE Z4: Volt Level	0.000 pu
PHASE DISTANCE Z4: Delay	0.000 s
PHASE DISTANCE Z4: Block	OFF
PHASE DISTANCE Z4: Target	Self-reset
PHASE DISTANCE Z4: Events	Disabled
PHASE DISTANCE Z5: Function	Disabled
PHASE DISTANCE Z5: Direction	Forward
PHASE DISTANCE Z5: Shape	Mho
PHASE DISTANCE Z5: Xfmr Vol Connection	None
PHASE DISTANCE Z5: Xfmr Curr Connection	None

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

PHASE DISTANCE [GROUP 5] (continued from last page)

PHASE DISTANCE Z5: Reach	2.00 ohms
PHASE DISTANCE Z5: RCA	85 deg
PHASE DISTANCE Z5: Rev Reach	2.00 ohms
PHASE DISTANCE Z5: Rev Reach RCA	85 deg
PHASE DISTANCE Z5: Comp Limit	90 deg
PHASE DISTANCE Z5: DIR RCA	85 deg
PHASE DISTANCE Z5: DIR Comp Limit	90 deg
PHASE DISTANCE Z5: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z5: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z5: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z5: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z5: Supervision	0.200 pu
PHASE DISTANCE Z5: Volt Level	0.000 pu
PHASE DISTANCE Z5: Delay	0.000 s
PHASE DISTANCE Z5: Block	OFF
PHASE DISTANCE Z5: Target	Self-reset
PHASE DISTANCE Z5: Events	Disabled

GROUND DISTANCE [GROUP 5]

GROUND DISTANCE Z1: Function	Disabled
GROUND DISTANCE Z1: Direction	Forward
GROUND DISTANCE Z1: Shape	Mho
GROUND DISTANCE Z1: Z0/Z1 Mag	2.70
GROUND DISTANCE Z1: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z1: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z1: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z1: Reach	2.00 ohms
GROUND DISTANCE Z1: RCA	85 deg
GROUND DISTANCE Z1: Rev Reach	2.00 ohms
GROUND DISTANCE Z1: Rev Reach RCA	85 deg
GROUND DISTANCE Z1: POL Current	Zero-seq
GROUND DISTANCE Z1: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z1: Comp Limit	90 deg
GROUND DISTANCE Z1: DIR RCA	85 deg
GROUND DISTANCE Z1: DIR Comp Limit	90 deg
GROUND DISTANCE Z1: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z1: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z1: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z1: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z1: Supervision	0.200 pu
GROUND DISTANCE Z1: Volt Level	0.000 pu
GROUND DISTANCE Z1: Delay	0.000 s
GROUND DISTANCE Z1: Block	OFF
GROUND DISTANCE Z1: Target	Self-reset
GROUND DISTANCE Z1: Events	Disabled
GROUND DISTANCE Z2: Function	Disabled
GROUND DISTANCE Z2: Direction	Forward
GROUND DISTANCE Z2: Shape	Mho
GROUND DISTANCE Z2: Z0/Z1 Mag	2.70
GROUND DISTANCE Z2: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z2: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z2: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z2: Reach	2.00 ohms
GROUND DISTANCE Z2: RCA	85 deg
GROUND DISTANCE Z2: Rev Reach	2.00 ohms
GROUND DISTANCE Z2: Rev Reach RCA	85 deg
GROUND DISTANCE Z2: POL Current	Zero-seq
GROUND DISTANCE Z2: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z2: Comp Limit	90 deg
GROUND DISTANCE Z2: DIR RCA	85 deg
GROUND DISTANCE Z2: DIR Comp Limit	90 deg
GROUND DISTANCE Z2: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z2: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z2: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z2: Quad Left Blinder RCA	85 deg

SE_LMQS_H3_S1 GE_D60 RLST20151007.URS
S:\11_BD INFOTEC\00 COLBUN SA\42 AJUSTES DE PROTECCIONES
DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

GROUND DISTANCE [GROUP 5] (continued from last page)

GROUND DISTANCE Z2: Supervision	0.200 pu
GROUND DISTANCE Z2: Volt Level	0.000 pu
GROUND DISTANCE Z2: Delay	0.000 s
GROUND DISTANCE Z2: Block	OFF
GROUND DISTANCE Z2: Target	Self-reset
GROUND DISTANCE Z2: Events	Disabled
GROUND DISTANCE Z3: Function	Disabled
GROUND DISTANCE Z3: Direction	Forward
GROUND DISTANCE Z3: Shape	Mho
GROUND DISTANCE Z3: Z0/Z1 Mag	2.70
GROUND DISTANCE Z3: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z3: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z3: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z3: Reach	2.00 ohms
GROUND DISTANCE Z3: RCA	85 deg
GROUND DISTANCE Z3: Rev Reach	2.00 ohms
GROUND DISTANCE Z3: Rev Reach RCA	85 deg
GROUND DISTANCE Z3: POL Current	Zero-seq
GROUND DISTANCE Z3: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z3: Comp Limit	90 deg
GROUND DISTANCE Z3: DIR RCA	85 deg
GROUND DISTANCE Z3: DIR Comp Limit	90 deg
GROUND DISTANCE Z3: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z3: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z3: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z3: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z3: Supervision	0.200 pu
GROUND DISTANCE Z3: Volt Level	0.000 pu
GROUND DISTANCE Z3: Delay	0.000 s
GROUND DISTANCE Z3: Block	OFF
GROUND DISTANCE Z3: Target	Self-reset
GROUND DISTANCE Z3: Events	Disabled
GROUND DISTANCE Z4: Function	Disabled
GROUND DISTANCE Z4: Direction	Forward
GROUND DISTANCE Z4: Shape	Mho
GROUND DISTANCE Z4: Z0/Z1 Mag	2.70
GROUND DISTANCE Z4: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z4: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z4: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z4: Reach	2.00 ohms
GROUND DISTANCE Z4: RCA	85 deg
GROUND DISTANCE Z4: Rev Reach	2.00 ohms
GROUND DISTANCE Z4: Rev Reach RCA	85 deg
GROUND DISTANCE Z4: POL Current	Zero-seq
GROUND DISTANCE Z4: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z4: Comp Limit	90 deg
GROUND DISTANCE Z4: DIR RCA	85 deg
GROUND DISTANCE Z4: DIR Comp Limit	90 deg
GROUND DISTANCE Z4: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z4: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z4: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z4: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z4: Supervision	0.200 pu
GROUND DISTANCE Z4: Volt Level	0.000 pu
GROUND DISTANCE Z4: Delay	0.000 s
GROUND DISTANCE Z4: Block	OFF
GROUND DISTANCE Z4: Target	Self-reset
GROUND DISTANCE Z4: Events	Disabled
GROUND DISTANCE Z5: Function	Disabled
GROUND DISTANCE Z5: Direction	Forward
GROUND DISTANCE Z5: Shape	Mho
GROUND DISTANCE Z5: Z0/Z1 Mag	2.70
GROUND DISTANCE Z5: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z5: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z5: Z0M/Z1 Ang	0 deg

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DESCRIPTION: (NONE)
TEXT COLOR

GROUND DISTANCE [GROUP 5] (continued from last page)

GROUND DISTANCE Z5: Reach	2.00 ohms
GROUND DISTANCE Z5: RCA	85 deg
GROUND DISTANCE Z5: Rev Reach	2.00 ohms
GROUND DISTANCE Z5: Rev Reach RCA	85 deg
GROUND DISTANCE Z5: POL Current	Zero-seq
GROUND DISTANCE Z5: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z5: Comp Limit	90 deg
GROUND DISTANCE Z5: DIR RCA	85 deg
GROUND DISTANCE Z5: DIR Comp Limit	90 deg
GROUND DISTANCE Z5: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z5: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z5: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z5: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z5: Supervision	0.200 pu
GROUND DISTANCE Z5: Volt Level	0.000 pu
GROUND DISTANCE Z5: Delay	0.000 s
GROUND DISTANCE Z5: Block	OFF
GROUND DISTANCE Z5: Target	Self-reset
GROUND DISTANCE Z5: Events	Disabled

POWER SWING DETECT [GROUP 5]

Function	Disabled
Source	Barra (SRC 1)
Shape	Mho Shape
Mode	Two Step
Supv	0.600 pu
Fwd Reach	50.00 ohms
Quad Fwd Mid	60.00 ohms
Quad Fwd Out	70.00 ohms
Fwd Rca	75 deg
Rev Reach	50.00 ohms
Quad Rev Mid	60.00 ohms
Quad Rev Out	70.00 ohms
Rev Rca	75 deg
Outer Limit Angle	120 deg
Middle Limit Angle	90 deg
Inner Limit Angle	60 deg
Outer Rgt Bld	100.00 ohms
Outer Lft Bld	100.00 ohms
Midle Rgt Bld	100.00 ohms
Midle Lft Bld	100.00 ohms
Inner Rgt Bld	100.00 ohms
Inner Lft Bld	100.00 ohms
Delay 1 Pickup	0.030 s
Delay 1 Reset	0.050 s
Delay 2 Pickup	0.017 s
Delay 3 Pickup	0.009 s
Delay 4 Pickup	0.017 s
Seal-In Delay	0.400 s
Trip Mode	Delayed
Block	OFF
Target	Self-reset
Event	Disabled

LOAD ENCROACHMENT [GROUP 5]

Function	Disabled
Source	Barra (SRC 1)
Min Volt	0.250 pu
Reach	1.00 ohms
Angle	30 deg
Pickup Delay	0.000 s
Reset Delay	0.000 s
Block	OFF
Target	Self-reset
Events	Disabled

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DESCRIPTION: (NONE)
TEXT COLOR

PHASE CURRENT

PHASE TOC [GROUP 5]

PHASE TOC1: Function	Disabled
PHASE TOC1: Signal Source	Barra (SRC 1)
PHASE TOC1: Input	Phasor
PHASE TOC1: Pickup	1.000 pu
PHASE TOC1: Curve	IEEE Mod Inv
PHASE TOC1: TD Multiplier	1.00
PHASE TOC1: Reset	Instantaneous
PHASE TOC1: Voltage Restraint	Disabled
PHASE TOC1: Block A	OFF
PHASE TOC1: Block B	OFF
PHASE TOC1: Block C	OFF
PHASE TOC1: Target	Self-reset
PHASE TOC1: Events	Disabled
PHASE TOC2: Function	Disabled
PHASE TOC2: Signal Source	Barra (SRC 1)
PHASE TOC2: Input	Phasor
PHASE TOC2: Pickup	1.000 pu
PHASE TOC2: Curve	IEEE Mod Inv
PHASE TOC2: TD Multiplier	1.00
PHASE TOC2: Reset	Instantaneous
PHASE TOC2: Voltage Restraint	Disabled
PHASE TOC2: Block A	OFF
PHASE TOC2: Block B	OFF
PHASE TOC2: Block C	OFF
PHASE TOC2: Target	Self-reset
PHASE TOC2: Events	Disabled

PHASE IOC [GROUP 5]

PHASE IOC1: Function	Disabled
PHASE IOC1: Source	Barra (SRC 1)
PHASE IOC1: Pickup	1.000 pu
PHASE IOC1: Delay	0.00 s
PHASE IOC1: Reset Delay	0.00 s
PHASE IOC1: Block A	OFF
PHASE IOC1: Block B	OFF
PHASE IOC1: Block C	OFF
PHASE IOC1: Target	Self-reset
PHASE IOC1: Events	Disabled
PHASE IOC2: Function	Disabled
PHASE IOC2: Source	Barra (SRC 1)
PHASE IOC2: Pickup	1.000 pu
PHASE IOC2: Delay	0.00 s
PHASE IOC2: Reset Delay	0.00 s
PHASE IOC2: Block A	OFF
PHASE IOC2: Block B	OFF
PHASE IOC2: Block C	OFF
PHASE IOC2: Target	Self-reset
PHASE IOC2: Events	Disabled

PHASE DIRECTIONAL [GROUP 5]

PHASE DIR1: Function	Disabled
PHASE DIR1: Source	Barra (SRC 1)
PHASE DIR1: Block	OFF
PHASE DIR1: ECA	30 deg
PHASE DIR1: Pol V Threshold	0.700 pu
PHASE DIR1: Block when V Mem Exp	No
PHASE DIR1: Target	Self-reset
PHASE DIR1: Events	Disabled
PHASE DIR2: Function	Disabled
PHASE DIR2: Source	Barra (SRC 1)
PHASE DIR2: Block	OFF
PHASE DIR2: ECA	30 deg
PHASE DIR2: Pol V Threshold	0.700 pu

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DESCRIPTION: (NONE)
TEXT COLOR

PHASE DIRECTIONAL [GROUP 5] (continued from last page)

PHASE DIR2: Block when V Mem Exp	No
PHASE DIR2: Target	Self-reset
PHASE DIR2: Events	Disabled

NEUTRAL CURRENT

NEUTRAL TOC [GROUP 5]

NEUTRAL TOC1: Function	Disabled
NEUTRAL TOC1: Source	Barra (SRC 1)
NEUTRAL TOC1: Input	Phasor
NEUTRAL TOC1: Pickup	1.000 pu
NEUTRAL TOC1: Curve	IEEE Mod Inv
NEUTRAL TOC1: TD Multiplier	1.00
NEUTRAL TOC1: Reset	Instantaneous
NEUTRAL TOC1: Block	OFF
NEUTRAL TOC1: Target	Self-reset
NEUTRAL TOC1: Events	Disabled
NEUTRAL TOC2: Function	Disabled
NEUTRAL TOC2: Source	Barra (SRC 1)
NEUTRAL TOC2: Input	Phasor
NEUTRAL TOC2: Pickup	1.000 pu
NEUTRAL TOC2: Curve	IEEE Mod Inv
NEUTRAL TOC2: TD Multiplier	1.00
NEUTRAL TOC2: Reset	Instantaneous
NEUTRAL TOC2: Block	OFF
NEUTRAL TOC2: Target	Self-reset
NEUTRAL TOC2: Events	Disabled

NEUTRAL IOC [GROUP 5]

NEUTRAL IOC1: Function	Disabled
NEUTRAL IOC1: Source	Barra (SRC 1)
NEUTRAL IOC1: Pickup	1.000 pu
NEUTRAL IOC1: Delay	0.00 s
NEUTRAL IOC1: Reset Delay	0.00 s
NEUTRAL IOC1: Block	OFF
NEUTRAL IOC1: Target	Self-reset
NEUTRAL IOC1: Events	Disabled
NEUTRAL IOC2: Function	Disabled
NEUTRAL IOC2: Source	Barra (SRC 1)
NEUTRAL IOC2: Pickup	1.000 pu
NEUTRAL IOC2: Delay	0.00 s
NEUTRAL IOC2: Reset Delay	0.00 s
NEUTRAL IOC2: Block	OFF
NEUTRAL IOC2: Target	Self-reset
NEUTRAL IOC2: Events	Disabled

NEUTRAL DIRECTIONAL OC [GROUP 5]

NEUTRAL DIR OC1: Function	Disabled
NEUTRAL DIR OC1: Source	Barra (SRC 1)
NEUTRAL DIR OC1: Polarizing	Voltage
NEUTRAL DIR OC1: Polarizing Volt	Calculated V0
NEUTRAL DIR OC1: Op Current	Calculated 3I0
NEUTRAL DIR OC1: POS SEQ Restraint	0.063
NEUTRAL DIR OC1: Offset	0.00 ohms
NEUTRAL DIR OC1: Forward ECA	75 ° Lag
NEUTRAL DIR OC1: Forward Limit Angle	90 deg
NEUTRAL DIR OC1: Forward Pickup	0.050 pu
NEUTRAL DIR OC1: Reverse Limit Angle	90 deg
NEUTRAL DIR OC1: Reverse Pickup	0.050 pu
NEUTRAL DIR OC1: Block	OFF
NEUTRAL DIR OC1: Target	Self-reset
NEUTRAL DIR OC1: Events	Disabled
NEUTRAL DIR OC2: Function	Disabled
NEUTRAL DIR OC2: Source	Barra (SRC 1)
NEUTRAL DIR OC2: Polarizing	Voltage
NEUTRAL DIR OC2: Polarizing Volt	Calculated V0

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DESCRIPTION: (NONE)
TEXT COLOR

NEUTRAL DIRECTIONAL OC [GROUP 5] (continued from last page)

NEUTRAL DIR OC2: Op Current	Calculated 3I0
NEUTRAL DIR OC2: POS SEQ Restraint	0.063
NEUTRAL DIR OC2: Offset	0.00 ohms
NEUTRAL DIR OC2: Forward ECA	75 ° Lag
NEUTRAL DIR OC2: Forward Limit Angle	90 deg
NEUTRAL DIR OC2: Forward Pickup	0.050 pu
NEUTRAL DIR OC2: Reverse Limit Angle	90 deg
NEUTRAL DIR OC2: Reverse Pickup	0.050 pu
NEUTRAL DIR OC2: Block	OFF
NEUTRAL DIR OC2: Target	Self-reset
NEUTRAL DIR OC2: Events	Disabled

WATTMETRIC GROUND FAULT [GROUP 5]

WATTMETRIC GND FLT 1: Function	Disabled
WATTMETRIC GND FLT 1: Source	Barra (SRC 1)
WATTMETRIC GND FLT 1: Voltage	Calculated VN
WATTMETRIC GND FLT 1: OV Pickup	0.20 pu
WATTMETRIC GND FLT 1: Current	Calculated IN
WATTMETRIC GND FLT 1: OC Pickup	0.060 pu
WATTMETRIC GND FLT 1: OC Pickup Delay	0.20 s
WATTMETRIC GND FLT 1: Power Pickup	0.100 pu
WATTMETRIC GND FLT 1: Ref Power	0.500 pu
WATTMETRIC GND FLT 1: ECA	0 ° Lag
WATTMETRIC GND FLT 1: Power Pickup Delay	0.20 s
WATTMETRIC GND FLT 1: Curve	Definite Time
WATTMETRIC GND FLT 1: Multiplier	1.00 s
WATTMETRIC GND FLT 1: Block	OFF
WATTMETRIC GND FLT 1: Target	Self-reset
WATTMETRIC GND FLT 1: Events	Disabled
WATTMETRIC GND FLT 2: Function	Disabled
WATTMETRIC GND FLT 2: Source	Barra (SRC 1)
WATTMETRIC GND FLT 2: Voltage	Calculated VN
WATTMETRIC GND FLT 2: OV Pickup	0.20 pu
WATTMETRIC GND FLT 2: Current	Calculated IN
WATTMETRIC GND FLT 2: OC Pickup	0.060 pu
WATTMETRIC GND FLT 2: OC Pickup Delay	0.20 s
WATTMETRIC GND FLT 2: Power Pickup	0.100 pu
WATTMETRIC GND FLT 2: Ref Power	0.500 pu
WATTMETRIC GND FLT 2: ECA	0 ° Lag
WATTMETRIC GND FLT 2: Power Pickup Delay	0.20 s
WATTMETRIC GND FLT 2: Curve	Definite Time
WATTMETRIC GND FLT 2: Multiplier	1.00 s
WATTMETRIC GND FLT 2: Block	OFF
WATTMETRIC GND FLT 2: Target	Self-reset
WATTMETRIC GND FLT 2: Events	Disabled

GROUND CURRENT

GROUND TOC [GROUP 5]

GROUND TOC1: Function	Disabled
GROUND TOC1: Source	Barra (SRC 1)
GROUND TOC1: Input	Phasor
GROUND TOC1: Pickup	1.000 pu
GROUND TOC1: Curve	IEEE Mod Inv
GROUND TOC1: TD Multiplier	1.00
GROUND TOC1: Reset	Instantaneous
GROUND TOC1: Block	OFF
GROUND TOC1: Target	Self-reset
GROUND TOC1: Events	Disabled
GROUND TOC2: Function	Disabled
GROUND TOC2: Source	Barra (SRC 1)
GROUND TOC2: Input	Phasor
GROUND TOC2: Pickup	1.000 pu
GROUND TOC2: Curve	IEEE Mod Inv
GROUND TOC2: TD Multiplier	1.00
GROUND TOC2: Reset	Instantaneous

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DESCRIPTION: (NONE)
TEXT COLOR

GROUND TOC [GROUP 5] (continued from last page)

GROUND TOC2: Block	OFF
GROUND TOC2: Target	Self-reset
GROUND TOC2: Events	Disabled

GROUND IOC [GROUP 5]

GROUND IOC1: Function	Disabled
GROUND IOC1: Source	Barra (SRC 1)
GROUND IOC1: Pickup	1.000 pu
GROUND IOC1: Delay	0.00 s
GROUND IOC1: Reset Delay	0.00 s
GROUND IOC1: Block	OFF
GROUND IOC1: Target	Self-reset
GROUND IOC1: Events	Disabled
GROUND IOC2: Function	Disabled
GROUND IOC2: Source	Barra (SRC 1)
GROUND IOC2: Pickup	1.000 pu
GROUND IOC2: Delay	0.00 s
GROUND IOC2: Reset Delay	0.00 s
GROUND IOC2: Block	OFF
GROUND IOC2: Target	Self-reset
GROUND IOC2: Events	Disabled

NEGATIVE SEQUENCE CURRENT

NEGATIVE SEQUENCE TOC [GROUP 5]

NEGATIVE SEQ TOC1: Function	Disabled
NEGATIVE SEQ TOC1: Source	Barra (SRC 1)
NEGATIVE SEQ TOC1: Pickup	1.000 pu
NEGATIVE SEQ TOC1: Curve	IEEE Mod Inv
NEGATIVE SEQ TOC1: TD Multiplier	1.00
NEGATIVE SEQ TOC1: Reset	Instantaneous
NEGATIVE SEQ TOC1: Block	OFF
NEGATIVE SEQ TOC1: Target	Self-reset
NEGATIVE SEQ TOC1: Events	Disabled
NEGATIVE SEQ TOC2: Function	Disabled
NEGATIVE SEQ TOC2: Source	Barra (SRC 1)
NEGATIVE SEQ TOC2: Pickup	1.000 pu
NEGATIVE SEQ TOC2: Curve	IEEE Mod Inv
NEGATIVE SEQ TOC2: TD Multiplier	1.00
NEGATIVE SEQ TOC2: Reset	Instantaneous
NEGATIVE SEQ TOC2: Block	OFF
NEGATIVE SEQ TOC2: Target	Self-reset
NEGATIVE SEQ TOC2: Events	Disabled

NEGATIVE SEQUENCE IOC [GROUP 5]

NEGATIVE SEQ IOC1: Function	Disabled
NEGATIVE SEQ IOC1: Source	Barra (SRC 1)
NEGATIVE SEQ IOC1: Pickup	1.000 pu
NEGATIVE SEQ IOC1: Delay	0.00 s
NEGATIVE SEQ IOC1: Reset Delay	0.00 s
NEGATIVE SEQ IOC1: Block	OFF
NEGATIVE SEQ IOC1: Target	Self-reset
NEGATIVE SEQ IOC1: Events	Disabled
NEGATIVE SEQ IOC2: Function	Disabled
NEGATIVE SEQ IOC2: Source	Barra (SRC 1)
NEGATIVE SEQ IOC2: Pickup	1.000 pu
NEGATIVE SEQ IOC2: Delay	0.00 s
NEGATIVE SEQ IOC2: Reset Delay	0.00 s
NEGATIVE SEQ IOC2: Block	OFF
NEGATIVE SEQ IOC2: Target	Self-reset
NEGATIVE SEQ IOC2: Events	Disabled

NEGATIVE SEQUENCE DIRECTIONAL OC [GROUP 5]

NEGATIVE SEQ DIR OC1: Function	Disabled
NEGATIVE SEQ DIR OC1: Source	Barra (SRC 1)
NEGATIVE SEQ DIR OC1: Offset	0.00 ohms

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DESCRIPTION: (NONE)
TEXT COLOR

NEGATIVE SEQUENCE DIRECTIONAL OC [GROUP 5] (continued from last page)

NEGATIVE SEQ DIR OC1: Type	Neg Sequence
NEGATIVE SEQ DIR OC1: POS SEQ Restraint	0.063
NEGATIVE SEQ DIR OC1: Forward ECA	75 ° Lag
NEGATIVE SEQ DIR OC1: Forward Limit Angle	90 deg
NEGATIVE SEQ DIR OC1: Forward Pickup	0.050 pu
NEGATIVE SEQ DIR OC1: Reverse Limit Angle	90 deg
NEGATIVE SEQ DIR OC1: Reverse Pickup	0.050 pu
NEGATIVE SEQ DIR OC1: Block	OFF
NEGATIVE SEQ DIR OC1: Target	Self-reset
NEGATIVE SEQ DIR OC1: Events	Disabled
NEGATIVE SEQ DIR OC2: Function	Disabled
NEGATIVE SEQ DIR OC2: Source	Barra (SRC 1)
NEGATIVE SEQ DIR OC2: Offset	0.00 ohms
NEGATIVE SEQ DIR OC2: Type	Neg Sequence
NEGATIVE SEQ DIR OC2: POS SEQ Restraint	0.063
NEGATIVE SEQ DIR OC2: Forward ECA	75 ° Lag
NEGATIVE SEQ DIR OC2: Forward Limit Angle	90 deg
NEGATIVE SEQ DIR OC2: Forward Pickup	0.050 pu
NEGATIVE SEQ DIR OC2: Reverse Limit Angle	90 deg
NEGATIVE SEQ DIR OC2: Reverse Pickup	0.050 pu
NEGATIVE SEQ DIR OC2: Block	OFF
NEGATIVE SEQ DIR OC2: Target	Self-reset
NEGATIVE SEQ DIR OC2: Events	Disabled

BREAKER FAILURE [GROUP 5]

BF1: Function	Disabled
BF1: Mode	3-Pole
BF1: Source	Barra (SRC 1)
BF1: Current Supervision	Yes
BF1: Use Seal-In	Yes
BF1: Three Pole Initiate	OFF
BF1: Block	OFF
BF1: Phase Current Supv Pickup	1.050 pu
BF1: Neutral Current Supv Pickup	1.050 pu
BF1: Use Timer 1	Yes
BF1: Timer 1 Pickup Delay	0.000 s
BF1: Use Timer 2	Yes
BF1: Timer 2 Pickup Delay	0.000 s
BF1: Use Timer 3	Yes
BF1: Timer 3 Pickup Delay	0.000 s
BF1: Breaker Pos1 Phase A/3P	OFF
BF1: Breaker Pos2 Phase A/3P	OFF
BF1: Breaker Test On	OFF
BF1: Phase Current HiSet Pickup	1.050 pu
BF1: Neutral Current HiSet Pickup	1.050 pu
BF1: Phase Current LoSet Pickup	1.050 pu
BF1: Neutral Current LoSet Pickup	1.050 pu
BF1: LoSet Time Delay	0.000 s
BF1: Trip Dropout Delay	0.000 s
BF1: Target	Self-reset
BF1: Events	Disabled
BF1: Phase A Initiate	OFF
BF1: Phase B Initiate	OFF
BF1: Phase C Initiate	OFF
BF1: Breaker Pos1 Phase B	OFF
BF1: Breaker Pos1 Phase C	OFF
BF1: Breaker Pos2 Phase B	OFF
BF1: Breaker Pos2 Phase C	OFF
BF2: Function	Disabled
BF2: Mode	3-Pole
BF2: Source	Barra (SRC 1)
BF2: Current Supervision	Yes
BF2: Use Seal-In	Yes
BF2: Three Pole Initiate	OFF
BF2: Block	OFF

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DESCRIPTION: (NONE)
TEXT COLOR

BREAKER FAILURE [GROUP 5] (continued from last page)

BF2: Phase Current Supv Pickup	1.050 pu
BF2: Neutral Current Supv Pickup	1.050 pu
BF2: Use Timer 1	Yes
BF2: Timer 1 Pickup Delay	0.000 s
BF2: Use Timer 2	Yes
BF2: Timer 2 Pickup Delay	0.000 s
BF2: Use Timer 3	Yes
BF2: Timer 3 Pickup Delay	0.000 s
BF2: Breaker Pos1 Phase A/3P	OFF
BF2: Breaker Pos2 Phase A/3P	OFF
BF2: Breaker Test On	OFF
BF2: Phase Current HiSet Pickup	1.050 pu
BF2: Neutral Current HiSet Pickup	1.050 pu
BF2: Phase Current LoSet Pickup	1.050 pu
BF2: Neutral Current LoSet Pickup	1.050 pu
BF2: LoSet Time Delay	0.000 s
BF2: Trip Dropout Delay	0.000 s
BF2: Target	Self-reset
BF2: Events	Disabled
BF2: Phase A Initiate	OFF
BF2: Phase B Initiate	OFF
BF2: Phase C Initiate	OFF
BF2: Breaker Pos1 Phase B	OFF
BF2: Breaker Pos1 Phase C	OFF
BF2: Breaker Pos2 Phase B	OFF
BF2: Breaker Pos2 Phase C	OFF

VOLTAGE ELEMENTS

PHASE UV [GROUP 5]

PHASE UV1: Function	Disabled
PHASE UV1: Signal Source	Barra (SRC 1)
PHASE UV1: Mode	Phase to Ground
PHASE UV1: Pickup	1.000 pu
PHASE UV1: Curve	Definite Time
PHASE UV1: Delay	1.00 s
PHASE UV1: Minimum Voltage	0.100 pu
PHASE UV1: Block	OFF
PHASE UV1: Target	Self-reset
PHASE UV1: Events	Disabled
PHASE UV2: Function	Disabled
PHASE UV2: Signal Source	Barra (SRC 1)
PHASE UV2: Mode	Phase to Ground
PHASE UV2: Pickup	1.000 pu
PHASE UV2: Curve	Definite Time
PHASE UV2: Delay	1.00 s
PHASE UV2: Minimum Voltage	0.100 pu
PHASE UV2: Block	OFF
PHASE UV2: Target	Self-reset
PHASE UV2: Events	Disabled
PHASE UV3: Function	Disabled
PHASE UV3: Signal Source	Barra (SRC 1)
PHASE UV3: Mode	Phase to Ground
PHASE UV3: Pickup	1.000 pu
PHASE UV3: Curve	Definite Time
PHASE UV3: Delay	1.00 s
PHASE UV3: Minimum Voltage	0.100 pu
PHASE UV3: Block	OFF
PHASE UV3: Target	Self-reset
PHASE UV3: Events	Disabled

PHASE OV [GROUP 5]

PHASE OV1: Function	Disabled
PHASE OV1: Source	Barra (SRC 1)
PHASE OV1: Pickup	1.000 pu
PHASE OV1: Delay	1.00 s

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PHASE OV [GROUP 5] (continued from last page)

PHASE OV1: Reset Delay	1.00 s
PHASE OV1: Block	OFF
PHASE OV1: Target	Self-reset
PHASE OV1: Events	Disabled

NEUTRAL OV [GROUP 5]

NEUTRAL OV 1: Function	Disabled
NEUTRAL OV 1: Source	Barra (SRC 1)
NEUTRAL OV 1: Pickup	0.300 pu
NEUTRAL OV 1: Curve	Definite Time
NEUTRAL OV 1: Pickup Delay	1.00 s
NEUTRAL OV 1: Reset Delay	1.00 s
NEUTRAL OV 1: Block	OFF
NEUTRAL OV 1: Target	Self-reset
NEUTRAL OV 1: Events	Disabled
NEUTRAL OV 2: Function	Disabled
NEUTRAL OV 2: Source	Barra (SRC 1)
NEUTRAL OV 2: Pickup	0.300 pu
NEUTRAL OV 2: Curve	Definite Time
NEUTRAL OV 2: Pickup Delay	1.00 s
NEUTRAL OV 2: Reset Delay	1.00 s
NEUTRAL OV 2: Block	OFF
NEUTRAL OV 2: Target	Self-reset
NEUTRAL OV 2: Events	Disabled
NEUTRAL OV 3: Function	Disabled
NEUTRAL OV 3: Source	Barra (SRC 1)
NEUTRAL OV 3: Pickup	0.300 pu
NEUTRAL OV 3: Curve	Definite Time
NEUTRAL OV 3: Pickup Delay	1.00 s
NEUTRAL OV 3: Reset Delay	1.00 s
NEUTRAL OV 3: Block	OFF
NEUTRAL OV 3: Target	Self-reset
NEUTRAL OV 3: Events	Disabled

NEGATIVE SEQUENCE OV [GROUP 5]

NEG SEQ OV1: Function	Disabled
NEG SEQ OV1: Source	Barra (SRC 1)
NEG SEQ OV1: Pickup	0.300 pu
NEG SEQ OV1: Pickup Delay	0.50 s
NEG SEQ OV1: Reset Delay	0.50 s
NEG SEQ OV1: Block	OFF
NEG SEQ OV1: Target	Self-reset
NEG SEQ OV1: Events	Disabled
NEG SEQ OV2: Function	Disabled
NEG SEQ OV2: Source	Barra (SRC 1)
NEG SEQ OV2: Pickup	0.300 pu
NEG SEQ OV2: Pickup Delay	0.50 s
NEG SEQ OV2: Reset Delay	0.50 s
NEG SEQ OV2: Block	OFF
NEG SEQ OV2: Target	Self-reset
NEG SEQ OV2: Events	Disabled
NEG SEQ OV3: Function	Disabled
NEG SEQ OV3: Source	Barra (SRC 1)
NEG SEQ OV3: Pickup	0.300 pu
NEG SEQ OV3: Pickup Delay	0.50 s
NEG SEQ OV3: Reset Delay	0.50 s
NEG SEQ OV3: Block	OFF
NEG SEQ OV3: Target	Self-reset
NEG SEQ OV3: Events	Disabled

AUXILIARY UV [GROUP 5]

AUXILIARY UV 1: Function	Disabled
AUXILIARY UV 1: Source	Barra (SRC 1)
AUXILIARY UV 1: Pickup	0.700 pu
AUXILIARY UV 1: Curve	Definite Time

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VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
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DESCRIPTION: (NONE)
TEXT COLOR

AUXILIARY UV [GROUP 5] (continued from last page)

AUXILIARY UV 1: Delay	1.00 s
AUXILIARY UV 1: Minimum Voltage	0.100 pu
AUXILIARY UV 1: Block	OFF
AUXILIARY UV 1: Target	Self-reset
AUXILIARY UV 1: Events	Disabled

AUXILIARY OV [GROUP 5]

AUXILIARY OV 1: Function	Disabled
AUXILIARY OV 1: Source	Barra (SRC 1)
AUXILIARY OV 1: Pickup	0.300 pu
AUXILIARY OV 1: Pickup Delay	1.00 s
AUXILIARY OV 1: Reset Delay	1.00 s
AUXILIARY OV 1: Block	OFF
AUXILIARY OV 1: Target	Self-reset
AUXILIARY OV 1: Events	Disabled

COMPENSATED OVERVOLTAGE [GROUP 5]

Compensated OV Function	Disabled
Compensated OV Source	Barra (SRC 1)
Compensated OV Zc Mag	2.00 ohm
Compensated OV Zc Ang	90 deg
Compensated OV I_1max	0.20 pu
Compensated OV STG1 PKP	1.300 pu
Compensated OV STG1 Delay	1.00 sec
Compensated OV STG2 PKP	1.300 pu
Compensated OV STG2 Delay	1.00 sec
Compensated OV STG3 PKP	1.300 pu
Compensated OV STG3 Delay	1.00 sec
Compensated OV Block	OFF
Compensated OV Target	Self-reset
Compensated OV Events	Disabled

POWER

SENSITIVE DIRECTIONAL POWER [GROUP 5]

SENS DIR POWER1: Function	Disabled
SENS DIR POWER1: Signal Source	Barra (SRC 1)
SENS DIR POWER1: Sensitive Directional Power RCA	0 deg
SENS DIR POWER1: Sensitive Directional Power Calibration	0.00 deg
SENS DIR POWER1: Stage 1 SMIN	0.100 pu
SENS DIR POWER1: Stage 1 Delay	0.50 s
SENS DIR POWER1: Stage 2 SMIN	0.100 pu
SENS DIR POWER1: Stage 2 Delay	20.00 s
SENS DIR POWER1: Block	OFF
SENS DIR POWER1: Target	Self-reset
SENS DIR POWER1: Events	Disabled
SENS DIR POWER2: Function	Disabled
SENS DIR POWER2: Signal Source	Barra (SRC 1)
SENS DIR POWER2: Sensitive Directional Power RCA	0 deg
SENS DIR POWER2: Sensitive Directional Power Calibration	0.00 deg
SENS DIR POWER2: Stage 1 SMIN	0.100 pu
SENS DIR POWER2: Stage 1 Delay	0.50 s
SENS DIR POWER2: Stage 2 SMIN	0.100 pu
SENS DIR POWER2: Stage 2 Delay	20.00 s
SENS DIR POWER2: Block	OFF
SENS DIR POWER2: Target	Self-reset
SENS DIR POWER2: Events	Disabled

GROUP 6

LINE PICKUP [GROUP 6]

Function	Disabled
Signal Source	Barra (SRC 1)
Phase IOC Line Pickup	1.000 pu
UV Pickup	0.700 pu
Line End Open Pickup Delay	0.150 s
Line End Open Reset Delay	0.090 s

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DESCRIPTION: (NONE)
TEXT COLOR

LINE PICKUP [GROUP 6] (continued from last page)

OV Pickup Delay	0.040 s
Autoreclose Coordination Bypass	Enabled
Autoreclose Coordination Pickup Delay	0.045 s
Autoreclose Coordination Reset Delay	0.005 s
Terminal Open	OFF
AR Accelerate	OFF
Distance Trip	Enabled
Block	OFF
Target	Self-reset
Events	Disabled

DISTANCE

DISTANCE [GROUP 6]

Source	Barra (SRC 1)
Memory Duration	10 cycles
Force Self-Polar	OFF
Force Mem-Polar	OFF

PHASE DISTANCE [GROUP 6]

PHASE DISTANCE Z1: Function	Disabled
PHASE DISTANCE Z1: Direction	Forward
PHASE DISTANCE Z1: Shape	Mho
PHASE DISTANCE Z1: Xfmr Vol Connection	None
PHASE DISTANCE Z1: Xfmr Curr Connection	None
PHASE DISTANCE Z1: Reach	2.00 ohms
PHASE DISTANCE Z1: RCA	85 deg
PHASE DISTANCE Z1: Rev Reach	2.00 ohms
PHASE DISTANCE Z1: Rev Reach RCA	85 deg
PHASE DISTANCE Z1: Comp Limit	90 deg
PHASE DISTANCE Z1: DIR RCA	85 deg
PHASE DISTANCE Z1: DIR Comp Limit	90 deg
PHASE DISTANCE Z1: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z1: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z1: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z1: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z1: Supervision	0.200 pu
PHASE DISTANCE Z1: Volt Level	0.000 pu
PHASE DISTANCE Z1: Delay	0.000 s
PHASE DISTANCE Z1: Block	OFF
PHASE DISTANCE Z1: Target	Self-reset
PHASE DISTANCE Z1: Events	Disabled
PHASE DISTANCE Z2: Function	Disabled
PHASE DISTANCE Z2: Direction	Forward
PHASE DISTANCE Z2: Shape	Mho
PHASE DISTANCE Z2: Xfmr Vol Connection	None
PHASE DISTANCE Z2: Xfmr Curr Connection	None
PHASE DISTANCE Z2: Reach	2.00 ohms
PHASE DISTANCE Z2: RCA	85 deg
PHASE DISTANCE Z2: Rev Reach	2.00 ohms
PHASE DISTANCE Z2: Rev Reach RCA	85 deg
PHASE DISTANCE Z2: Comp Limit	90 deg
PHASE DISTANCE Z2: DIR RCA	85 deg
PHASE DISTANCE Z2: DIR Comp Limit	90 deg
PHASE DISTANCE Z2: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z2: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z2: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z2: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z2: Supervision	0.200 pu
PHASE DISTANCE Z2: Volt Level	0.000 pu
PHASE DISTANCE Z2: Delay	0.000 s
PHASE DISTANCE Z2: Block	OFF
PHASE DISTANCE Z2: Target	Self-reset
PHASE DISTANCE Z2: Events	Disabled
PHASE DISTANCE Z3: Function	Disabled
PHASE DISTANCE Z3: Direction	Forward

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DESCRIPTION: (NONE)
TEXT COLOR

PHASE DISTANCE [GROUP 6] (continued from last page)

PHASE DISTANCE Z3: Shape	Mho
PHASE DISTANCE Z3: Xfmr Vol Connection	None
PHASE DISTANCE Z3: Xfmr Curr Connection	None
PHASE DISTANCE Z3: Reach	2.00 ohms
PHASE DISTANCE Z3: RCA	85 deg
PHASE DISTANCE Z3: Rev Reach	2.00 ohms
PHASE DISTANCE Z3: Rev Reach RCA	85 deg
PHASE DISTANCE Z3: Comp Limit	90 deg
PHASE DISTANCE Z3: DIR RCA	85 deg
PHASE DISTANCE Z3: DIR Comp Limit	90 deg
PHASE DISTANCE Z3: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z3: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z3: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z3: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z3: Supervision	0.200 pu
PHASE DISTANCE Z3: Volt Level	0.000 pu
PHASE DISTANCE Z3: Delay	0.000 s
PHASE DISTANCE Z3: Block	OFF
PHASE DISTANCE Z3: Target	Self-reset
PHASE DISTANCE Z3: Events	Disabled
PHASE DISTANCE Z4: Function	Disabled
PHASE DISTANCE Z4: Direction	Forward
PHASE DISTANCE Z4: Shape	Mho
PHASE DISTANCE Z4: Xfmr Vol Connection	None
PHASE DISTANCE Z4: Xfmr Curr Connection	None
PHASE DISTANCE Z4: Reach	2.00 ohms
PHASE DISTANCE Z4: RCA	85 deg
PHASE DISTANCE Z4: Rev Reach	2.00 ohms
PHASE DISTANCE Z4: Rev Reach RCA	85 deg
PHASE DISTANCE Z4: Comp Limit	90 deg
PHASE DISTANCE Z4: DIR RCA	85 deg
PHASE DISTANCE Z4: DIR Comp Limit	90 deg
PHASE DISTANCE Z4: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z4: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z4: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z4: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z4: Supervision	0.200 pu
PHASE DISTANCE Z4: Volt Level	0.000 pu
PHASE DISTANCE Z4: Delay	0.000 s
PHASE DISTANCE Z4: Block	OFF
PHASE DISTANCE Z4: Target	Self-reset
PHASE DISTANCE Z4: Events	Disabled
PHASE DISTANCE Z5: Function	Disabled
PHASE DISTANCE Z5: Direction	Forward
PHASE DISTANCE Z5: Shape	Mho
PHASE DISTANCE Z5: Xfmr Vol Connection	None
PHASE DISTANCE Z5: Xfmr Curr Connection	None
PHASE DISTANCE Z5: Reach	2.00 ohms
PHASE DISTANCE Z5: RCA	85 deg
PHASE DISTANCE Z5: Rev Reach	2.00 ohms
PHASE DISTANCE Z5: Rev Reach RCA	85 deg
PHASE DISTANCE Z5: Comp Limit	90 deg
PHASE DISTANCE Z5: DIR RCA	85 deg
PHASE DISTANCE Z5: DIR Comp Limit	90 deg
PHASE DISTANCE Z5: Quad Right Blinder	10.00 ohms
PHASE DISTANCE Z5: Quad Right Blinder RCA	85 deg
PHASE DISTANCE Z5: Quad Left Blinder	10.00 ohms
PHASE DISTANCE Z5: Quad Left Blinder RCA	85 deg
PHASE DISTANCE Z5: Supervision	0.200 pu
PHASE DISTANCE Z5: Volt Level	0.000 pu
PHASE DISTANCE Z5: Delay	0.000 s
PHASE DISTANCE Z5: Block	OFF
PHASE DISTANCE Z5: Target	Self-reset
PHASE DISTANCE Z5: Events	Disabled

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DESCRIPTION: (NONE)
TEXT COLOR

GROUND DISTANCE [GROUP 6]	
GROUND DISTANCE Z1: Function	Disabled
GROUND DISTANCE Z1: Direction	Forward
GROUND DISTANCE Z1: Shape	Mho
GROUND DISTANCE Z1: Z0/Z1 Mag	2.70
GROUND DISTANCE Z1: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z1: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z1: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z1: Reach	2.00 ohms
GROUND DISTANCE Z1: RCA	85 deg
GROUND DISTANCE Z1: Rev Reach	2.00 ohms
GROUND DISTANCE Z1: Rev Reach RCA	85 deg
GROUND DISTANCE Z1: POL Current	Zero-seq
GROUND DISTANCE Z1: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z1: Comp Limit	90 deg
GROUND DISTANCE Z1: DIR RCA	85 deg
GROUND DISTANCE Z1: DIR Comp Limit	90 deg
GROUND DISTANCE Z1: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z1: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z1: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z1: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z1: Supervision	0.200 pu
GROUND DISTANCE Z1: Volt Level	0.000 pu
GROUND DISTANCE Z1: Delay	0.000 s
GROUND DISTANCE Z1: Block	OFF
GROUND DISTANCE Z1: Target	Self-reset
GROUND DISTANCE Z1: Events	Disabled
GROUND DISTANCE Z2: Function	Disabled
GROUND DISTANCE Z2: Direction	Forward
GROUND DISTANCE Z2: Shape	Mho
GROUND DISTANCE Z2: Z0/Z1 Mag	2.70
GROUND DISTANCE Z2: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z2: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z2: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z2: Reach	2.00 ohms
GROUND DISTANCE Z2: RCA	85 deg
GROUND DISTANCE Z2: Rev Reach	2.00 ohms
GROUND DISTANCE Z2: Rev Reach RCA	85 deg
GROUND DISTANCE Z2: POL Current	Zero-seq
GROUND DISTANCE Z2: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z2: Comp Limit	90 deg
GROUND DISTANCE Z2: DIR RCA	85 deg
GROUND DISTANCE Z2: DIR Comp Limit	90 deg
GROUND DISTANCE Z2: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z2: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z2: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z2: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z2: Supervision	0.200 pu
GROUND DISTANCE Z2: Volt Level	0.000 pu
GROUND DISTANCE Z2: Delay	0.000 s
GROUND DISTANCE Z2: Block	OFF
GROUND DISTANCE Z2: Target	Self-reset
GROUND DISTANCE Z2: Events	Disabled
GROUND DISTANCE Z3: Function	Disabled
GROUND DISTANCE Z3: Direction	Forward
GROUND DISTANCE Z3: Shape	Mho
GROUND DISTANCE Z3: Z0/Z1 Mag	2.70
GROUND DISTANCE Z3: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z3: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z3: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z3: Reach	2.00 ohms
GROUND DISTANCE Z3: RCA	85 deg
GROUND DISTANCE Z3: Rev Reach	2.00 ohms
GROUND DISTANCE Z3: Rev Reach RCA	85 deg
GROUND DISTANCE Z3: POL Current	Zero-seq
GROUND DISTANCE Z3: Non-Homogen Ang	0.0 deg

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DESCRIPTION: (NONE)
TEXT COLOR

GROUND DISTANCE [GROUP 6] (continued from last page)

GROUND DISTANCE Z3: Comp Limit	90 deg
GROUND DISTANCE Z3: DIR RCA	85 deg
GROUND DISTANCE Z3: DIR Comp Limit	90 deg
GROUND DISTANCE Z3: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z3: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z3: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z3: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z3: Supervision	0.200 pu
GROUND DISTANCE Z3: Volt Level	0.000 pu
GROUND DISTANCE Z3: Delay	0.000 s
GROUND DISTANCE Z3: Block	OFF
GROUND DISTANCE Z3: Target	Self-reset
GROUND DISTANCE Z3: Events	Disabled
GROUND DISTANCE Z4: Function	Disabled
GROUND DISTANCE Z4: Direction	Forward
GROUND DISTANCE Z4: Shape	Mho
GROUND DISTANCE Z4: Z0/Z1 Mag	2.70
GROUND DISTANCE Z4: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z4: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z4: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z4: Reach	2.00 ohms
GROUND DISTANCE Z4: RCA	85 deg
GROUND DISTANCE Z4: Rev Reach	2.00 ohms
GROUND DISTANCE Z4: Rev Reach RCA	85 deg
GROUND DISTANCE Z4: POL Current	Zero-seq
GROUND DISTANCE Z4: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z4: Comp Limit	90 deg
GROUND DISTANCE Z4: DIR RCA	85 deg
GROUND DISTANCE Z4: DIR Comp Limit	90 deg
GROUND DISTANCE Z4: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z4: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z4: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z4: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z4: Supervision	0.200 pu
GROUND DISTANCE Z4: Volt Level	0.000 pu
GROUND DISTANCE Z4: Delay	0.000 s
GROUND DISTANCE Z4: Block	OFF
GROUND DISTANCE Z4: Target	Self-reset
GROUND DISTANCE Z4: Events	Disabled
GROUND DISTANCE Z5: Function	Disabled
GROUND DISTANCE Z5: Direction	Forward
GROUND DISTANCE Z5: Shape	Mho
GROUND DISTANCE Z5: Z0/Z1 Mag	2.70
GROUND DISTANCE Z5: Z0/Z1 Ang	0 deg
GROUND DISTANCE Z5: Z0M/Z1 Mag	0.00
GROUND DISTANCE Z5: Z0M/Z1 Ang	0 deg
GROUND DISTANCE Z5: Reach	2.00 ohms
GROUND DISTANCE Z5: RCA	85 deg
GROUND DISTANCE Z5: Rev Reach	2.00 ohms
GROUND DISTANCE Z5: Rev Reach RCA	85 deg
GROUND DISTANCE Z5: POL Current	Zero-seq
GROUND DISTANCE Z5: Non-Homogen Ang	0.0 deg
GROUND DISTANCE Z5: Comp Limit	90 deg
GROUND DISTANCE Z5: DIR RCA	85 deg
GROUND DISTANCE Z5: DIR Comp Limit	90 deg
GROUND DISTANCE Z5: Quad Right Blinder	10.00 ohms
GROUND DISTANCE Z5: Quad Right Blinder RCA	85 deg
GROUND DISTANCE Z5: Quad Left Blinder	10.00 ohms
GROUND DISTANCE Z5: Quad Left Blinder RCA	85 deg
GROUND DISTANCE Z5: Supervision	0.200 pu
GROUND DISTANCE Z5: Volt Level	0.000 pu
GROUND DISTANCE Z5: Delay	0.000 s
GROUND DISTANCE Z5: Block	OFF
GROUND DISTANCE Z5: Target	Self-reset
GROUND DISTANCE Z5: Events	Disabled

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DESCRIPTION: (NONE)
TEXT COLOR

POWER SWING DETECT [GROUP 6]

Function	Disabled
Source	Barra (SRC 1)
Shape	Mho Shape
Mode	Two Step
Supv	0.600 pu
Fwd Reach	50.00 ohms
Quad Fwd Mid	60.00 ohms
Quad Fwd Out	70.00 ohms
Fwd Rca	75 deg
Rev Reach	50.00 ohms
Quad Rev Mid	60.00 ohms
Quad Rev Out	70.00 ohms
Rev Rca	75 deg
Outer Limit Angle	120 deg
Middle Limit Angle	90 deg
Inner Limit Angle	60 deg
Outer Rgt Bld	100.00 ohms
Outer Lft Bld	100.00 ohms
Midle Rgt Bld	100.00 ohms
Midle Lft Bld	100.00 ohms
Inner Rgt Bld	100.00 ohms
Inner Lft Bld	100.00 ohms
Delay 1 Pickup	0.030 s
Delay 1 Reset	0.050 s
Delay 2 Pickup	0.017 s
Delay 3 Pickup	0.009 s
Delay 4 Pickup	0.017 s
Seal-In Delay	0.400 s
Trip Mode	Delayed
Block	OFF
Target	Self-reset
Event	Disabled

LOAD ENCROACHMENT [GROUP 6]

Function	Disabled
Source	Barra (SRC 1)
Min Volt	0.250 pu
Reach	1.00 ohms
Angle	30 deg
Pickup Delay	0.000 s
Reset Delay	0.000 s
Block	OFF
Target	Self-reset
Events	Disabled

PHASE CURRENT

PHASE TOC [GROUP 6]

PHASE TOC1: Function	Disabled
PHASE TOC1: Signal Source	Barra (SRC 1)
PHASE TOC1: Input	Phasor
PHASE TOC1: Pickup	1.000 pu
PHASE TOC1: Curve	IEEE Mod Inv
PHASE TOC1: TD Multiplier	1.00
PHASE TOC1: Reset	Instantaneous
PHASE TOC1: Voltage Restraint	Disabled
PHASE TOC1: Block A	OFF
PHASE TOC1: Block B	OFF
PHASE TOC1: Block C	OFF
PHASE TOC1: Target	Self-reset
PHASE TOC1: Events	Disabled
PHASE TOC2: Function	Disabled
PHASE TOC2: Signal Source	Barra (SRC 1)
PHASE TOC2: Input	Phasor
PHASE TOC2: Pickup	1.000 pu

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DESCRIPTION: (NONE)
TEXT COLOR

PHASE TOC [GROUP 6] (continued from last page)

PHASE TOC2: Curve	IEEE Mod Inv
PHASE TOC2: TD Multiplier	1.00
PHASE TOC2: Reset	Instantaneous
PHASE TOC2: Voltage Restraint	Disabled
PHASE TOC2: Block A	OFF
PHASE TOC2: Block B	OFF
PHASE TOC2: Block C	OFF
PHASE TOC2: Target	Self-reset
PHASE TOC2: Events	Disabled

PHASE IOC [GROUP 6]

PHASE IOC1: Function	Disabled
PHASE IOC1: Source	Barra (SRC 1)
PHASE IOC1: Pickup	1.000 pu
PHASE IOC1: Delay	0.00 s
PHASE IOC1: Reset Delay	0.00 s
PHASE IOC1: Block A	OFF
PHASE IOC1: Block B	OFF
PHASE IOC1: Block C	OFF
PHASE IOC1: Target	Self-reset
PHASE IOC1: Events	Disabled
PHASE IOC2: Function	Disabled
PHASE IOC2: Source	Barra (SRC 1)
PHASE IOC2: Pickup	1.000 pu
PHASE IOC2: Delay	0.00 s
PHASE IOC2: Reset Delay	0.00 s
PHASE IOC2: Block A	OFF
PHASE IOC2: Block B	OFF
PHASE IOC2: Block C	OFF
PHASE IOC2: Target	Self-reset
PHASE IOC2: Events	Disabled

PHASE DIRECTIONAL [GROUP 6]

PHASE DIR1: Function	Disabled
PHASE DIR1: Source	Barra (SRC 1)
PHASE DIR1: Block	OFF
PHASE DIR1: ECA	30 deg
PHASE DIR1: Pol V Threshold	0.700 pu
PHASE DIR1: Block when V Mem Exp	No
PHASE DIR1: Target	Self-reset
PHASE DIR1: Events	Disabled
PHASE DIR2: Function	Disabled
PHASE DIR2: Source	Barra (SRC 1)
PHASE DIR2: Block	OFF
PHASE DIR2: ECA	30 deg
PHASE DIR2: Pol V Threshold	0.700 pu
PHASE DIR2: Block when V Mem Exp	No
PHASE DIR2: Target	Self-reset
PHASE DIR2: Events	Disabled

NEUTRAL CURRENT

NEUTRAL TOC [GROUP 6]

NEUTRAL TOC1: Function	Disabled
NEUTRAL TOC1: Source	Barra (SRC 1)
NEUTRAL TOC1: Input	Phasor
NEUTRAL TOC1: Pickup	1.000 pu
NEUTRAL TOC1: Curve	IEEE Mod Inv
NEUTRAL TOC1: TD Multiplier	1.00
NEUTRAL TOC1: Reset	Instantaneous
NEUTRAL TOC1: Block	OFF
NEUTRAL TOC1: Target	Self-reset
NEUTRAL TOC1: Events	Disabled
NEUTRAL TOC2: Function	Disabled
NEUTRAL TOC2: Source	Barra (SRC 1)
NEUTRAL TOC2: Input	Phasor

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SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

NEUTRAL TOC [GROUP 6] (continued from last page)

NEUTRAL TOC2: Pickup	1.000 pu
NEUTRAL TOC2: Curve	IEEE Mod Inv
NEUTRAL TOC2: TD Multiplier	1.00
NEUTRAL TOC2: Reset	Instantaneous
NEUTRAL TOC2: Block	OFF
NEUTRAL TOC2: Target	Self-reset
NEUTRAL TOC2: Events	Disabled

NEUTRAL IOC [GROUP 6]

NEUTRAL IOC1: Function	Disabled
NEUTRAL IOC1: Source	Barra (SRC 1)
NEUTRAL IOC1: Pickup	1.000 pu
NEUTRAL IOC1: Delay	0.00 s
NEUTRAL IOC1: Reset Delay	0.00 s
NEUTRAL IOC1: Block	OFF
NEUTRAL IOC1: Target	Self-reset
NEUTRAL IOC1: Events	Disabled
NEUTRAL IOC2: Function	Disabled
NEUTRAL IOC2: Source	Barra (SRC 1)
NEUTRAL IOC2: Pickup	1.000 pu
NEUTRAL IOC2: Delay	0.00 s
NEUTRAL IOC2: Reset Delay	0.00 s
NEUTRAL IOC2: Block	OFF
NEUTRAL IOC2: Target	Self-reset
NEUTRAL IOC2: Events	Disabled

NEUTRAL DIRECTIONAL OC [GROUP 6]

NEUTRAL DIR OC1: Function	Disabled
NEUTRAL DIR OC1: Source	Barra (SRC 1)
NEUTRAL DIR OC1: Polarizing	Voltage
NEUTRAL DIR OC1: Polarizing Volt	Calculated V0
NEUTRAL DIR OC1: Op Current	Calculated 3I0
NEUTRAL DIR OC1: POS SEQ Restraint	0.063
NEUTRAL DIR OC1: Offset	0.00 ohms
NEUTRAL DIR OC1: Forward ECA	75 ° Lag
NEUTRAL DIR OC1: Forward Limit Angle	90 deg
NEUTRAL DIR OC1: Forward Pickup	0.050 pu
NEUTRAL DIR OC1: Reverse Limit Angle	90 deg
NEUTRAL DIR OC1: Reverse Pickup	0.050 pu
NEUTRAL DIR OC1: Block	OFF
NEUTRAL DIR OC1: Target	Self-reset
NEUTRAL DIR OC1: Events	Disabled
NEUTRAL DIR OC2: Function	Disabled
NEUTRAL DIR OC2: Source	Barra (SRC 1)
NEUTRAL DIR OC2: Polarizing	Voltage
NEUTRAL DIR OC2: Polarizing Volt	Calculated V0
NEUTRAL DIR OC2: Op Current	Calculated 3I0
NEUTRAL DIR OC2: POS SEQ Restraint	0.063
NEUTRAL DIR OC2: Offset	0.00 ohms
NEUTRAL DIR OC2: Forward ECA	75 ° Lag
NEUTRAL DIR OC2: Forward Limit Angle	90 deg
NEUTRAL DIR OC2: Forward Pickup	0.050 pu
NEUTRAL DIR OC2: Reverse Limit Angle	90 deg
NEUTRAL DIR OC2: Reverse Pickup	0.050 pu
NEUTRAL DIR OC2: Block	OFF
NEUTRAL DIR OC2: Target	Self-reset
NEUTRAL DIR OC2: Events	Disabled

WATTMETRIC GROUND FAULT [GROUP 6]

WATTMETRIC GND FLT 1: Function	Disabled
WATTMETRIC GND FLT 1: Source	Barra (SRC 1)
WATTMETRIC GND FLT 1: Voltage	Calculated VN
WATTMETRIC GND FLT 1: OV Pickup	0.20 pu
WATTMETRIC GND FLT 1: Current	Calculated IN
WATTMETRIC GND FLT 1: OC Pickup	0.060 pu

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DESCRIPTION: (NONE)
TEXT COLOR

WATTMETRIC GROUND FAULT [GROUP 6] (continued from last page)

WATTMETRIC GND FLT 1: OC Pickup Delay	0.20 s
WATTMETRIC GND FLT 1: Power Pickup	0.100 pu
WATTMETRIC GND FLT 1: Ref Power	0.500 pu
WATTMETRIC GND FLT 1: ECA	0 ° Lag
WATTMETRIC GND FLT 1: Power Pickup Delay	0.20 s
WATTMETRIC GND FLT 1: Curve	Definite Time
WATTMETRIC GND FLT 1: Multiplier	1.00 s
WATTMETRIC GND FLT 1: Block	OFF
WATTMETRIC GND FLT 1: Target	Self-reset
WATTMETRIC GND FLT 1: Events	Disabled
WATTMETRIC GND FLT 2: Function	Disabled
WATTMETRIC GND FLT 2: Source	Barra (SRC 1)
WATTMETRIC GND FLT 2: Voltage	Calculated VN
WATTMETRIC GND FLT 2: OV Pickup	0.20 pu
WATTMETRIC GND FLT 2: Current	Calculated IN
WATTMETRIC GND FLT 2: OC Pickup	0.060 pu
WATTMETRIC GND FLT 2: OC Pickup Delay	0.20 s
WATTMETRIC GND FLT 2: Power Pickup	0.100 pu
WATTMETRIC GND FLT 2: Ref Power	0.500 pu
WATTMETRIC GND FLT 2: ECA	0 ° Lag
WATTMETRIC GND FLT 2: Power Pickup Delay	0.20 s
WATTMETRIC GND FLT 2: Curve	Definite Time
WATTMETRIC GND FLT 2: Multiplier	1.00 s
WATTMETRIC GND FLT 2: Block	OFF
WATTMETRIC GND FLT 2: Target	Self-reset
WATTMETRIC GND FLT 2: Events	Disabled

GROUND CURRENT

GROUND TOC [GROUP 6]

GROUND TOC1: Function	Disabled
GROUND TOC1: Source	Barra (SRC 1)
GROUND TOC1: Input	Phasor
GROUND TOC1: Pickup	1.000 pu
GROUND TOC1: Curve	IEEE Mod Inv
GROUND TOC1: TD Multiplier	1.00
GROUND TOC1: Reset	Instantaneous
GROUND TOC1: Block	OFF
GROUND TOC1: Target	Self-reset
GROUND TOC1: Events	Disabled
GROUND TOC2: Function	Disabled
GROUND TOC2: Source	Barra (SRC 1)
GROUND TOC2: Input	Phasor
GROUND TOC2: Pickup	1.000 pu
GROUND TOC2: Curve	IEEE Mod Inv
GROUND TOC2: TD Multiplier	1.00
GROUND TOC2: Reset	Instantaneous
GROUND TOC2: Block	OFF
GROUND TOC2: Target	Self-reset
GROUND TOC2: Events	Disabled

GROUND IOC [GROUP 6]

GROUND IOC1: Function	Disabled
GROUND IOC1: Source	Barra (SRC 1)
GROUND IOC1: Pickup	1.000 pu
GROUND IOC1: Delay	0.00 s
GROUND IOC1: Reset Delay	0.00 s
GROUND IOC1: Block	OFF
GROUND IOC1: Target	Self-reset
GROUND IOC1: Events	Disabled
GROUND IOC2: Function	Disabled
GROUND IOC2: Source	Barra (SRC 1)
GROUND IOC2: Pickup	1.000 pu
GROUND IOC2: Delay	0.00 s
GROUND IOC2: Reset Delay	0.00 s
GROUND IOC2: Block	OFF

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DESCRIPTION: (NONE)
TEXT COLOR

GROUND IOC [GROUP 6] (continued from last page)

GROUND IOC2: Target	Self-reset
GROUND IOC2: Events	Disabled

NEGATIVE SEQUENCE CURRENT

NEGATIVE SEQUENCE TOC [GROUP 6]

NEGATIVE SEQ TOC1: Function	Disabled
NEGATIVE SEQ TOC1: Source	Barra (SRC 1)
NEGATIVE SEQ TOC1: Pickup	1.000 pu
NEGATIVE SEQ TOC1: Curve	IEEE Mod Inv
NEGATIVE SEQ TOC1: TD Multiplier	1.00
NEGATIVE SEQ TOC1: Reset	Instantaneous
NEGATIVE SEQ TOC1: Block	OFF
NEGATIVE SEQ TOC1: Target	Self-reset
NEGATIVE SEQ TOC1: Events	Disabled
NEGATIVE SEQ TOC2: Function	Disabled
NEGATIVE SEQ TOC2: Source	Barra (SRC 1)
NEGATIVE SEQ TOC2: Pickup	1.000 pu
NEGATIVE SEQ TOC2: Curve	IEEE Mod Inv
NEGATIVE SEQ TOC2: TD Multiplier	1.00
NEGATIVE SEQ TOC2: Reset	Instantaneous
NEGATIVE SEQ TOC2: Block	OFF
NEGATIVE SEQ TOC2: Target	Self-reset
NEGATIVE SEQ TOC2: Events	Disabled

NEGATIVE SEQUENCE IOC [GROUP 6]

NEGATIVE SEQ IOC1: Function	Disabled
NEGATIVE SEQ IOC1: Source	Barra (SRC 1)
NEGATIVE SEQ IOC1: Pickup	1.000 pu
NEGATIVE SEQ IOC1: Delay	0.00 s
NEGATIVE SEQ IOC1: Reset Delay	0.00 s
NEGATIVE SEQ IOC1: Block	OFF
NEGATIVE SEQ IOC1: Target	Self-reset
NEGATIVE SEQ IOC1: Events	Disabled
NEGATIVE SEQ IOC2: Function	Disabled
NEGATIVE SEQ IOC2: Source	Barra (SRC 1)
NEGATIVE SEQ IOC2: Pickup	1.000 pu
NEGATIVE SEQ IOC2: Delay	0.00 s
NEGATIVE SEQ IOC2: Reset Delay	0.00 s
NEGATIVE SEQ IOC2: Block	OFF
NEGATIVE SEQ IOC2: Target	Self-reset
NEGATIVE SEQ IOC2: Events	Disabled

NEGATIVE SEQUENCE DIRECTIONAL OC [GROUP 6]

NEGATIVE SEQ DIR OC1: Function	Disabled
NEGATIVE SEQ DIR OC1: Source	Barra (SRC 1)
NEGATIVE SEQ DIR OC1: Offset	0.00 ohms
NEGATIVE SEQ DIR OC1: Type	Neg Sequence
NEGATIVE SEQ DIR OC1: POS SEQ Restraint	0.063
NEGATIVE SEQ DIR OC1: Forward ECA	75 ° Lag
NEGATIVE SEQ DIR OC1: Forward Limit Angle	90 deg
NEGATIVE SEQ DIR OC1: Forward Pickup	0.050 pu
NEGATIVE SEQ DIR OC1: Reverse Limit Angle	90 deg
NEGATIVE SEQ DIR OC1: Reverse Pickup	0.050 pu
NEGATIVE SEQ DIR OC1: Block	OFF
NEGATIVE SEQ DIR OC1: Target	Self-reset
NEGATIVE SEQ DIR OC1: Events	Disabled
NEGATIVE SEQ DIR OC2: Function	Disabled
NEGATIVE SEQ DIR OC2: Source	Barra (SRC 1)
NEGATIVE SEQ DIR OC2: Offset	0.00 ohms
NEGATIVE SEQ DIR OC2: Type	Neg Sequence
NEGATIVE SEQ DIR OC2: POS SEQ Restraint	0.063
NEGATIVE SEQ DIR OC2: Forward ECA	75 ° Lag
NEGATIVE SEQ DIR OC2: Forward Limit Angle	90 deg
NEGATIVE SEQ DIR OC2: Forward Pickup	0.050 pu
NEGATIVE SEQ DIR OC2: Reverse Limit Angle	90 deg

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DESCRIPTION: (NONE)
TEXT COLOR

NEGATIVE SEQUENCE DIRECTIONAL OC [GROUP 6] (continued from last page)

NEGATIVE SEQ DIR OC2: Reverse Pickup	0.050 pu
NEGATIVE SEQ DIR OC2: Block	OFF
NEGATIVE SEQ DIR OC2: Target	Self-reset
NEGATIVE SEQ DIR OC2: Events	Disabled

BREAKER FAILURE [GROUP 6]

BF1: Function	Disabled
BF1: Mode	3-Pole
BF1: Source	Barra (SRC 1)
BF1: Current Supervision	Yes
BF1: Use Seal-In	Yes
BF1: Three Pole Initiate	OFF
BF1: Block	OFF
BF1: Phase Current Supv Pickup	1.050 pu
BF1: Neutral Current Supv Pickup	1.050 pu
BF1: Use Timer 1	Yes
BF1: Timer 1 Pickup Delay	0.000 s
BF1: Use Timer 2	Yes
BF1: Timer 2 Pickup Delay	0.000 s
BF1: Use Timer 3	Yes
BF1: Timer 3 Pickup Delay	0.000 s
BF1: Breaker Pos1 Phase A/3P	OFF
BF1: Breaker Pos2 Phase A/3P	OFF
BF1: Breaker Test On	OFF
BF1: Phase Current HiSet Pickup	1.050 pu
BF1: Neutral Current HiSet Pickup	1.050 pu
BF1: Phase Current LoSet Pickup	1.050 pu
BF1: Neutral Current LoSet Pickup	1.050 pu
BF1: LoSet Time Delay	0.000 s
BF1: Trip Dropout Delay	0.000 s
BF1: Target	Self-reset
BF1: Events	Disabled
BF1: Phase A Initiate	OFF
BF1: Phase B Initiate	OFF
BF1: Phase C Initiate	OFF
BF1: Breaker Pos1 Phase B	OFF
BF1: Breaker Pos1 Phase C	OFF
BF1: Breaker Pos2 Phase B	OFF
BF1: Breaker Pos2 Phase C	OFF
BF2: Function	Disabled
BF2: Mode	3-Pole
BF2: Source	Barra (SRC 1)
BF2: Current Supervision	Yes
BF2: Use Seal-In	Yes
BF2: Three Pole Initiate	OFF
BF2: Block	OFF
BF2: Phase Current Supv Pickup	1.050 pu
BF2: Neutral Current Supv Pickup	1.050 pu
BF2: Use Timer 1	Yes
BF2: Timer 1 Pickup Delay	0.000 s
BF2: Use Timer 2	Yes
BF2: Timer 2 Pickup Delay	0.000 s
BF2: Use Timer 3	Yes
BF2: Timer 3 Pickup Delay	0.000 s
BF2: Breaker Pos1 Phase A/3P	OFF
BF2: Breaker Pos2 Phase A/3P	OFF
BF2: Breaker Test On	OFF
BF2: Phase Current HiSet Pickup	1.050 pu
BF2: Neutral Current HiSet Pickup	1.050 pu
BF2: Phase Current LoSet Pickup	1.050 pu
BF2: Neutral Current LoSet Pickup	1.050 pu
BF2: LoSet Time Delay	0.000 s
BF2: Trip Dropout Delay	0.000 s
BF2: Target	Self-reset
BF2: Events	Disabled

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DESCRIPTION: (NONE)
TEXT COLOR

BREAKER FAILURE [GROUP 6] (continued from last page)

BF2: Phase A Initiate	OFF
BF2: Phase B Initiate	OFF
BF2: Phase C Initiate	OFF
BF2: Breaker Pos1 Phase B	OFF
BF2: Breaker Pos1 Phase C	OFF
BF2: Breaker Pos2 Phase B	OFF
BF2: Breaker Pos2 Phase C	OFF

VOLTAGE ELEMENTS

PHASE UV [GROUP 6]

PHASE UV1: Function	Disabled
PHASE UV1: Signal Source	Barra (SRC 1)
PHASE UV1: Mode	Phase to Ground
PHASE UV1: Pickup	1.000 pu
PHASE UV1: Curve	Definite Time
PHASE UV1: Delay	1.00 s
PHASE UV1: Minimum Voltage	0.100 pu
PHASE UV1: Block	OFF
PHASE UV1: Target	Self-reset
PHASE UV1: Events	Disabled
PHASE UV2: Function	Disabled
PHASE UV2: Signal Source	Barra (SRC 1)
PHASE UV2: Mode	Phase to Ground
PHASE UV2: Pickup	1.000 pu
PHASE UV2: Curve	Definite Time
PHASE UV2: Delay	1.00 s
PHASE UV2: Minimum Voltage	0.100 pu
PHASE UV2: Block	OFF
PHASE UV2: Target	Self-reset
PHASE UV2: Events	Disabled
PHASE UV3: Function	Disabled
PHASE UV3: Signal Source	Barra (SRC 1)
PHASE UV3: Mode	Phase to Ground
PHASE UV3: Pickup	1.000 pu
PHASE UV3: Curve	Definite Time
PHASE UV3: Delay	1.00 s
PHASE UV3: Minimum Voltage	0.100 pu
PHASE UV3: Block	OFF
PHASE UV3: Target	Self-reset
PHASE UV3: Events	Disabled

PHASE OV [GROUP 6]

PHASE OV1: Function	Disabled
PHASE OV1: Source	Barra (SRC 1)
PHASE OV1: Pickup	1.000 pu
PHASE OV1: Delay	1.00 s
PHASE OV1: Reset Delay	1.00 s
PHASE OV1: Block	OFF
PHASE OV1: Target	Self-reset
PHASE OV1: Events	Disabled

NEUTRAL OV [GROUP 6]

NEUTRAL OV 1: Function	Disabled
NEUTRAL OV 1: Source	Barra (SRC 1)
NEUTRAL OV 1: Pickup	0.300 pu
NEUTRAL OV 1: Curve	Definite Time
NEUTRAL OV 1: Pickup Delay	1.00 s
NEUTRAL OV 1: Reset Delay	1.00 s
NEUTRAL OV 1: Block	OFF
NEUTRAL OV 1: Target	Self-reset
NEUTRAL OV 1: Events	Disabled
NEUTRAL OV 2: Function	Disabled
NEUTRAL OV 2: Source	Barra (SRC 1)
NEUTRAL OV 2: Pickup	0.300 pu
NEUTRAL OV 2: Curve	Definite Time

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TEXT COLOR

NEUTRAL OV [GROUP 6] (continued from last page)

NEUTRAL OV 2: Pickup Delay	1.00 s
NEUTRAL OV 2: Reset Delay	1.00 s
NEUTRAL OV 2: Block	OFF
NEUTRAL OV 2: Target	Self-reset
NEUTRAL OV 2: Events	Disabled
NEUTRAL OV 3: Function	Disabled
NEUTRAL OV 3: Source	Barra (SRC 1)
NEUTRAL OV 3: Pickup	0.300 pu
NEUTRAL OV 3: Curve	Definite Time
NEUTRAL OV 3: Pickup Delay	1.00 s
NEUTRAL OV 3: Reset Delay	1.00 s
NEUTRAL OV 3: Block	OFF
NEUTRAL OV 3: Target	Self-reset
NEUTRAL OV 3: Events	Disabled

NEGATIVE SEQUENCE OV [GROUP 6]

NEG SEQ OV1: Function	Disabled
NEG SEQ OV1: Source	Barra (SRC 1)
NEG SEQ OV1: Pickup	0.300 pu
NEG SEQ OV1: Pickup Delay	0.50 s
NEG SEQ OV1: Reset Delay	0.50 s
NEG SEQ OV1: Block	OFF
NEG SEQ OV1: Target	Self-reset
NEG SEQ OV1: Events	Disabled
NEG SEQ OV2: Function	Disabled
NEG SEQ OV2: Source	Barra (SRC 1)
NEG SEQ OV2: Pickup	0.300 pu
NEG SEQ OV2: Pickup Delay	0.50 s
NEG SEQ OV2: Reset Delay	0.50 s
NEG SEQ OV2: Block	OFF
NEG SEQ OV2: Target	Self-reset
NEG SEQ OV2: Events	Disabled
NEG SEQ OV3: Function	Disabled
NEG SEQ OV3: Source	Barra (SRC 1)
NEG SEQ OV3: Pickup	0.300 pu
NEG SEQ OV3: Pickup Delay	0.50 s
NEG SEQ OV3: Reset Delay	0.50 s
NEG SEQ OV3: Block	OFF
NEG SEQ OV3: Target	Self-reset
NEG SEQ OV3: Events	Disabled

AUXILIARY UV [GROUP 6]

AUXILIARY UV 1: Function	Disabled
AUXILIARY UV 1: Source	Barra (SRC 1)
AUXILIARY UV 1: Pickup	0.700 pu
AUXILIARY UV 1: Curve	Definite Time
AUXILIARY UV 1: Delay	1.00 s
AUXILIARY UV 1: Minimum Voltage	0.100 pu
AUXILIARY UV 1: Block	OFF
AUXILIARY UV 1: Target	Self-reset
AUXILIARY UV 1: Events	Disabled

AUXILIARY OV [GROUP 6]

AUXILIARY OV 1: Function	Disabled
AUXILIARY OV 1: Source	Barra (SRC 1)
AUXILIARY OV 1: Pickup	0.300 pu
AUXILIARY OV 1: Pickup Delay	1.00 s
AUXILIARY OV 1: Reset Delay	1.00 s
AUXILIARY OV 1: Block	OFF
AUXILIARY OV 1: Target	Self-reset
AUXILIARY OV 1: Events	Disabled

COMPENSATED OVERVOLTAGE [GROUP 6]

Compensated OV Function	Disabled
Compensated OV Source	Barra (SRC 1)

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TEXT COLOR

COMPENSATED OVERVOLTAGE [GROUP 6] (continued from last page)

Compensated OV Zc Mag	2.00 ohm
Compensated OV Zc Ang	90 deg
Compensated OV I_1max	0.20 pu
Compensated OV STG1 PKP	1.300 pu
Compensated OV STG1 Delay	1.00 sec
Compensated OV STG2 PKP	1.300 pu
Compensated OV STG2 Delay	1.00 sec
Compensated OV STG3 PKP	1.300 pu
Compensated OV STG3 Delay	1.00 sec
Compensated OV Block	OFF
Compensated OV Target	Self-reset
Compensated OV Events	Disabled

POWER

SENSITIVE DIRECTIONAL POWER [GROUP 6]

SENS DIR POWER1: Function	Disabled
SENS DIR POWER1: Signal Source	Barra (SRC 1)
SENS DIR POWER1: Sensitive Directional Power RCA	0 deg
SENS DIR POWER1: Sensitive Directional Power Calibration	0.00 deg
SENS DIR POWER1: Stage 1 SMIN	0.100 pu
SENS DIR POWER1: Stage 1 Delay	0.50 s
SENS DIR POWER1: Stage 2 SMIN	0.100 pu
SENS DIR POWER1: Stage 2 Delay	20.00 s
SENS DIR POWER1: Block	OFF
SENS DIR POWER1: Target	Self-reset
SENS DIR POWER1: Events	Disabled
SENS DIR POWER2: Function	Disabled
SENS DIR POWER2: Signal Source	Barra (SRC 1)
SENS DIR POWER2: Sensitive Directional Power RCA	0 deg
SENS DIR POWER2: Sensitive Directional Power Calibration	0.00 deg
SENS DIR POWER2: Stage 1 SMIN	0.100 pu
SENS DIR POWER2: Stage 1 Delay	0.50 s
SENS DIR POWER2: Stage 2 SMIN	0.100 pu
SENS DIR POWER2: Stage 2 Delay	20.00 s
SENS DIR POWER2: Block	OFF
SENS DIR POWER2: Target	Self-reset
SENS DIR POWER2: Events	Disabled

CONTROL ELEMENTS

TRIP BUS

Trip Bus 1 Function	Enabled
Trip Bus 1 Block	OFF
Trip Bus 1 Pickup Delay	0.00 s
Trip Bus 1 Reset Delay	0.00 s
Trip Bus 1 Input 1	GND DIST Z1 OP
Trip Bus 1 Input 2	GND DIST Z2 OP
Trip Bus 1 Input 3	GND DIST Z3 OP
Trip Bus 1 Input 4	GND DIST Z4 OP
Trip Bus 1 Input 5	PH DIST Z1 OP
Trip Bus 1 Input 6	PH DIST Z2 OP
Trip Bus 1 Input 7	PH DIST Z3 OP
Trip Bus 1 Input 8	PH DIST Z4 OP
Trip Bus 1 Input 9	NEUTRAL TOC1 OP
Trip Bus 1 Input 10	NEUTRAL TOC2 OP
Trip Bus 1 Input 11	PHASE IOC1 OP
Trip Bus 1 Input 12	NEUTRAL IOC1 OP
Trip Bus 1 Input 13	LINE PICKUP OP
Trip Bus 1 Input 14	HYBRID POTT OP
Trip Bus 1 Input 15	OFF
Trip Bus 1 Input 16	OFF
Trip Bus 1 Latching	Disabled
Trip Bus 1 Reset	OFF
Trip Bus 1 Target	Disabled
Trip Bus 1 Events	Enabled
Trip Bus 2 Function	Disabled

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TRIP BUS (continued from last page)

Trip Bus 2 Block	OFF
Trip Bus 2 Pickup Delay	0.00 s
Trip Bus 2 Reset Delay	0.00 s
Trip Bus 2 Input 1	OFF
Trip Bus 2 Input 2	OFF
Trip Bus 2 Input 3	OFF
Trip Bus 2 Input 4	OFF
Trip Bus 2 Input 5	OFF
Trip Bus 2 Input 6	OFF
Trip Bus 2 Input 7	OFF
Trip Bus 2 Input 8	OFF
Trip Bus 2 Input 9	OFF
Trip Bus 2 Input 10	OFF
Trip Bus 2 Input 11	OFF
Trip Bus 2 Input 12	OFF
Trip Bus 2 Input 13	OFF
Trip Bus 2 Input 14	OFF
Trip Bus 2 Input 15	OFF
Trip Bus 2 Input 16	OFF
Trip Bus 2 Latching	Disabled
Trip Bus 2 Reset	OFF
Trip Bus 2 Target	Disabled
Trip Bus 2 Events	Enabled
Trip Bus 3 Function	Disabled
Trip Bus 3 Block	OFF
Trip Bus 3 Pickup Delay	0.00 s
Trip Bus 3 Reset Delay	0.00 s
Trip Bus 3 Input 1	OFF
Trip Bus 3 Input 2	OFF
Trip Bus 3 Input 3	OFF
Trip Bus 3 Input 4	OFF
Trip Bus 3 Input 5	OFF
Trip Bus 3 Input 6	OFF
Trip Bus 3 Input 7	OFF
Trip Bus 3 Input 8	OFF
Trip Bus 3 Input 9	OFF
Trip Bus 3 Input 10	OFF
Trip Bus 3 Input 11	OFF
Trip Bus 3 Input 12	OFF
Trip Bus 3 Input 13	OFF
Trip Bus 3 Input 14	OFF
Trip Bus 3 Input 15	OFF
Trip Bus 3 Input 16	OFF
Trip Bus 3 Latching	Disabled
Trip Bus 3 Reset	OFF
Trip Bus 3 Target	Self-reset
Trip Bus 3 Events	Disabled
Trip Bus 4 Function	Disabled
Trip Bus 4 Block	OFF
Trip Bus 4 Pickup Delay	0.00 s
Trip Bus 4 Reset Delay	0.00 s
Trip Bus 4 Input 1	OFF
Trip Bus 4 Input 2	OFF
Trip Bus 4 Input 3	OFF
Trip Bus 4 Input 4	OFF
Trip Bus 4 Input 5	OFF
Trip Bus 4 Input 6	OFF
Trip Bus 4 Input 7	OFF
Trip Bus 4 Input 8	OFF
Trip Bus 4 Input 9	OFF
Trip Bus 4 Input 10	OFF
Trip Bus 4 Input 11	OFF
Trip Bus 4 Input 12	OFF
Trip Bus 4 Input 13	OFF
Trip Bus 4 Input 14	OFF

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DESCRIPTION: (NONE)
TEXT COLOR

TRIP BUS (continued from last page)

Trip Bus 4 Input 15	OFF
Trip Bus 4 Input 16	OFF
Trip Bus 4 Latching	Disabled
Trip Bus 4 Reset	OFF
Trip Bus 4 Target	Self-reset
Trip Bus 4 Events	Disabled
Trip Bus 5 Function	Disabled
Trip Bus 5 Block	OFF
Trip Bus 5 Pickup Delay	0.00 s
Trip Bus 5 Reset Delay	0.00 s
Trip Bus 5 Input 1	OFF
Trip Bus 5 Input 2	OFF
Trip Bus 5 Input 3	OFF
Trip Bus 5 Input 4	OFF
Trip Bus 5 Input 5	OFF
Trip Bus 5 Input 6	OFF
Trip Bus 5 Input 7	OFF
Trip Bus 5 Input 8	OFF
Trip Bus 5 Input 9	OFF
Trip Bus 5 Input 10	OFF
Trip Bus 5 Input 11	OFF
Trip Bus 5 Input 12	OFF
Trip Bus 5 Input 13	OFF
Trip Bus 5 Input 14	OFF
Trip Bus 5 Input 15	OFF
Trip Bus 5 Input 16	OFF
Trip Bus 5 Latching	Disabled
Trip Bus 5 Reset	OFF
Trip Bus 5 Target	Self-reset
Trip Bus 5 Events	Disabled
Trip Bus 6 Function	Disabled
Trip Bus 6 Block	OFF
Trip Bus 6 Pickup Delay	0.00 s
Trip Bus 6 Reset Delay	0.00 s
Trip Bus 6 Input 1	OFF
Trip Bus 6 Input 2	OFF
Trip Bus 6 Input 3	OFF
Trip Bus 6 Input 4	OFF
Trip Bus 6 Input 5	OFF
Trip Bus 6 Input 6	OFF
Trip Bus 6 Input 7	OFF
Trip Bus 6 Input 8	OFF
Trip Bus 6 Input 9	OFF
Trip Bus 6 Input 10	OFF
Trip Bus 6 Input 11	OFF
Trip Bus 6 Input 12	OFF
Trip Bus 6 Input 13	OFF
Trip Bus 6 Input 14	OFF
Trip Bus 6 Input 15	OFF
Trip Bus 6 Input 16	OFF
Trip Bus 6 Latching	Disabled
Trip Bus 6 Reset	OFF
Trip Bus 6 Target	Self-reset
Trip Bus 6 Events	Disabled

SETTING GROUPS

Function	Disabled
Block	OFF
Group 2 Activate On	OFF
Group 3 Activate On	OFF
Group 4 Activate On	OFF
Group 5 Activate On	OFF
Group 6 Activate On	OFF
Group 1 Name	
Group 2 Name	

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DESCRIPTION: (NONE)
TEXT COLOR

SETTING GROUPS (continued from last page)

Group 3 Name	
Group 4 Name	
Group 5 Name	
Group 6 Name	
Events	Disabled

SELECTOR SWITCHES

SELECTOR SWITCH 1: Function	Disabled
SELECTOR SWITCH 1: Full Range	7
SELECTOR SWITCH 1: Timeout	5.0 s
SELECTOR SWITCH 1: Step-Up	OFF
SELECTOR SWITCH 1: Step-Up Mode	Time-out
SELECTOR SWITCH 1: Acknowledge	OFF
SELECTOR SWITCH 1: 3Bit A0	OFF
SELECTOR SWITCH 1: 3Bit A1	OFF
SELECTOR SWITCH 1: 3Bit A2	OFF
SELECTOR SWITCH 1: 3Bit Mode	Time-out
SELECTOR SWITCH 1: 3Bit Ack	OFF
SELECTOR SWITCH 1: Power-Up Mode	Restore
SELECTOR SWITCH 1: Targets	Self-reset
SELECTOR SWITCH 1: Events	Disabled
SELECTOR SWITCH 2: Function	Disabled
SELECTOR SWITCH 2: Full Range	7
SELECTOR SWITCH 2: Timeout	5.0 s
SELECTOR SWITCH 2: Step-Up	OFF
SELECTOR SWITCH 2: Step-Up Mode	Time-out
SELECTOR SWITCH 2: Acknowledge	OFF
SELECTOR SWITCH 2: 3Bit A0	OFF
SELECTOR SWITCH 2: 3Bit A1	OFF
SELECTOR SWITCH 2: 3Bit A2	OFF
SELECTOR SWITCH 2: 3Bit Mode	Time-out
SELECTOR SWITCH 2: 3Bit Ack	OFF
SELECTOR SWITCH 2: Power-Up Mode	Restore
SELECTOR SWITCH 2: Targets	Self-reset
SELECTOR SWITCH 2: Events	Disabled

TRIP OUTPUT

Trip Mode	Disabled
Trip 3-Pole Input1	TRIPBUS 1 OP
Trip 3-Pole Input2	TRIPBUS 2 OP
Trip 3-Pole Input3	NEUTRAL TOC1 OP
Trip 3-Pole Input4	TRIP 85A On (VO4)
Trip 3-Pole Input5	OFF
Trip 3-Pole Input6	OFF
Trip 1-Pole Input1	OFF
Trip 1-Pole Input2	OFF
Trip 1-Pole Input3	OFF
Trip 1-Pole Input4	OFF
Trip 1-Pole Input5	OFF
Trip 1-Pole Input6	OFF
Trip Reclose Input1	OFF
Trip Reclose Input2	OFF
Trip Reclose Input3	OFF
Trip Reclose Input4	OFF
Trip Reclose Input5	OFF
Trip Reclose Input6	OFF
Trip Seal in Delay	0.000 s
Trip Reset	Pole Curr OR Custom
Start Timer Z2Ph In1	GND DIST Z2 PKP
Start Timer Z2Ph In2	OFF
Start Timer Z2Gr In1	PH DIST Z2 PKP
Start Timer Z2Gr In2	OFF
BKR Phase A Open	52H3 Abierto On(H1c)
BKR Phase B Open	52H3 Abierto On(H1c)
BKR Phase C Open	52H3 Abierto On(H1c)

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DESCRIPTION: (NONE)
TEXT COLOR

TRIP OUTPUT (continued from last page)

Trip Force 3-Pole	OFF
Trip Pilot Priority	0.000 s
Reverse Fault	OFF
Trip Delay On Evolving Faults	0.000 s
Trip Events	Enabled

UNDERFREQUENCY

UNDERFREQUENCY 1: Function	Disabled
UNDERFREQUENCY 1: Block	OFF
UNDERFREQUENCY 1: Source	Barra (SRC 1)
UNDERFREQUENCY 1: Min Volt/Amp	0.10 pu
UNDERFREQUENCY 1: Pickup	59.50 Hz
UNDERFREQUENCY 1: Pickup Delay	2.000 s
UNDERFREQUENCY 1: Reset Delay	2.000 s
UNDERFREQUENCY 1: Target	Self-reset
UNDERFREQUENCY 1: Events	Disabled
UNDERFREQUENCY 2: Function	Disabled
UNDERFREQUENCY 2: Block	OFF
UNDERFREQUENCY 2: Source	Barra (SRC 1)
UNDERFREQUENCY 2: Min Volt/Amp	0.10 pu
UNDERFREQUENCY 2: Pickup	59.50 Hz
UNDERFREQUENCY 2: Pickup Delay	2.000 s
UNDERFREQUENCY 2: Reset Delay	2.000 s
UNDERFREQUENCY 2: Target	Self-reset
UNDERFREQUENCY 2: Events	Disabled
UNDERFREQUENCY 3: Function	Disabled
UNDERFREQUENCY 3: Block	OFF
UNDERFREQUENCY 3: Source	Barra (SRC 1)
UNDERFREQUENCY 3: Min Volt/Amp	0.10 pu
UNDERFREQUENCY 3: Pickup	59.50 Hz
UNDERFREQUENCY 3: Pickup Delay	2.000 s
UNDERFREQUENCY 3: Reset Delay	2.000 s
UNDERFREQUENCY 3: Target	Self-reset
UNDERFREQUENCY 3: Events	Disabled
UNDERFREQUENCY 4: Function	Disabled
UNDERFREQUENCY 4: Block	OFF
UNDERFREQUENCY 4: Source	Barra (SRC 1)
UNDERFREQUENCY 4: Min Volt/Amp	0.10 pu
UNDERFREQUENCY 4: Pickup	59.50 Hz
UNDERFREQUENCY 4: Pickup Delay	2.000 s
UNDERFREQUENCY 4: Reset Delay	2.000 s
UNDERFREQUENCY 4: Target	Self-reset
UNDERFREQUENCY 4: Events	Disabled
UNDERFREQUENCY 5: Function	Disabled
UNDERFREQUENCY 5: Block	OFF
UNDERFREQUENCY 5: Source	Barra (SRC 1)
UNDERFREQUENCY 5: Min Volt/Amp	0.10 pu
UNDERFREQUENCY 5: Pickup	59.50 Hz
UNDERFREQUENCY 5: Pickup Delay	2.000 s
UNDERFREQUENCY 5: Reset Delay	2.000 s
UNDERFREQUENCY 5: Target	Self-reset
UNDERFREQUENCY 5: Events	Disabled
UNDERFREQUENCY 6: Function	Disabled
UNDERFREQUENCY 6: Block	OFF
UNDERFREQUENCY 6: Source	Barra (SRC 1)
UNDERFREQUENCY 6: Min Volt/Amp	0.10 pu
UNDERFREQUENCY 6: Pickup	59.50 Hz
UNDERFREQUENCY 6: Pickup Delay	2.000 s
UNDERFREQUENCY 6: Reset Delay	2.000 s
UNDERFREQUENCY 6: Target	Self-reset
UNDERFREQUENCY 6: Events	Disabled

OVERFREQUENCY

OVERFREQUENCY 1: Function	Disabled
OVERFREQUENCY 1: Block	OFF

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DESCRIPTION: (NONE)
TEXT COLOR

OVERFREQUENCY (continued from last page)

OVERFREQUENCY 1: Source	Barra (SRC 1)
OVERFREQUENCY 1: Pickup	60.50 Hz
OVERFREQUENCY 1: Pickup Delay	0.500 s
OVERFREQUENCY 1: Reset Delay	0.500 s
OVERFREQUENCY 1: Target	Self-reset
OVERFREQUENCY 1: Events	Disabled
OVERFREQUENCY 2: Function	Disabled
OVERFREQUENCY 2: Block	OFF
OVERFREQUENCY 2: Source	Barra (SRC 1)
OVERFREQUENCY 2: Pickup	60.50 Hz
OVERFREQUENCY 2: Pickup Delay	0.500 s
OVERFREQUENCY 2: Reset Delay	0.500 s
OVERFREQUENCY 2: Target	Self-reset
OVERFREQUENCY 2: Events	Disabled
OVERFREQUENCY 3: Function	Disabled
OVERFREQUENCY 3: Block	OFF
OVERFREQUENCY 3: Source	Barra (SRC 1)
OVERFREQUENCY 3: Pickup	60.50 Hz
OVERFREQUENCY 3: Pickup Delay	0.500 s
OVERFREQUENCY 3: Reset Delay	0.500 s
OVERFREQUENCY 3: Target	Self-reset
OVERFREQUENCY 3: Events	Disabled
OVERFREQUENCY 4: Function	Disabled
OVERFREQUENCY 4: Block	OFF
OVERFREQUENCY 4: Source	Barra (SRC 1)
OVERFREQUENCY 4: Pickup	60.50 Hz
OVERFREQUENCY 4: Pickup Delay	0.500 s
OVERFREQUENCY 4: Reset Delay	0.500 s
OVERFREQUENCY 4: Target	Self-reset
OVERFREQUENCY 4: Events	Disabled

SYNCHROCHECK

SYNCHROCHECK1: Function	Disabled
SYNCHROCHECK1: Block	OFF
SYNCHROCHECK1: V1 Source	Barra (SRC 1)
SYNCHROCHECK1: V2 Source	Linea (SRC 2)
SYNCHROCHECK1: Max Volt Diff	5500 V
SYNCHROCHECK1: Max Angle Diff	10 deg
SYNCHROCHECK1: Max Freq Diff	0.50 Hz
SYNCHROCHECK1: Freq Hysteresis	0.00 Hz
SYNCHROCHECK1: Dead Source Select	DV1 or DV2
SYNCHROCHECK1: Dead V1 Max Volt	0.30 pu
SYNCHROCHECK1: Dead V2 Max Volt	0.30 pu
SYNCHROCHECK1: Live V1 Min Volt	0.70 pu
SYNCHROCHECK1: Live V2 Min Volt	0.70 pu
SYNCHROCHECK1: Target	Self-reset
SYNCHROCHECK1: Events	Enabled
SYNCHROCHECK2: Function	Disabled
SYNCHROCHECK2: Block	OFF
SYNCHROCHECK2: V1 Source	Barra (SRC 1)
SYNCHROCHECK2: V2 Source	Linea (SRC 2)
SYNCHROCHECK2: Max Volt Diff	10000 V
SYNCHROCHECK2: Max Angle Diff	30 deg
SYNCHROCHECK2: Max Freq Diff	1.00 Hz
SYNCHROCHECK2: Freq Hysteresis	0.06 Hz
SYNCHROCHECK2: Dead Source Select	LV1 and DV2
SYNCHROCHECK2: Dead V1 Max Volt	0.30 pu
SYNCHROCHECK2: Dead V2 Max Volt	0.30 pu
SYNCHROCHECK2: Live V1 Min Volt	0.70 pu
SYNCHROCHECK2: Live V2 Min Volt	0.70 pu
SYNCHROCHECK2: Target	Self-reset
SYNCHROCHECK2: Events	Disabled

DIGITAL ELEMENTS

Digital Element 1 Function	Disabled

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DIGITAL ELEMENTS (continued from last page)

Digital Element 1 Name	Dig Element 1
Digital Element 1 Input	OFF
Digital Element 1 Pickup Delay	0.000 s
Digital Element 1 Reset Delay	0.000 s
Digital Element 1 Pickup Led	Enabled
Digital Element 1 Block	OFF
Digital Element 1 Target	Self-reset
Digital Element 1 Events	Disabled
Digital Element 2 Function	Disabled
Digital Element 2 Name	Dig Element 2
Digital Element 2 Input	OFF
Digital Element 2 Pickup Delay	0.000 s
Digital Element 2 Reset Delay	0.000 s
Digital Element 2 Pickup Led	Enabled
Digital Element 2 Block	OFF
Digital Element 2 Target	Self-reset
Digital Element 2 Events	Disabled
Digital Element 3 Function	Disabled
Digital Element 3 Name	Dig Element 3
Digital Element 3 Input	OFF
Digital Element 3 Pickup Delay	0.000 s
Digital Element 3 Reset Delay	0.000 s
Digital Element 3 Pickup Led	Enabled
Digital Element 3 Block	OFF
Digital Element 3 Target	Self-reset
Digital Element 3 Events	Disabled
Digital Element 4 Function	Disabled
Digital Element 4 Name	Dig Element 4
Digital Element 4 Input	OFF
Digital Element 4 Pickup Delay	0.000 s
Digital Element 4 Reset Delay	0.000 s
Digital Element 4 Pickup Led	Enabled
Digital Element 4 Block	OFF
Digital Element 4 Target	Self-reset
Digital Element 4 Events	Disabled
Digital Element 5 Function	Disabled
Digital Element 5 Name	Dig Element 5
Digital Element 5 Input	OFF
Digital Element 5 Pickup Delay	0.000 s
Digital Element 5 Reset Delay	0.000 s
Digital Element 5 Pickup Led	Enabled
Digital Element 5 Block	OFF
Digital Element 5 Target	Self-reset
Digital Element 5 Events	Disabled
Digital Element 6 Function	Disabled
Digital Element 6 Name	Dig Element 6
Digital Element 6 Input	OFF
Digital Element 6 Pickup Delay	0.000 s
Digital Element 6 Reset Delay	0.000 s
Digital Element 6 Pickup Led	Enabled
Digital Element 6 Block	OFF
Digital Element 6 Target	Self-reset
Digital Element 6 Events	Disabled
Digital Element 7 Function	Disabled
Digital Element 7 Name	Dig Element 7
Digital Element 7 Input	OFF
Digital Element 7 Pickup Delay	0.000 s
Digital Element 7 Reset Delay	0.000 s
Digital Element 7 Pickup Led	Enabled
Digital Element 7 Block	OFF
Digital Element 7 Target	Self-reset
Digital Element 7 Events	Disabled
Digital Element 8 Function	Disabled
Digital Element 8 Name	Dig Element 8
Digital Element 8 Input	OFF

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DESCRIPTION: (NONE)
TEXT COLOR

DIGITAL ELEMENTS (continued from last page)

Digital Element 8 Pickup Delay	0.000 s
Digital Element 8 Reset Delay	0.000 s
Digital Element 8 Pickup Led	Enabled
Digital Element 8 Block	OFF
Digital Element 8 Target	Self-reset
Digital Element 8 Events	Disabled
Digital Element 9 Function	Disabled
Digital Element 9 Name	Dig Element 9
Digital Element 9 Input	OFF
Digital Element 9 Pickup Delay	0.000 s
Digital Element 9 Reset Delay	0.000 s
Digital Element 9 Pickup Led	Enabled
Digital Element 9 Block	OFF
Digital Element 9 Target	Self-reset
Digital Element 9 Events	Disabled
Digital Element 10 Function	Disabled
Digital Element 10 Name	Dig Element 10
Digital Element 10 Input	OFF
Digital Element 10 Pickup Delay	0.000 s
Digital Element 10 Reset Delay	0.000 s
Digital Element 10 Pickup Led	Enabled
Digital Element 10 Block	OFF
Digital Element 10 Target	Self-reset
Digital Element 10 Events	Disabled
Digital Element 11 Function	Disabled
Digital Element 11 Name	Dig Element 11
Digital Element 11 Input	OFF
Digital Element 11 Pickup Delay	0.000 s
Digital Element 11 Reset Delay	0.000 s
Digital Element 11 Pickup Led	Enabled
Digital Element 11 Block	OFF
Digital Element 11 Target	Self-reset
Digital Element 11 Events	Disabled
Digital Element 12 Function	Disabled
Digital Element 12 Name	Dig Element 12
Digital Element 12 Input	OFF
Digital Element 12 Pickup Delay	0.000 s
Digital Element 12 Reset Delay	0.000 s
Digital Element 12 Pickup Led	Enabled
Digital Element 12 Block	OFF
Digital Element 12 Target	Self-reset
Digital Element 12 Events	Disabled
Digital Element 13 Function	Disabled
Digital Element 13 Name	Dig Element 13
Digital Element 13 Input	OFF
Digital Element 13 Pickup Delay	0.000 s
Digital Element 13 Reset Delay	0.000 s
Digital Element 13 Pickup Led	Enabled
Digital Element 13 Block	OFF
Digital Element 13 Target	Self-reset
Digital Element 13 Events	Disabled
Digital Element 14 Function	Disabled
Digital Element 14 Name	Dig Element 14
Digital Element 14 Input	OFF
Digital Element 14 Pickup Delay	0.000 s
Digital Element 14 Reset Delay	0.000 s
Digital Element 14 Pickup Led	Enabled
Digital Element 14 Block	OFF
Digital Element 14 Target	Self-reset
Digital Element 14 Events	Disabled
Digital Element 15 Function	Disabled
Digital Element 15 Name	Dig Element 15
Digital Element 15 Input	OFF
Digital Element 15 Pickup Delay	0.000 s
Digital Element 15 Reset Delay	0.000 s

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DESCRIPTION: (NONE)
TEXT COLOR

DIGITAL ELEMENTS (continued from last page)

Digital Element 15 Pickup Led	Enabled
Digital Element 15 Block	OFF
Digital Element 15 Target	Self-reset
Digital Element 15 Events	Disabled
Digital Element 16 Function	Disabled
Digital Element 16 Name	Dig Element 16
Digital Element 16 Input	OFF
Digital Element 16 Pickup Delay	0.000 s
Digital Element 16 Reset Delay	0.000 s
Digital Element 16 Pickup Led	Enabled
Digital Element 16 Block	OFF
Digital Element 16 Target	Self-reset
Digital Element 16 Events	Disabled
Digital Element 17 Function	Disabled
Digital Element 17 Name	Dig Element 17
Digital Element 17 Input	OFF
Digital Element 17 Pickup Delay	0.000 s
Digital Element 17 Reset Delay	0.000 s
Digital Element 17 Pickup Led	Enabled
Digital Element 17 Block	OFF
Digital Element 17 Target	Self-reset
Digital Element 17 Events	Disabled
Digital Element 18 Function	Disabled
Digital Element 18 Name	Dig Element 18
Digital Element 18 Input	OFF
Digital Element 18 Pickup Delay	0.000 s
Digital Element 18 Reset Delay	0.000 s
Digital Element 18 Pickup Led	Enabled
Digital Element 18 Block	OFF
Digital Element 18 Target	Self-reset
Digital Element 18 Events	Disabled
Digital Element 19 Function	Disabled
Digital Element 19 Name	Dig Element 19
Digital Element 19 Input	OFF
Digital Element 19 Pickup Delay	0.000 s
Digital Element 19 Reset Delay	0.000 s
Digital Element 19 Pickup Led	Enabled
Digital Element 19 Block	OFF
Digital Element 19 Target	Self-reset
Digital Element 19 Events	Disabled
Digital Element 20 Function	Disabled
Digital Element 20 Name	Dig Element 20
Digital Element 20 Input	OFF
Digital Element 20 Pickup Delay	0.000 s
Digital Element 20 Reset Delay	0.000 s
Digital Element 20 Pickup Led	Enabled
Digital Element 20 Block	OFF
Digital Element 20 Target	Self-reset
Digital Element 20 Events	Disabled
Digital Element 21 Function	Disabled
Digital Element 21 Name	Dig Element 21
Digital Element 21 Input	OFF
Digital Element 21 Pickup Delay	0.000 s
Digital Element 21 Reset Delay	0.000 s
Digital Element 21 Pickup Led	Enabled
Digital Element 21 Block	OFF
Digital Element 21 Target	Self-reset
Digital Element 21 Events	Disabled
Digital Element 22 Function	Disabled
Digital Element 22 Name	Dig Element 22
Digital Element 22 Input	OFF
Digital Element 22 Pickup Delay	0.000 s
Digital Element 22 Reset Delay	0.000 s
Digital Element 22 Pickup Led	Enabled
Digital Element 22 Block	OFF

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DESCRIPTION: (NONE)
TEXT COLOR

DIGITAL ELEMENTS (continued from last page)

Digital Element 22 Target	Self-reset
Digital Element 22 Events	Disabled
Digital Element 23 Function	Disabled
Digital Element 23 Name	Dig Element 23
Digital Element 23 Input	OFF
Digital Element 23 Pickup Delay	0.000 s
Digital Element 23 Reset Delay	0.000 s
Digital Element 23 Pickup Led	Enabled
Digital Element 23 Block	OFF
Digital Element 23 Target	Self-reset
Digital Element 23 Events	Disabled
Digital Element 24 Function	Disabled
Digital Element 24 Name	Dig Element 24
Digital Element 24 Input	OFF
Digital Element 24 Pickup Delay	0.000 s
Digital Element 24 Reset Delay	0.000 s
Digital Element 24 Pickup Led	Enabled
Digital Element 24 Block	OFF
Digital Element 24 Target	Self-reset
Digital Element 24 Events	Disabled
Digital Element 25 Function	Disabled
Digital Element 25 Name	Dig Element 25
Digital Element 25 Input	OFF
Digital Element 25 Pickup Delay	0.000 s
Digital Element 25 Reset Delay	0.000 s
Digital Element 25 Pickup Led	Enabled
Digital Element 25 Block	OFF
Digital Element 25 Target	Self-reset
Digital Element 25 Events	Disabled
Digital Element 26 Function	Disabled
Digital Element 26 Name	Dig Element 26
Digital Element 26 Input	OFF
Digital Element 26 Pickup Delay	0.000 s
Digital Element 26 Reset Delay	0.000 s
Digital Element 26 Pickup Led	Enabled
Digital Element 26 Block	OFF
Digital Element 26 Target	Self-reset
Digital Element 26 Events	Disabled
Digital Element 27 Function	Disabled
Digital Element 27 Name	Dig Element 27
Digital Element 27 Input	OFF
Digital Element 27 Pickup Delay	0.000 s
Digital Element 27 Reset Delay	0.000 s
Digital Element 27 Pickup Led	Enabled
Digital Element 27 Block	OFF
Digital Element 27 Target	Self-reset
Digital Element 27 Events	Disabled
Digital Element 28 Function	Disabled
Digital Element 28 Name	Dig Element 28
Digital Element 28 Input	OFF
Digital Element 28 Pickup Delay	0.000 s
Digital Element 28 Reset Delay	0.000 s
Digital Element 28 Pickup Led	Enabled
Digital Element 28 Block	OFF
Digital Element 28 Target	Self-reset
Digital Element 28 Events	Disabled
Digital Element 29 Function	Disabled
Digital Element 29 Name	Dig Element 29
Digital Element 29 Input	OFF
Digital Element 29 Pickup Delay	0.000 s
Digital Element 29 Reset Delay	0.000 s
Digital Element 29 Pickup Led	Enabled
Digital Element 29 Block	OFF
Digital Element 29 Target	Self-reset
Digital Element 29 Events	Disabled

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DESCRIPTION: (NONE)
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DIGITAL ELEMENTS (continued from last page)

Digital Element 30 Function	Disabled
Digital Element 30 Name	Dig Element 30
Digital Element 30 Input	OFF
Digital Element 30 Pickup Delay	0.000 s
Digital Element 30 Reset Delay	0.000 s
Digital Element 30 Pickup Led	Enabled
Digital Element 30 Block	OFF
Digital Element 30 Target	Self-reset
Digital Element 30 Events	Disabled
Digital Element 31 Function	Disabled
Digital Element 31 Name	Dig Element 31
Digital Element 31 Input	OFF
Digital Element 31 Pickup Delay	0.000 s
Digital Element 31 Reset Delay	0.000 s
Digital Element 31 Pickup Led	Enabled
Digital Element 31 Block	OFF
Digital Element 31 Target	Self-reset
Digital Element 31 Events	Disabled
Digital Element 32 Function	Disabled
Digital Element 32 Name	Dig Element 32
Digital Element 32 Input	OFF
Digital Element 32 Pickup Delay	0.000 s
Digital Element 32 Reset Delay	0.000 s
Digital Element 32 Pickup Led	Enabled
Digital Element 32 Block	OFF
Digital Element 32 Target	Self-reset
Digital Element 32 Events	Disabled
Digital Element 33 Function	Disabled
Digital Element 33 Name	Dig Element 33
Digital Element 33 Input	OFF
Digital Element 33 Pickup Delay	0.000 s
Digital Element 33 Reset Delay	0.000 s
Digital Element 33 Pickup Led	Enabled
Digital Element 33 Block	OFF
Digital Element 33 Target	Self-reset
Digital Element 33 Events	Disabled
Digital Element 34 Function	Disabled
Digital Element 34 Name	Dig Element 34
Digital Element 34 Input	OFF
Digital Element 34 Pickup Delay	0.000 s
Digital Element 34 Reset Delay	0.000 s
Digital Element 34 Pickup Led	Enabled
Digital Element 34 Block	OFF
Digital Element 34 Target	Self-reset
Digital Element 34 Events	Disabled
Digital Element 35 Function	Disabled
Digital Element 35 Name	Dig Element 35
Digital Element 35 Input	OFF
Digital Element 35 Pickup Delay	0.000 s
Digital Element 35 Reset Delay	0.000 s
Digital Element 35 Pickup Led	Enabled
Digital Element 35 Block	OFF
Digital Element 35 Target	Self-reset
Digital Element 35 Events	Disabled
Digital Element 36 Function	Disabled
Digital Element 36 Name	Dig Element 36
Digital Element 36 Input	OFF
Digital Element 36 Pickup Delay	0.000 s
Digital Element 36 Reset Delay	0.000 s
Digital Element 36 Pickup Led	Enabled
Digital Element 36 Block	OFF
Digital Element 36 Target	Self-reset
Digital Element 36 Events	Disabled
Digital Element 37 Function	Disabled
Digital Element 37 Name	Dig Element 37

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VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

DIGITAL ELEMENTS (continued from last page)

Digital Element 37 Input	OFF
Digital Element 37 Pickup Delay	0.000 s
Digital Element 37 Reset Delay	0.000 s
Digital Element 37 Pickup Led	Enabled
Digital Element 37 Block	OFF
Digital Element 37 Target	Self-reset
Digital Element 37 Events	Disabled
Digital Element 38 Function	Disabled
Digital Element 38 Name	Dig Element 38
Digital Element 38 Input	OFF
Digital Element 38 Pickup Delay	0.000 s
Digital Element 38 Reset Delay	0.000 s
Digital Element 38 Pickup Led	Enabled
Digital Element 38 Block	OFF
Digital Element 38 Target	Self-reset
Digital Element 38 Events	Disabled
Digital Element 39 Function	Disabled
Digital Element 39 Name	Dig Element 39
Digital Element 39 Input	OFF
Digital Element 39 Pickup Delay	0.000 s
Digital Element 39 Reset Delay	0.000 s
Digital Element 39 Pickup Led	Enabled
Digital Element 39 Block	OFF
Digital Element 39 Target	Self-reset
Digital Element 39 Events	Disabled
Digital Element 40 Function	Disabled
Digital Element 40 Name	Dig Element 40
Digital Element 40 Input	OFF
Digital Element 40 Pickup Delay	0.000 s
Digital Element 40 Reset Delay	0.000 s
Digital Element 40 Pickup Led	Enabled
Digital Element 40 Block	OFF
Digital Element 40 Target	Self-reset
Digital Element 40 Events	Disabled
Digital Element 41 Function	Disabled
Digital Element 41 Name	Dig Element 41
Digital Element 41 Input	OFF
Digital Element 41 Pickup Delay	0.000 s
Digital Element 41 Reset Delay	0.000 s
Digital Element 41 Pickup Led	Enabled
Digital Element 41 Block	OFF
Digital Element 41 Target	Self-reset
Digital Element 41 Events	Disabled
Digital Element 42 Function	Disabled
Digital Element 42 Name	Dig Element 42
Digital Element 42 Input	OFF
Digital Element 42 Pickup Delay	0.000 s
Digital Element 42 Reset Delay	0.000 s
Digital Element 42 Pickup Led	Enabled
Digital Element 42 Block	OFF
Digital Element 42 Target	Self-reset
Digital Element 42 Events	Disabled
Digital Element 43 Function	Disabled
Digital Element 43 Name	Dig Element 43
Digital Element 43 Input	OFF
Digital Element 43 Pickup Delay	0.000 s
Digital Element 43 Reset Delay	0.000 s
Digital Element 43 Pickup Led	Enabled
Digital Element 43 Block	OFF
Digital Element 43 Target	Self-reset
Digital Element 43 Events	Disabled
Digital Element 44 Function	Disabled
Digital Element 44 Name	Dig Element 44
Digital Element 44 Input	OFF
Digital Element 44 Pickup Delay	0.000 s

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DESCRIPTION: (NONE)
TEXT COLOR

DIGITAL ELEMENTS (continued from last page)

Digital Element 44 Reset Delay	0.000 s
Digital Element 44 Pickup Led	Enabled
Digital Element 44 Block	OFF
Digital Element 44 Target	Self-reset
Digital Element 44 Events	Disabled
Digital Element 45 Function	Disabled
Digital Element 45 Name	Dig Element 45
Digital Element 45 Input	OFF
Digital Element 45 Pickup Delay	0.000 s
Digital Element 45 Reset Delay	0.000 s
Digital Element 45 Pickup Led	Enabled
Digital Element 45 Block	OFF
Digital Element 45 Target	Self-reset
Digital Element 45 Events	Disabled
Digital Element 46 Function	Disabled
Digital Element 46 Name	Dig Element 46
Digital Element 46 Input	OFF
Digital Element 46 Pickup Delay	0.000 s
Digital Element 46 Reset Delay	0.000 s
Digital Element 46 Pickup Led	Enabled
Digital Element 46 Block	OFF
Digital Element 46 Target	Self-reset
Digital Element 46 Events	Disabled
Digital Element 47 Function	Disabled
Digital Element 47 Name	Dig Element 47
Digital Element 47 Input	OFF
Digital Element 47 Pickup Delay	0.000 s
Digital Element 47 Reset Delay	0.000 s
Digital Element 47 Pickup Led	Enabled
Digital Element 47 Block	OFF
Digital Element 47 Target	Self-reset
Digital Element 47 Events	Disabled
Digital Element 48 Function	Disabled
Digital Element 48 Name	Dig Element 48
Digital Element 48 Input	OFF
Digital Element 48 Pickup Delay	0.000 s
Digital Element 48 Reset Delay	0.000 s
Digital Element 48 Pickup Led	Enabled
Digital Element 48 Block	OFF
Digital Element 48 Target	Self-reset
Digital Element 48 Events	Disabled

DIGITAL COUNTERS

Digital Counter 1 Function	Disabled
Digital Counter 1 Name	Counter 1
Digital Counter 1 Units	
Digital Counter 1 Preset	0
Digital Counter 1 Compare	0
Digital Counter 1 Up	OFF
Digital Counter 1 Down	OFF
Digital Counter 1 Block	OFF
Digital Counter 1 Set To Preset	OFF
Digital Counter 1 Reset	OFF
Digital Counter 1 Freeze/Reset	OFF
Digital Counter 1 Freeze/Count	OFF
Digital Counter 2 Function	Disabled
Digital Counter 2 Name	Counter 2
Digital Counter 2 Units	
Digital Counter 2 Preset	0
Digital Counter 2 Compare	0
Digital Counter 2 Up	OFF
Digital Counter 2 Down	OFF
Digital Counter 2 Block	OFF
Digital Counter 2 Set To Preset	OFF
Digital Counter 2 Reset	OFF

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DESCRIPTION: (NONE)
TEXT COLOR

DIGITAL COUNTERS (continued from last page)

Digital Counter 2 Freeze/Reset	OFF
Digital Counter 2 Freeze/Count	OFF
Digital Counter 3 Function	Disabled
Digital Counter 3 Name	Counter 3
Digital Counter 3 Units	
Digital Counter 3 Preset	0
Digital Counter 3 Compare	0
Digital Counter 3 Up	OFF
Digital Counter 3 Down	OFF
Digital Counter 3 Block	OFF
Digital Counter 3 Set To Preset	OFF
Digital Counter 3 Reset	OFF
Digital Counter 3 Freeze/Reset	OFF
Digital Counter 3 Freeze/Count	OFF
Digital Counter 4 Function	Disabled
Digital Counter 4 Name	Counter 4
Digital Counter 4 Units	
Digital Counter 4 Preset	0
Digital Counter 4 Compare	0
Digital Counter 4 Up	OFF
Digital Counter 4 Down	OFF
Digital Counter 4 Block	OFF
Digital Counter 4 Set To Preset	OFF
Digital Counter 4 Reset	OFF
Digital Counter 4 Freeze/Reset	OFF
Digital Counter 4 Freeze/Count	OFF
Digital Counter 5 Function	Disabled
Digital Counter 5 Name	Counter 5
Digital Counter 5 Units	
Digital Counter 5 Preset	0
Digital Counter 5 Compare	0
Digital Counter 5 Up	OFF
Digital Counter 5 Down	OFF
Digital Counter 5 Block	OFF
Digital Counter 5 Set To Preset	OFF
Digital Counter 5 Reset	OFF
Digital Counter 5 Freeze/Reset	OFF
Digital Counter 5 Freeze/Count	OFF
Digital Counter 6 Function	Disabled
Digital Counter 6 Name	Counter 6
Digital Counter 6 Units	
Digital Counter 6 Preset	0
Digital Counter 6 Compare	0
Digital Counter 6 Up	OFF
Digital Counter 6 Down	OFF
Digital Counter 6 Block	OFF
Digital Counter 6 Set To Preset	OFF
Digital Counter 6 Reset	OFF
Digital Counter 6 Freeze/Reset	OFF
Digital Counter 6 Freeze/Count	OFF
Digital Counter 7 Function	Disabled
Digital Counter 7 Name	Counter 7
Digital Counter 7 Units	
Digital Counter 7 Preset	0
Digital Counter 7 Compare	0
Digital Counter 7 Up	OFF
Digital Counter 7 Down	OFF
Digital Counter 7 Block	OFF
Digital Counter 7 Set To Preset	OFF
Digital Counter 7 Reset	OFF
Digital Counter 7 Freeze/Reset	OFF
Digital Counter 7 Freeze/Count	OFF
Digital Counter 8 Function	Disabled
Digital Counter 8 Name	Counter 8
Digital Counter 8 Units	

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DESCRIPTION: (NONE)
TEXT COLOR

DIGITAL COUNTERS (continued from last page)

Digital Counter 8 Preset	0
Digital Counter 8 Compare	0
Digital Counter 8 Up	OFF
Digital Counter 8 Down	OFF
Digital Counter 8 Block	OFF
Digital Counter 8 Set To Preset	OFF
Digital Counter 8 Reset	OFF
Digital Counter 8 Freeze/Reset	OFF
Digital Counter 8 Freeze/Count	OFF

MONITORING ELEMENTS

BREAKER ARCING CURRENT

BREAKER 1 ARC: Function	Disabled
BREAKER 1 ARC: Source	Barra (SRC 1)
BREAKER 1 ARC: Init A	OFF
BREAKER 1 ARC: Init B	OFF
BREAKER 1 ARC: Init C	OFF
BREAKER 1 ARC: Delay	0.000 s
BREAKER 1 ARC: Limit	1000 kA2-cyc
BREAKER 1 ARC: Block	OFF
BREAKER 1 ARC: Target	Self-reset
BREAKER 1 ARC: Events	Enabled
BREAKER 2 ARC: Function	Disabled
BREAKER 2 ARC: Source	Barra (SRC 1)
BREAKER 2 ARC: Init A	OFF
BREAKER 2 ARC: Init B	OFF
BREAKER 2 ARC: Init C	OFF
BREAKER 2 ARC: Delay	0.000 s
BREAKER 2 ARC: Limit	1000 kA2-cyc
BREAKER 2 ARC: Block	OFF
BREAKER 2 ARC: Target	Self-reset
BREAKER 2 ARC: Events	Disabled

BREAKER FLASHOVER

BREAKER FLASHOVER 1: Function	Disabled
BREAKER FLASHOVER 1: Side 1	Barra (SRC 1)
BREAKER FLASHOVER 1: Side 2	None
BREAKER FLASHOVER 1: Status Closed A	OFF
BREAKER FLASHOVER 1: Status Closed B	OFF
BREAKER FLASHOVER 1: Status Closed C	OFF
BREAKER FLASHOVER 1: V Pickup	0.850 pu
BREAKER FLASHOVER 1: Diff V Pickup	1000 V
BREAKER FLASHOVER 1: Amp Pickup	0.600 pu
BREAKER FLASHOVER 1: Pickup Delay	0.100 s
BREAKER FLASHOVER 1: Supv A	OFF
BREAKER FLASHOVER 1: Supv B	OFF
BREAKER FLASHOVER 1: Supv C	OFF
BREAKER FLASHOVER 1: Block	OFF
BREAKER FLASHOVER 1: Target	Self-reset
BREAKER FLASHOVER 1: Events	Disabled
BREAKER FLASHOVER 2: Function	Disabled
BREAKER FLASHOVER 2: Side 1	Barra (SRC 1)
BREAKER FLASHOVER 2: Side 2	None
BREAKER FLASHOVER 2: Status Closed A	OFF
BREAKER FLASHOVER 2: Status Closed B	OFF
BREAKER FLASHOVER 2: Status Closed C	OFF
BREAKER FLASHOVER 2: V Pickup	0.850 pu
BREAKER FLASHOVER 2: Diff V Pickup	1000 V
BREAKER FLASHOVER 2: Amp Pickup	0.600 pu
BREAKER FLASHOVER 2: Pickup Delay	0.100 s
BREAKER FLASHOVER 2: Supv A	OFF
BREAKER FLASHOVER 2: Supv B	OFF
BREAKER FLASHOVER 2: Supv C	OFF
BREAKER FLASHOVER 2: Block	OFF
BREAKER FLASHOVER 2: Target	Self-reset

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DESCRIPTION: (NONE)
TEXT COLOR

BREAKER FLASHOVER (continued from last page)

BREAKER FLASHOVER 2: Events	Disabled

BREAKER RESTRIKE

Breaker Restrike 1 Function	Disabled
Breaker Restrike 1 Block	OFF
Breaker Restrike 1 Signal Source	Barra (SRC 1)
Breaker Restrike 1 Pickup	0.50 pu
Breaker Restrike 1 Reset Delay	0.100 s
Breaker Restrike 1 HF Detect	Enabled
Breaker Restrike 1 Breaker Open	OFF
Breaker Restrike 1 Open Command	OFF
Breaker Restrike 1 Close Command	OFF
Breaker Restrike 1 Target	Self-reset
Breaker Restrike 1 Events	Disabled

VT FUSE FAILURE

VT FUSE FAILURE 1: Function	Enabled
VT FUSE FAILURE 1: Neutral Wire Open Detection	Disabled
VT FUSE FAILURE 1: 3rd Harmonic Pickup	0.100 pu
VT FUSE FAILURE 2: Function	Disabled
VT FUSE FAILURE 2: Neutral Wire Open Detection	Disabled
VT FUSE FAILURE 2: 3rd Harmonic Pickup	0.100 pu

OPEN POLE

Function	Disabled
Block	OFF
Voltage SUPV	Disabled
Current Pickup	0.050 pu
Open Pole Line XC1	9999.9 ohms
Open Pole Line XC0	9999.9 ohms
Open Pole REM Current PKP	0.050 pu
Open Pole Mode	Accelerated
Open Pole Detection	I AND V AND CBaux
Target	Self-reset
Events	Disabled

THERMAL OVERLOAD PROTECTION

THERMAL PROTECTION 1: Function	Disabled
THERMAL PROTECTION 1: Source	Barra (SRC 1)
THERMAL PROTECTION 1: Base Current	0.80 pu
THERMAL PROTECTION 1: k Factor	1.10
THERMAL PROTECTION 1: Trip Time Constant	45 min
THERMAL PROTECTION 1: Reset Time Constant	45 min
THERMAL PROTECTION 1: Minimum Reset Time	20 min
THERMAL PROTECTION 1: Reset	OFF
THERMAL PROTECTION 1: Block	OFF
THERMAL PROTECTION 1: Target	Self-reset
THERMAL PROTECTION 1: Events	Disabled
THERMAL PROTECTION 2: Function	Disabled
THERMAL PROTECTION 2: Source	Barra (SRC 1)
THERMAL PROTECTION 2: Base Current	0.80 pu
THERMAL PROTECTION 2: k Factor	1.10
THERMAL PROTECTION 2: Trip Time Constant	45 min
THERMAL PROTECTION 2: Reset Time Constant	45 min
THERMAL PROTECTION 2: Minimum Reset Time	20 min
THERMAL PROTECTION 2: Reset	OFF
THERMAL PROTECTION 2: Block	OFF
THERMAL PROTECTION 2: Target	Self-reset
THERMAL PROTECTION 2: Events	Disabled

BROKEN CONDUCTOR

BROKEN CONDUCTOR 1: Function	Disabled
BROKEN CONDUCTOR 1: Source	Barra (SRC 1)
BROKEN CONDUCTOR 1: I2/I1 Ratio	20.0 %
BROKEN CONDUCTOR 1: I1 Min	0.10 pu

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DESCRIPTION: (NONE)
TEXT COLOR

BROKEN CONDUCTOR (continued from last page)

BROKEN CONDUCTOR 1: I1 Max	1.50 pu
BROKEN CONDUCTOR 1: Pickup Delay	20.000 s
BROKEN CONDUCTOR 1: Block	OFF
BROKEN CONDUCTOR 1: Target	Self-reset
BROKEN CONDUCTOR 1: Events	Disabled
BROKEN CONDUCTOR 2: Function	Disabled
BROKEN CONDUCTOR 2: Source	Barra (SRC 1)
BROKEN CONDUCTOR 2: I2/I1 Ratio	20.0 %
BROKEN CONDUCTOR 2: I1 Min	0.10 pu
BROKEN CONDUCTOR 2: I1 Max	1.50 pu
BROKEN CONDUCTOR 2: Pickup Delay	20.000 s
BROKEN CONDUCTOR 2: Block	OFF
BROKEN CONDUCTOR 2: Target	Self-reset
BROKEN CONDUCTOR 2: Events	Disabled

PILOT SCHEMES

1P DUTT SCHEME

Function	Disabled
Block	OFF
Seal-In Delay	0.000 s
No of Comm Bits	1
RX1	OFF
RX2	OFF
RX3	OFF
RX4	OFF
Target	Self-reset
Event	Disabled

1P PUTT SCHEME

Function	Disabled
Block	OFF
Rx Pickup Delay	0.000 s
Seal-In Delay	0.000 s
No of Comm Bits	1
Rx1	OFF
Rx2	OFF
Rx3	OFF
Rx4	OFF
target	Self-reset
Event	Disabled

1P POTT SCHEME

Function	Disabled
Block	OFF
Permissive Echo	Disabled
Echo Condition	OFF
Rx Pickup Delay	0.000 s
Trans Block Pickup Delay	0.020 s
Trans Block Reset Delay	0.090 s
Echo Duration	0.100 s
Echo Lockout	0.250 s
Line End Open Pickup Delay	0.050 s
Seal-In Delay	0.000 s
Gnd Dir OC Fwd	OFF
Comm Bits	1
Rx1	OFF
Rx2	OFF
Rx3	OFF
Rx4	OFF
Target	Self-reset
Event	Disabled

1P HYBRID POTT SCHEME

Function	Enabled
Block	OFF

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DESCRIPTION: (NONE)
TEXT COLOR

1P HYBRID POTT SCHEME (continued from last page)

Permissive Echo	Disabled
Echo Condition	OFF
Weak Infeed	Disabled
W/I Condition	OFF
Rx Pickup Delay	0.000 s
Trans Block Pickup Delay	0.020 s
Trans Block Reset Delay	0.090 s
Echo Duration	0.100 s
Echo Lockout	0.250 s
Seal-In Delay	0.000 s
Gnd Dir OC Fwd	NTRL DIR OC1 FWD
Gnd Dir OC Rev	NTRL DIR OC1 REV
No of Comm Bits	1
Rx1	RX85A 2 PTA On (VO11)
Rx2	OFF
Rx3	OFF
Rx4	OFF
Target	Self-reset
Event	Enabled

1P BLOCKING SCHEME

Function	Disabled
Block	OFF
Rx Coord Pickup Delay	0.010 s
Transient Block Pickup Delay	0.030 s
Transient Block Reset Delay	0.090 s
Seal-In Delay	0.000 s
Gnd Dir OC Fwd	OFF
Gnd Dir OC Rev	OFF
No of Comm Bits	1
Rx1	OFF
Rx2	OFF
Rx3	OFF
Rx4	OFF
Target	Self-reset
Event	Disabled

DCUB SCHEME

Scheme Function	Disabled
Block	OFF
Permissive Echo	Disabled
Echo Cond	OFF
Gnd Dir OC Fwd	OFF
Gnd Dir OC Rev	OFF
Trans Block Pickup Delay	0.020 s
Trans Block Reset Delay	0.090 s
Echo Duration	0.100 s
Echo Lockout	0.250 s
Line End Open Pickup Delay	0.050 s
Log Pickup Delay	0.008 s
Guard Healthy Reset Delay	0.015 s
Log Trip Window	0.150 s
Seal In Delay	0.010 s
Comm Bits	1
Rx1	OFF
Log1	OFF
Rx2	OFF
Log2	OFF
Rx3	OFF
Log3	OFF
Rx4	OFF
Log4	OFF
Target	Self-reset
Event	Disabled

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TEXT COLOR

AUTORECLOSE 1P

Function	Disabled
Mode	1 & 3 Pole
Max Number Of Shots	2
AR Initiate Mode	Protection AND CB
Block BKR1	OFF
Close Time BKR1	0.10 s
BKR Man Close	OFF
Blk Time Upon Man Cls	10.00 s
1-P Init	OFF
3-P Init	OFF
3-P TD Init	OFF
Multi P Fault	OFF
BKR 1 Pole Open	OFF
BKR 3 Pole Open	OFF
3-P Dead Time 1	0.50 s
3-P Dead Time 2	1.20 s
3-P Dead Time 3	2.00 s
3-P Dead Time 4	4.00 s
Extend Dead T1	OFF
Dead T1 Extension	0.50 s
Reset	OFF
Reset Time	60.00 s
BKR Closed	OFF
Block	OFF
Pause	OFF
Inc Seq Time	5.00 s
Block BKR2	OFF
Close Time BKR2	0.10 s
Transfer 1 to 2	No
Transfer 2 to 1	No
BKR1 Fail Option	Continue
BKR2 Fail Option	Continue
1-P Dead Time	1.00 s
BKR Sequence	1 - 2
Transfer Time	4.00 s
BUS FLT Init	OFF
Event	Disabled

FREQUENCY RATE OF CHANGE

FREQ RATE 1: Function	Disabled
FREQ RATE 1: Source	Barra (SRC 1)
FREQ RATE 1: Trend	Increasing
FREQ RATE 1: Pickup	0.50 Hz/s
FREQ RATE 1: OV Supv	0.700 pu
FREQ RATE 1: OC Supv	0.200 pu
FREQ RATE 1: Min	45.00 Hz
FREQ RATE 1: Max	65.00 Hz
FREQ RATE 1: Pickup Delay	0.000 s
FREQ RATE 1: Reset Delay	0.000 s
FREQ RATE 1: Block	OFF
FREQ RATE 1: Target	Self-reset
FREQ RATE 1: Events	Disabled
FREQ RATE 2: Function	Disabled
FREQ RATE 2: Source	Barra (SRC 1)
FREQ RATE 2: Trend	Increasing
FREQ RATE 2: Pickup	0.50 Hz/s
FREQ RATE 2: OV Supv	0.700 pu
FREQ RATE 2: OC Supv	0.200 pu
FREQ RATE 2: Min	45.00 Hz
FREQ RATE 2: Max	65.00 Hz
FREQ RATE 2: Pickup Delay	0.000 s
FREQ RATE 2: Reset Delay	0.000 s
FREQ RATE 2: Block	OFF
FREQ RATE 2: Target	Self-reset
FREQ RATE 2: Events	Disabled

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FREQUENCY RATE OF CHANGE (continued from last page)

FREQ RATE 3: Function	Disabled
FREQ RATE 3: Source	Barra (SRC 1)
FREQ RATE 3: Trend	Increasing
FREQ RATE 3: Pickup	0.50 Hz/s
FREQ RATE 3: OV Supv	0.700 pu
FREQ RATE 3: OC Supv	0.200 pu
FREQ RATE 3: Min	45.00 Hz
FREQ RATE 3: Max	65.00 Hz
FREQ RATE 3: Pickup Delay	0.000 s
FREQ RATE 3: Reset Delay	0.000 s
FREQ RATE 3: Block	OFF
FREQ RATE 3: Target	Self-reset
FREQ RATE 3: Events	Disabled
FREQ RATE 4: Function	Disabled
FREQ RATE 4: Source	Barra (SRC 1)
FREQ RATE 4: Trend	Increasing
FREQ RATE 4: Pickup	0.50 Hz/s
FREQ RATE 4: OV Supv	0.700 pu
FREQ RATE 4: OC Supv	0.200 pu
FREQ RATE 4: Min	45.00 Hz
FREQ RATE 4: Max	65.00 Hz
FREQ RATE 4: Pickup Delay	0.000 s
FREQ RATE 4: Reset Delay	0.000 s
FREQ RATE 4: Block	OFF
FREQ RATE 4: Target	Self-reset
FREQ RATE 4: Events	Disabled

INPUTS/OUTPUTS

CONTACT INPUTS

[H1A] Contact Input 1 ID	Bloqueo 79
[H1A] Contact Input 1 Debounce Time	2.0 ms
[H1A] Contact Input 1 Events	Enabled
[H1C] Contact Input 2 ID	52H3 Abierto
[H1C] Contact Input 2 Debounce Time	2.0 ms
[H1C] Contact Input 2 Events	Enabled
[H2A] Contact Input 3 ID	52H3 cerrado
[H2A] Contact Input 3 Debounce Time	2.0 ms
[H2A] Contact Input 3 Events	Enabled
[H2C] Contact Input 4 ID	Cont Ip 4
[H2C] Contact Input 4 Debounce Time	2.0 ms
[H2C] Contact Input 4 Events	Disabled
[H3A] Contact Input 5 ID	RX 85A ACON
[H3A] Contact Input 5 Debounce Time	2.0 ms
[H3A] Contact Input 5 Events	Enabled
[H3C] Contact Input 6 ID	Cont Ip 6
[H3C] Contact Input 6 Debounce Time	2.0 ms
[H3C] Contact Input 6 Events	Disabled
[H4A] Contact Input 7 ID	Cont Ip 7
[H4A] Contact Input 7 Debounce Time	2.0 ms
[H4A] Contact Input 7 Events	Disabled
[H4C] Contact Input 8 ID	Cont Ip 8
[H4C] Contact Input 8 Debounce Time	2.0 ms
[H4C] Contact Input 8 Events	Disabled
[H5A] Contact Input 9 ID	RX 85A ESP
[H5A] Contact Input 9 Debounce Time	2.0 ms
[H5A] Contact Input 9 Events	Enabled
[H5C] Contact Input 10 ID	Cont Ip 10
[H5C] Contact Input 10 Debounce Time	2.0 ms
[H5C] Contact Input 10 Events	Disabled
[H6A] Contact Input 11 ID	Cont Ip 11
[H6A] Contact Input 11 Debounce Time	2.0 ms
[H6A] Contact Input 11 Events	Disabled
[H6C] Contact Input 12 ID	Cont Ip 12
[H6C] Contact Input 12 Debounce Time	2.0 ms
[H6C] Contact Input 12 Events	Disabled

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ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
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DESCRIPTION: (NONE)
TEXT COLOR

CONTACT INPUTS (continued from last page)

[H7A] Contact Input 13 ID	Cont Ip 13
[H7A] Contact Input 13 Debounce Time	2.0 ms
[H7A] Contact Input 13 Events	Disabled
[H7C] Contact Input 14 ID	Cont Ip 14
[H7C] Contact Input 14 Debounce Time	2.0 ms
[H7C] Contact Input 14 Events	Disabled
[H8A] Contact Input 15 ID	Cont Ip 15
[H8A] Contact Input 15 Debounce Time	2.0 ms
[H8A] Contact Input 15 Events	Disabled
[H8C] Contact Input 16 ID	Cont Ip 16
[H8C] Contact Input 16 Debounce Time	2.0 ms
[H8C] Contact Input 16 Events	Disabled
[P7A] Contact Input 17 ID	Cont Ip 17
[P7A] Contact Input 17 Debounce Time	2.0 ms
[P7A] Contact Input 17 Events	Disabled
[P7C] Contact Input 18 ID	Cont Ip 18
[P7C] Contact Input 18 Debounce Time	2.0 ms
[P7C] Contact Input 18 Events	Disabled
[P8A] Contact Input 19 ID	Cont Ip 19
[P8A] Contact Input 19 Debounce Time	2.0 ms
[P8A] Contact Input 19 Events	Disabled
[P8C] Contact Input 20 ID	Cont Ip 20
[P8C] Contact Input 20 Debounce Time	2.0 ms
[P8C] Contact Input 20 Events	Disabled

CONTACT INPUT THRESHOLDS

Bloqueo 79, 52H3 Abierto, 52H3 cerrado, Cont Ip 4(H1a, H1c, H2a, H2c)	84 Vdc
RX 85A ACON, Cont Ip 6, Cont Ip 7, Cont Ip 8(H3a, H3c, H4a, H4c)	84 Vdc
RX 85A ESP, Cont Ip 10, Cont Ip 11, Cont Ip 12(H5a, H5c, H6a, H6c)	84 Vdc
Cont Ip 13, Cont Ip 14, Cont Ip 15, Cont Ip 16(H7a, H7c, H8a, H8c)	84 Vdc
Cont Ip 17, Cont Ip 18, Cont Ip 19, Cont Ip 20(P7a, P7c, P8a, P8c)	84 Vdc

VIRTUAL INPUTS

VIRTUAL INPUTS

Virtual Input 1 Function	Disabled
Virtual Input 1 ID	Virt Ip 1
Virtual Input 1 Type	Latched
Virtual Input 1 Events	Disabled
Virtual Input 2 Function	Disabled
Virtual Input 2 ID	Virt Ip 2
Virtual Input 2 Type	Latched
Virtual Input 2 Events	Disabled
Virtual Input 3 Function	Disabled
Virtual Input 3 ID	Virt Ip 3
Virtual Input 3 Type	Latched
Virtual Input 3 Events	Disabled
Virtual Input 4 Function	Disabled
Virtual Input 4 ID	Virt Ip 4
Virtual Input 4 Type	Latched
Virtual Input 4 Events	Disabled
Virtual Input 5 Function	Disabled
Virtual Input 5 ID	Virt Ip 5
Virtual Input 5 Type	Latched
Virtual Input 5 Events	Disabled
Virtual Input 6 Function	Disabled
Virtual Input 6 ID	Virt Ip 6
Virtual Input 6 Type	Latched
Virtual Input 6 Events	Disabled
Virtual Input 7 Function	Disabled
Virtual Input 7 ID	Virt Ip 7
Virtual Input 7 Type	Latched
Virtual Input 7 Events	Disabled
Virtual Input 8 Function	Disabled
Virtual Input 8 ID	Virt Ip 8
Virtual Input 8 Type	Latched

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DESCRIPTION: (NONE)
TEXT COLOR

VIRTUAL INPUTS (continued from last page)

Virtual Input 8 Events	Disabled
Virtual Input 9 Function	Disabled
Virtual Input 9 ID	Virt Ip 9
Virtual Input 9 Type	Latched
Virtual Input 9 Events	Disabled
Virtual Input 10 Function	Disabled
Virtual Input 10 ID	Virt Ip 10
Virtual Input 10 Type	Latched
Virtual Input 10 Events	Disabled
Virtual Input 11 Function	Disabled
Virtual Input 11 ID	Virt Ip 11
Virtual Input 11 Type	Latched
Virtual Input 11 Events	Disabled
Virtual Input 12 Function	Disabled
Virtual Input 12 ID	Virt Ip 12
Virtual Input 12 Type	Latched
Virtual Input 12 Events	Disabled
Virtual Input 13 Function	Disabled
Virtual Input 13 ID	Virt Ip 13
Virtual Input 13 Type	Latched
Virtual Input 13 Events	Disabled
Virtual Input 14 Function	Disabled
Virtual Input 14 ID	Virt Ip 14
Virtual Input 14 Type	Latched
Virtual Input 14 Events	Disabled
Virtual Input 15 Function	Disabled
Virtual Input 15 ID	Virt Ip 15
Virtual Input 15 Type	Latched
Virtual Input 15 Events	Disabled
Virtual Input 16 Function	Disabled
Virtual Input 16 ID	Virt Ip 16
Virtual Input 16 Type	Latched
Virtual Input 16 Events	Disabled
Virtual Input 17 Function	Disabled
Virtual Input 17 ID	Virt Ip 17
Virtual Input 17 Type	Latched
Virtual Input 17 Events	Disabled
Virtual Input 18 Function	Disabled
Virtual Input 18 ID	Virt Ip 18
Virtual Input 18 Type	Latched
Virtual Input 18 Events	Disabled
Virtual Input 19 Function	Disabled
Virtual Input 19 ID	Virt Ip 19
Virtual Input 19 Type	Latched
Virtual Input 19 Events	Disabled
Virtual Input 20 Function	Disabled
Virtual Input 20 ID	Virt Ip 20
Virtual Input 20 Type	Latched
Virtual Input 20 Events	Disabled
Virtual Input 21 Function	Disabled
Virtual Input 21 ID	Virt Ip 21
Virtual Input 21 Type	Latched
Virtual Input 21 Events	Disabled
Virtual Input 22 Function	Disabled
Virtual Input 22 ID	Virt Ip 22
Virtual Input 22 Type	Latched
Virtual Input 22 Events	Disabled
Virtual Input 23 Function	Disabled
Virtual Input 23 ID	Virt Ip 23
Virtual Input 23 Type	Latched
Virtual Input 23 Events	Disabled
Virtual Input 24 Function	Disabled
Virtual Input 24 ID	Virt Ip 24
Virtual Input 24 Type	Latched
Virtual Input 24 Events	Disabled

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DESCRIPTION: (NONE)
TEXT COLOR

VIRTUAL INPUTS (continued from last page)

Virtual Input 25 Function	Disabled
Virtual Input 25 ID	Virt Ip 25
Virtual Input 25 Type	Latched
Virtual Input 25 Events	Disabled
Virtual Input 26 Function	Disabled
Virtual Input 26 ID	Virt Ip 26
Virtual Input 26 Type	Latched
Virtual Input 26 Events	Disabled
Virtual Input 27 Function	Disabled
Virtual Input 27 ID	Virt Ip 27
Virtual Input 27 Type	Latched
Virtual Input 27 Events	Disabled
Virtual Input 28 Function	Disabled
Virtual Input 28 ID	Virt Ip 28
Virtual Input 28 Type	Latched
Virtual Input 28 Events	Disabled
Virtual Input 29 Function	Disabled
Virtual Input 29 ID	Virt Ip 29
Virtual Input 29 Type	Latched
Virtual Input 29 Events	Disabled
Virtual Input 30 Function	Disabled
Virtual Input 30 ID	Virt Ip 30
Virtual Input 30 Type	Latched
Virtual Input 30 Events	Disabled
Virtual Input 31 Function	Disabled
Virtual Input 31 ID	Virt Ip 31
Virtual Input 31 Type	Latched
Virtual Input 31 Events	Disabled
Virtual Input 32 Function	Disabled
Virtual Input 32 ID	Virt Ip 32
Virtual Input 32 Type	Latched
Virtual Input 32 Events	Disabled
Virtual Input 33 Function	Disabled
Virtual Input 33 ID	Virt Ip 33
Virtual Input 33 Type	Latched
Virtual Input 33 Events	Disabled
Virtual Input 34 Function	Disabled
Virtual Input 34 ID	Virt Ip 34
Virtual Input 34 Type	Latched
Virtual Input 34 Events	Disabled
Virtual Input 35 Function	Disabled
Virtual Input 35 ID	Virt Ip 35
Virtual Input 35 Type	Latched
Virtual Input 35 Events	Disabled
Virtual Input 36 Function	Disabled
Virtual Input 36 ID	Virt Ip 36
Virtual Input 36 Type	Latched
Virtual Input 36 Events	Disabled
Virtual Input 37 Function	Disabled
Virtual Input 37 ID	Virt Ip 37
Virtual Input 37 Type	Latched
Virtual Input 37 Events	Disabled
Virtual Input 38 Function	Disabled
Virtual Input 38 ID	Virt Ip 38
Virtual Input 38 Type	Latched
Virtual Input 38 Events	Disabled
Virtual Input 39 Function	Disabled
Virtual Input 39 ID	Virt Ip 39
Virtual Input 39 Type	Latched
Virtual Input 39 Events	Disabled
Virtual Input 40 Function	Disabled
Virtual Input 40 ID	Virt Ip 40
Virtual Input 40 Type	Latched
Virtual Input 40 Events	Disabled
Virtual Input 41 Function	Disabled

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DESCRIPTION: (NONE)
TEXT COLOR

VIRTUAL INPUTS (continued from last page)

Virtual Input 41 ID	Virt Ip 41
Virtual Input 41 Type	Latched
Virtual Input 41 Events	Disabled
Virtual Input 42 Function	Disabled
Virtual Input 42 ID	Virt Ip 42
Virtual Input 42 Type	Latched
Virtual Input 42 Events	Disabled
Virtual Input 43 Function	Disabled
Virtual Input 43 ID	Virt Ip 43
Virtual Input 43 Type	Latched
Virtual Input 43 Events	Disabled
Virtual Input 44 Function	Disabled
Virtual Input 44 ID	Virt Ip 44
Virtual Input 44 Type	Latched
Virtual Input 44 Events	Disabled
Virtual Input 45 Function	Disabled
Virtual Input 45 ID	Virt Ip 45
Virtual Input 45 Type	Latched
Virtual Input 45 Events	Disabled
Virtual Input 46 Function	Disabled
Virtual Input 46 ID	Virt Ip 46
Virtual Input 46 Type	Latched
Virtual Input 46 Events	Disabled
Virtual Input 47 Function	Disabled
Virtual Input 47 ID	Virt Ip 47
Virtual Input 47 Type	Latched
Virtual Input 47 Events	Disabled
Virtual Input 48 Function	Disabled
Virtual Input 48 ID	Virt Ip 48
Virtual Input 48 Type	Latched
Virtual Input 48 Events	Disabled
Virtual Input 49 Function	Disabled
Virtual Input 49 ID	Virt Ip 49
Virtual Input 49 Type	Latched
Virtual Input 49 Events	Disabled
Virtual Input 50 Function	Disabled
Virtual Input 50 ID	Virt Ip 50
Virtual Input 50 Type	Latched
Virtual Input 50 Events	Disabled
Virtual Input 51 Function	Disabled
Virtual Input 51 ID	Virt Ip 51
Virtual Input 51 Type	Latched
Virtual Input 51 Events	Disabled
Virtual Input 52 Function	Disabled
Virtual Input 52 ID	Virt Ip 52
Virtual Input 52 Type	Latched
Virtual Input 52 Events	Disabled
Virtual Input 53 Function	Disabled
Virtual Input 53 ID	Virt Ip 53
Virtual Input 53 Type	Latched
Virtual Input 53 Events	Disabled
Virtual Input 54 Function	Disabled
Virtual Input 54 ID	Virt Ip 54
Virtual Input 54 Type	Latched
Virtual Input 54 Events	Disabled
Virtual Input 55 Function	Disabled
Virtual Input 55 ID	Virt Ip 55
Virtual Input 55 Type	Latched
Virtual Input 55 Events	Disabled
Virtual Input 56 Function	Disabled
Virtual Input 56 ID	Virt Ip 56
Virtual Input 56 Type	Latched
Virtual Input 56 Events	Disabled
Virtual Input 57 Function	Disabled
Virtual Input 57 ID	Virt Ip 57

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DESCRIPTION: (NONE)
TEXT COLOR

VIRTUAL INPUTS (continued from last page)

Virtual Input 57 Type	Latched
Virtual Input 57 Events	Disabled
Virtual Input 58 Function	Disabled
Virtual Input 58 ID	Virt Ip 58
Virtual Input 58 Type	Latched
Virtual Input 58 Events	Disabled
Virtual Input 59 Function	Disabled
Virtual Input 59 ID	Virt Ip 59
Virtual Input 59 Type	Latched
Virtual Input 59 Events	Disabled
Virtual Input 60 Function	Disabled
Virtual Input 60 ID	Virt Ip 60
Virtual Input 60 Type	Latched
Virtual Input 60 Events	Disabled
Virtual Input 61 Function	Disabled
Virtual Input 61 ID	Virt Ip 61
Virtual Input 61 Type	Latched
Virtual Input 61 Events	Disabled
Virtual Input 62 Function	Disabled
Virtual Input 62 ID	Virt Ip 62
Virtual Input 62 Type	Latched
Virtual Input 62 Events	Disabled
Virtual Input 63 Function	Disabled
Virtual Input 63 ID	Virt Ip 63
Virtual Input 63 Type	Latched
Virtual Input 63 Events	Disabled
Virtual Input 64 Function	Disabled
Virtual Input 64 ID	Virt Ip 64
Virtual Input 64 Type	Latched
Virtual Input 64 Events	Disabled

CONTACT OUTPUTS

[M1] Contact Output 1 ID	Cont Op 1
[M1] Contact Output 1 Operate	OFF
[M1] Latching Output 1 Reset	OFF
[M1] Latching Output 1 Type	Operate-dominant
[M1] Contact Output 1 Events	Enabled
[M2] Contact Output 2 ID	Cont Op 2
[M2] Contact Output 2 Operate	OFF
[M2] Latching Output 2 Reset	OFF
[M2] Latching Output 2 Type	Operate-dominant
[M2] Contact Output 2 Events	Enabled
[M3] Contact Output 3 ID	Cont Op 3
[M3] Contact Output 3 Operate	OFF
[M3] Latching Output 3 Reset	OFF
[M3] Latching Output 3 Type	Operate-dominant
[M3] Contact Output 3 Events	Enabled
[M4] Contact Output 4 ID	TRIP 21
[M4] Contact Output 4 Operate	TRIPBUS 1 OP
[M4] Latching Output 4 Reset	OFF
[M4] Latching Output 4 Type	Operate-dominant
[M4] Contact Output 4 Events	Enabled
[M5] Contact Output 5 ID	Cont Op 5
[M5] Contact Output 5 Operate	OFF
[M5] Latching Output 5 Reset	OFF
[M5] Latching Output 5 Type	Operate-dominant
[M5] Contact Output 5 Events	Enabled
[M6] Contact Output 6 ID	Cont Op 6
[M6] Contact Output 6 Operate	OFF
[M6] Latching Output 6 Reset	OFF
[M6] Latching Output 6 Type	Operate-dominant
[M6] Contact Output 6 Events	Disabled
[M7] Contact Output 7 ID	TX 85A Acon
[M7] Contact Output 7 Operate	TX 85A On (VO10)
[M7] Latching Output 7 Reset	ON

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DESCRIPTION: (NONE)
TEXT COLOR

CONTACT OUTPUTS (continued from last page)

[M7] Latching Output 7 Type	Operate-dominant
[M7] Contact Output 7 Events	Enabled
[M8] Contact Output 8 ID	Cont Op 8
[M8] Contact Output 8 Operate	OFF
[M8] Latching Output 8 Reset	OFF
[M8] Latching Output 8 Type	Operate-dominant
[M8] Contact Output 8 Events	Disabled
[M9] Contact Output 9 ID	TX 85A Esp
[M9] Contact Output 9 Operate	TX 85A On (VO10)
[M9] Latching Output 9 Reset	ON
[M9] Latching Output 9 Type	Operate-dominant
[M9] Contact Output 9 Events	Enabled
[M10] Contact Output 10 ID	Cont Op 10
[M10] Contact Output 10 Operate	OFF
[M10] Latching Output 10 Reset	OFF
[M10] Latching Output 10 Type	Reset-dominant
[M10] Contact Output 10 Events	Enabled
[M11] Contact Output 11 ID	Perm 89H3-2T
[M11] Contact Output 11 Operate	AUX UV 1 OP
[M11] Latching Output 11 Reset	AUX UV 1 DPO
[M11] Latching Output 11 Type	Operate-dominant
[M11] Contact Output 11 Events	Enabled
[M12] Contact Output 12 ID	Cont Op 12
[M12] Contact Output 12 Operate	OFF
[M12] Latching Output 12 Reset	OFF
[M12] Latching Output 12 Type	Operate-dominant
[M12] Contact Output 12 Events	Enabled
[M13] Contact Output 13 ID	Cont Op 13
[M13] Contact Output 13 Operate	OFF
[M13] Latching Output 13 Reset	OFF
[M13] Latching Output 13 Type	Operate-dominant
[M13] Contact Output 13 Events	Enabled
[M14] Contact Output 14 ID	Cont Op 14
[M14] Contact Output 14 Operate	OFF
[M14] Latching Output 14 Reset	OFF
[M14] Latching Output 14 Type	Operate-dominant
[M14] Contact Output 14 Events	Enabled
[P1] Contact Output 15 ID	Cont Op 15
[P1] Contact Output 15 Operate	OFF
[P1] Contact Output 15 Seal-In	OFF
[P1] Contact Output 15 Events	Enabled
[P2] Contact Output 16 ID	TRIP BOB1
[P2] Contact Output 16 Operate	TRIPBUS 1 OP
[P2] Contact Output 16 Seal-In	OFF
[P2] Contact Output 16 Events	Enabled
[P3] Contact Output 17 ID	Cont Op 17
[P3] Contact Output 17 Operate	OFF
[P3] Contact Output 17 Seal-In	OFF
[P3] Contact Output 17 Events	Enabled
[P4] Contact Output 18 ID	Cont Op 18
[P4] Contact Output 18 Operate	OFF
[P4] Contact Output 18 Seal-In	OFF
[P4] Contact Output 18 Events	Enabled
[P5] Contact Output 19 ID	TRIP BOB2
[P5] Contact Output 19 Operate	TRIPBUS 1 OP
[P5] Contact Output 19 Seal-In	OFF
[P5] Contact Output 19 Events	Enabled
[P6] Contact Output 20 ID	Pruebas
[P6] Contact Output 20 Operate	OFF
[P6] Contact Output 20 Seal-In	OFF
[P6] Contact Output 20 Events	Enabled

VIRTUAL OUTPUTS

Virtual Output 1 ID	Op. 21/21N
Virtual Output 1 Events	Enabled

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DESCRIPTION: (NONE)
TEXT COLOR

VIRTUAL OUTPUTS (continued from last page)

Virtual Output 2 ID	68 T/P fail
Virtual Output 2 Events	Enabled
Virtual Output 3 ID	Bloq. 79
Virtual Output 3 Events	Enabled
Virtual Output 4 ID	TRIP 85A
Virtual Output 4 Events	Enabled
Virtual Output 5 ID	Virt Op 9
Virtual Output 5 Events	Disabled
Virtual Output 6 ID	Virt Op 10
Virtual Output 6 Events	Disabled
Virtual Output 7 ID	Arranque 79
Virtual Output 7 Events	Enabled
Virtual Output 8 ID	VCA_OK
Virtual Output 8 Events	Enabled
Virtual Output 9 ID	ECO
Virtual Output 9 Events	Enabled
Virtual Output 10 ID	TX 85A
Virtual Output 10 Events	Enabled
Virtual Output 11 ID	RX85A 2 PTA
Virtual Output 11 Events	Enabled
Virtual Output 12 ID	ECO OFF
Virtual Output 12 Events	Enabled
Virtual Output 13 ID	Virt Op 13
Virtual Output 13 Events	Disabled
Virtual Output 14 ID	Virt Op 14
Virtual Output 14 Events	Disabled
Virtual Output 15 ID	Virt Op 15
Virtual Output 15 Events	Disabled
Virtual Output 16 ID	Virt Op 16
Virtual Output 16 Events	Disabled
Virtual Output 17 ID	Virt Op 17
Virtual Output 17 Events	Disabled
Virtual Output 18 ID	Virt Op 18
Virtual Output 18 Events	Disabled
Virtual Output 19 ID	Virt Op 19
Virtual Output 19 Events	Disabled
Virtual Output 20 ID	Virt Op 20
Virtual Output 20 Events	Disabled
Virtual Output 21 ID	Virt Op 21
Virtual Output 21 Events	Disabled
Virtual Output 22 ID	Virt Op 22
Virtual Output 22 Events	Disabled
Virtual Output 23 ID	Virt Op 23
Virtual Output 23 Events	Disabled
Virtual Output 24 ID	Virt Op 24
Virtual Output 24 Events	Disabled
Virtual Output 25 ID	Virt Op 25
Virtual Output 25 Events	Disabled
Virtual Output 26 ID	Virt Op 26
Virtual Output 26 Events	Disabled
Virtual Output 27 ID	Virt Op 27
Virtual Output 27 Events	Disabled
Virtual Output 28 ID	Virt Op 28
Virtual Output 28 Events	Disabled
Virtual Output 29 ID	Virt Op 29
Virtual Output 29 Events	Disabled
Virtual Output 30 ID	Virt Op 30
Virtual Output 30 Events	Disabled
Virtual Output 31 ID	Virt Op 31
Virtual Output 31 Events	Disabled
Virtual Output 32 ID	Virt Op 32
Virtual Output 32 Events	Disabled
Virtual Output 33 ID	Virt Op 33
Virtual Output 33 Events	Disabled
Virtual Output 34 ID	Virt Op 34

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DESCRIPTION: (NONE)
TEXT COLOR

VIRTUAL OUTPUTS (continued from last page)

Virtual Output 34 Events	Disabled
Virtual Output 35 ID	Virt Op 35
Virtual Output 35 Events	Disabled
Virtual Output 36 ID	Virt Op 36
Virtual Output 36 Events	Disabled
Virtual Output 37 ID	Virt Op 37
Virtual Output 37 Events	Disabled
Virtual Output 38 ID	Virt Op 38
Virtual Output 38 Events	Disabled
Virtual Output 39 ID	Virt Op 39
Virtual Output 39 Events	Disabled
Virtual Output 40 ID	Virt Op 40
Virtual Output 40 Events	Disabled
Virtual Output 41 ID	Virt Op 41
Virtual Output 41 Events	Disabled
Virtual Output 42 ID	Virt Op 42
Virtual Output 42 Events	Disabled
Virtual Output 43 ID	Virt Op 43
Virtual Output 43 Events	Disabled
Virtual Output 44 ID	Virt Op 44
Virtual Output 44 Events	Disabled
Virtual Output 45 ID	Virt Op 45
Virtual Output 45 Events	Disabled
Virtual Output 46 ID	Virt Op 46
Virtual Output 46 Events	Disabled
Virtual Output 47 ID	Virt Op 47
Virtual Output 47 Events	Disabled
Virtual Output 48 ID	Virt Op 48
Virtual Output 48 Events	Disabled
Virtual Output 49 ID	Virt Op 49
Virtual Output 49 Events	Disabled
Virtual Output 50 ID	Virt Op 50
Virtual Output 50 Events	Disabled
Virtual Output 51 ID	Virt Op 51
Virtual Output 51 Events	Disabled
Virtual Output 52 ID	Virt Op 52
Virtual Output 52 Events	Disabled
Virtual Output 53 ID	Virt Op 53
Virtual Output 53 Events	Disabled
Virtual Output 54 ID	Virt Op 54
Virtual Output 54 Events	Disabled
Virtual Output 55 ID	Virt Op 55
Virtual Output 55 Events	Disabled
Virtual Output 56 ID	Virt Op 56
Virtual Output 56 Events	Disabled
Virtual Output 57 ID	Virt Op 57
Virtual Output 57 Events	Disabled
Virtual Output 58 ID	Virt Op 58
Virtual Output 58 Events	Disabled
Virtual Output 59 ID	Virt Op 59
Virtual Output 59 Events	Disabled
Virtual Output 60 ID	Virt Op 60
Virtual Output 60 Events	Disabled
Virtual Output 61 ID	Virt Op 61
Virtual Output 61 Events	Disabled
Virtual Output 62 ID	Virt Op 62
Virtual Output 62 Events	Disabled
Virtual Output 63 ID	Virt Op 63
Virtual Output 63 Events	Disabled
Virtual Output 64 ID	Osc Trigger
Virtual Output 64 Events	Enabled
Virtual Output 65 ID	Virt Op 65
Virtual Output 65 Events	Disabled
Virtual Output 66 ID	Virt Op 66
Virtual Output 66 Events	Disabled

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DESCRIPTION: (NONE)
TEXT COLOR

VIRTUAL OUTPUTS (continued from last page)

Virtual Output 67 ID	Virt Op 67
Virtual Output 67 Events	Disabled
Virtual Output 68 ID	Virt Op 68
Virtual Output 68 Events	Disabled
Virtual Output 69 ID	Virt Op 69
Virtual Output 69 Events	Disabled
Virtual Output 70 ID	Virt Op 70
Virtual Output 70 Events	Disabled
Virtual Output 71 ID	Virt Op 71
Virtual Output 71 Events	Disabled
Virtual Output 72 ID	Virt Op 72
Virtual Output 72 Events	Disabled
Virtual Output 73 ID	Virt Op 73
Virtual Output 73 Events	Disabled
Virtual Output 74 ID	Virt Op 74
Virtual Output 74 Events	Disabled
Virtual Output 75 ID	Virt Op 75
Virtual Output 75 Events	Disabled
Virtual Output 76 ID	Virt Op 76
Virtual Output 76 Events	Disabled
Virtual Output 77 ID	Virt Op 77
Virtual Output 77 Events	Disabled
Virtual Output 78 ID	Virt Op 78
Virtual Output 78 Events	Disabled
Virtual Output 79 ID	Virt Op 79
Virtual Output 79 Events	Disabled
Virtual Output 80 ID	Virt Op 80
Virtual Output 80 Events	Disabled
Virtual Output 81 ID	Virt Op 81
Virtual Output 81 Events	Disabled
Virtual Output 82 ID	Virt Op 82
Virtual Output 82 Events	Disabled
Virtual Output 83 ID	Virt Op 83
Virtual Output 83 Events	Disabled
Virtual Output 84 ID	Virt Op 84
Virtual Output 84 Events	Disabled
Virtual Output 85 ID	Virt Op 85
Virtual Output 85 Events	Disabled
Virtual Output 86 ID	Virt Op 86
Virtual Output 86 Events	Disabled
Virtual Output 87 ID	Virt Op 87
Virtual Output 87 Events	Disabled
Virtual Output 88 ID	Virt Op 88
Virtual Output 88 Events	Disabled
Virtual Output 89 ID	Virt Op 89
Virtual Output 89 Events	Disabled
Virtual Output 90 ID	Virt Op 90
Virtual Output 90 Events	Disabled
Virtual Output 91 ID	Virt Op 91
Virtual Output 91 Events	Disabled
Virtual Output 92 ID	Virt Op 92
Virtual Output 92 Events	Disabled
Virtual Output 93 ID	Virt Op 93
Virtual Output 93 Events	Disabled
Virtual Output 94 ID	Virt Op 94
Virtual Output 94 Events	Disabled
Virtual Output 95 ID	Virt Op 95
Virtual Output 95 Events	Disabled
Virtual Output 96 ID	Virt Op 96
Virtual Output 96 Events	Disabled

REMOTE DEVICES

Remote Device 1 ID	Remote Device 1
Remote Device 1 ETYPE APPID	0
Remote Device 1 DATASET	Fixed

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DESCRIPTION: (NONE)
TEXT COLOR

REMOTE DEVICES (continued from last page)

Remote Device 2 ID	Remote Device 2
Remote Device 2 ETYPE APPID	0
Remote Device 2 DATASET	Fixed
Remote Device 3 ID	Remote Device 3
Remote Device 3 ETYPE APPID	0
Remote Device 3 DATASET	Fixed
Remote Device 4 ID	Remote Device 4
Remote Device 4 ETYPE APPID	0
Remote Device 4 DATASET	Fixed
Remote Device 5 ID	Remote Device 5
Remote Device 5 ETYPE APPID	0
Remote Device 5 DATASET	Fixed
Remote Device 6 ID	Remote Device 6
Remote Device 6 ETYPE APPID	0
Remote Device 6 DATASET	Fixed
Remote Device 7 ID	Remote Device 7
Remote Device 7 ETYPE APPID	0
Remote Device 7 DATASET	Fixed
Remote Device 8 ID	Remote Device 8
Remote Device 8 ETYPE APPID	0
Remote Device 8 DATASET	Fixed
Remote Device 9 ID	Remote Device 9
Remote Device 9 ETYPE APPID	0
Remote Device 9 DATASET	Fixed
Remote Device 10 ID	Remote Device 10
Remote Device 10 ETYPE APPID	0
Remote Device 10 DATASET	Fixed
Remote Device 11 ID	Remote Device 11
Remote Device 11 ETYPE APPID	0
Remote Device 11 DATASET	Fixed
Remote Device 12 ID	Remote Device 12
Remote Device 12 ETYPE APPID	0
Remote Device 12 DATASET	Fixed
Remote Device 13 ID	Remote Device 13
Remote Device 13 ETYPE APPID	0
Remote Device 13 DATASET	Fixed
Remote Device 14 ID	Remote Device 14
Remote Device 14 ETYPE APPID	0
Remote Device 14 DATASET	Fixed
Remote Device 15 ID	Remote Device 15
Remote Device 15 ETYPE APPID	0
Remote Device 15 DATASET	Fixed
Remote Device 16 ID	Remote Device 16
Remote Device 16 ETYPE APPID	0
Remote Device 16 DATASET	Fixed

REMOTE INPUTS

Remote Input 1 Name	Rem Ip 1
Remote Input 1 Device	Remote Device 1
Remote Input 1 Item	None
Remote Input 1 Default State	Off
Remote Input 1 Events	Disabled
Remote Input 2 Name	Rem Ip 2
Remote Input 2 Device	Remote Device 1
Remote Input 2 Item	None
Remote Input 2 Default State	Off
Remote Input 2 Events	Disabled
Remote Input 3 Name	Rem Ip 3
Remote Input 3 Device	Remote Device 1
Remote Input 3 Item	None
Remote Input 3 Default State	Off
Remote Input 3 Events	Disabled
Remote Input 4 Name	Rem Ip 4
Remote Input 4 Device	Remote Device 1
Remote Input 4 Item	None

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DEVICE DEFINITION
FILES
ORDER CODE: D60-G03-HCH-F8L-H6D-M4L-P6U-UXX-WXX
VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

REMOTE INPUTS (continued from last page)

Remote Input 4 Default State	Off
Remote Input 4 Events	Disabled
Remote Input 5 Name	Rem Ip 5
Remote Input 5 Device	Remote Device 1
Remote Input 5 Item	None
Remote Input 5 Default State	Off
Remote Input 5 Events	Disabled
Remote Input 6 Name	Rem Ip 6
Remote Input 6 Device	Remote Device 1
Remote Input 6 Item	None
Remote Input 6 Default State	Off
Remote Input 6 Events	Disabled
Remote Input 7 Name	Rem Ip 7
Remote Input 7 Device	Remote Device 1
Remote Input 7 Item	None
Remote Input 7 Default State	Off
Remote Input 7 Events	Disabled
Remote Input 8 Name	Rem Ip 8
Remote Input 8 Device	Remote Device 1
Remote Input 8 Item	None
Remote Input 8 Default State	Off
Remote Input 8 Events	Disabled
Remote Input 9 Name	Rem Ip 9
Remote Input 9 Device	Remote Device 1
Remote Input 9 Item	None
Remote Input 9 Default State	Off
Remote Input 9 Events	Disabled
Remote Input 10 Name	Rem Ip 10
Remote Input 10 Device	Remote Device 1
Remote Input 10 Item	None
Remote Input 10 Default State	Off
Remote Input 10 Events	Disabled
Remote Input 11 Name	Rem Ip 11
Remote Input 11 Device	Remote Device 1
Remote Input 11 Item	None
Remote Input 11 Default State	Off
Remote Input 11 Events	Disabled
Remote Input 12 Name	Rem Ip 12
Remote Input 12 Device	Remote Device 1
Remote Input 12 Item	None
Remote Input 12 Default State	Off
Remote Input 12 Events	Disabled
Remote Input 13 Name	Rem Ip 13
Remote Input 13 Device	Remote Device 1
Remote Input 13 Item	None
Remote Input 13 Default State	Off
Remote Input 13 Events	Disabled
Remote Input 14 Name	Rem Ip 14
Remote Input 14 Device	Remote Device 1
Remote Input 14 Item	None
Remote Input 14 Default State	Off
Remote Input 14 Events	Disabled
Remote Input 15 Name	Rem Ip 15
Remote Input 15 Device	Remote Device 1
Remote Input 15 Item	None
Remote Input 15 Default State	Off
Remote Input 15 Events	Disabled
Remote Input 16 Name	Rem Ip 16
Remote Input 16 Device	Remote Device 1
Remote Input 16 Item	None
Remote Input 16 Default State	Off
Remote Input 16 Events	Disabled
Remote Input 17 Name	Rem Ip 17
Remote Input 17 Device	Remote Device 1
Remote Input 17 Item	None

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VERSION: 6.0X
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SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

REMOTE INPUTS (continued from last page)

Remote Input 17 Default State	Off
Remote Input 17 Events	Disabled
Remote Input 18 Name	Rem Ip 18
Remote Input 18 Device	Remote Device 1
Remote Input 18 Item	None
Remote Input 18 Default State	Off
Remote Input 18 Events	Disabled
Remote Input 19 Name	Rem Ip 19
Remote Input 19 Device	Remote Device 1
Remote Input 19 Item	None
Remote Input 19 Default State	Off
Remote Input 19 Events	Disabled
Remote Input 20 Name	Rem Ip 20
Remote Input 20 Device	Remote Device 1
Remote Input 20 Item	None
Remote Input 20 Default State	Off
Remote Input 20 Events	Disabled
Remote Input 21 Name	Rem Ip 21
Remote Input 21 Device	Remote Device 1
Remote Input 21 Item	None
Remote Input 21 Default State	Off
Remote Input 21 Events	Disabled
Remote Input 22 Name	Rem Ip 22
Remote Input 22 Device	Remote Device 1
Remote Input 22 Item	None
Remote Input 22 Default State	Off
Remote Input 22 Events	Disabled
Remote Input 23 Name	Rem Ip 23
Remote Input 23 Device	Remote Device 1
Remote Input 23 Item	None
Remote Input 23 Default State	Off
Remote Input 23 Events	Disabled
Remote Input 24 Name	Rem Ip 24
Remote Input 24 Device	Remote Device 1
Remote Input 24 Item	None
Remote Input 24 Default State	Off
Remote Input 24 Events	Disabled
Remote Input 25 Name	Rem Ip 25
Remote Input 25 Device	Remote Device 1
Remote Input 25 Item	None
Remote Input 25 Default State	Off
Remote Input 25 Events	Disabled
Remote Input 26 Name	Rem Ip 26
Remote Input 26 Device	Remote Device 1
Remote Input 26 Item	None
Remote Input 26 Default State	Off
Remote Input 26 Events	Disabled
Remote Input 27 Name	Rem Ip 27
Remote Input 27 Device	Remote Device 1
Remote Input 27 Item	None
Remote Input 27 Default State	Off
Remote Input 27 Events	Disabled
Remote Input 28 Name	Rem Ip 28
Remote Input 28 Device	Remote Device 1
Remote Input 28 Item	None
Remote Input 28 Default State	Off
Remote Input 28 Events	Disabled
Remote Input 29 Name	Rem Ip 29
Remote Input 29 Device	Remote Device 1
Remote Input 29 Item	None
Remote Input 29 Default State	Off
Remote Input 29 Events	Disabled
Remote Input 30 Name	Rem Ip 30
Remote Input 30 Device	Remote Device 1
Remote Input 30 Item	None

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VERSION: 6.0X
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DESCRIPTION: (NONE)
TEXT COLOR

REMOTE INPUTS (continued from last page)

Remote Input 30 Default State	Off
Remote Input 30 Events	Disabled
Remote Input 31 Name	Rem Ip 31
Remote Input 31 Device	Remote Device 1
Remote Input 31 Item	None
Remote Input 31 Default State	Off
Remote Input 31 Events	Disabled
Remote Input 32 Name	Rem Ip 32
Remote Input 32 Device	Remote Device 1
Remote Input 32 Item	None
Remote Input 32 Default State	Off
Remote Input 32 Events	Disabled

REMOTE DPS INPUTS

Remote DPS Input 1 Name	RemDPS Ip 1
Remote DPS Input 1 Device	Remote Device 1
Remote DPS Input 1 Item	None
Remote DPS Input 1 Events	Disabled
Remote DPS Input 2 Name	RemDPS Ip 2
Remote DPS Input 2 Device	Remote Device 1
Remote DPS Input 2 Item	None
Remote DPS Input 2 Events	Disabled
Remote DPS Input 3 Name	RemDPS Ip 3
Remote DPS Input 3 Device	Remote Device 1
Remote DPS Input 3 Item	None
Remote DPS Input 3 Events	Disabled
Remote DPS Input 4 Name	RemDPS Ip 4
Remote DPS Input 4 Device	Remote Device 1
Remote DPS Input 4 Item	None
Remote DPS Input 4 Events	Disabled
Remote DPS Input 5 Name	RemDPS Ip 5
Remote DPS Input 5 Device	Remote Device 1
Remote DPS Input 5 Item	None
Remote DPS Input 5 Events	Disabled

REMOTE OUTPUTS DNA BIT PAIRS

DNA 1: OPERAND	OFF
DNA 1: EVENTS	Disabled
DNA 2: OPERAND	OFF
DNA 2: EVENTS	Disabled
DNA 3: OPERAND	OFF
DNA 3: EVENTS	Disabled
DNA 4: OPERAND	OFF
DNA 4: EVENTS	Disabled
DNA 5: OPERAND	OFF
DNA 5: EVENTS	Disabled
DNA 6: OPERAND	OFF
DNA 6: EVENTS	Disabled
DNA 7: OPERAND	OFF
DNA 7: EVENTS	Disabled
DNA 8: OPERAND	OFF
DNA 8: EVENTS	Disabled
DNA 9: OPERAND	OFF
DNA 9: EVENTS	Disabled
DNA 10: OPERAND	OFF
DNA 10: EVENTS	Disabled
DNA 11: OPERAND	OFF
DNA 11: EVENTS	Disabled
DNA 12: OPERAND	OFF
DNA 12: EVENTS	Disabled
DNA 13: OPERAND	OFF
DNA 13: EVENTS	Disabled
DNA 14: OPERAND	OFF
DNA 14: EVENTS	Disabled
DNA 15: OPERAND	OFF

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DESCRIPTION: (NONE)
TEXT COLOR

REMOTE OUTPUTS DNA BIT PAIRS (continued from last page)

DNA 15: EVENTS	Disabled
DNA 16: OPERAND	OFF
DNA 16: EVENTS	Disabled
DNA 17: OPERAND	OFF
DNA 17: EVENTS	Disabled
DNA 18: OPERAND	OFF
DNA 18: EVENTS	Disabled
DNA 19: OPERAND	OFF
DNA 19: EVENTS	Disabled
DNA 20: OPERAND	OFF
DNA 20: EVENTS	Disabled
DNA 21: OPERAND	OFF
DNA 21: EVENTS	Disabled
DNA 22: OPERAND	OFF
DNA 22: EVENTS	Disabled
DNA 23: OPERAND	OFF
DNA 23: EVENTS	Disabled
DNA 24: OPERAND	OFF
DNA 24: EVENTS	Disabled
DNA 25: OPERAND	OFF
DNA 25: EVENTS	Disabled
DNA 26: OPERAND	OFF
DNA 26: EVENTS	Disabled
DNA 27: OPERAND	OFF
DNA 27: EVENTS	Disabled
DNA 28: OPERAND	OFF
DNA 28: EVENTS	Disabled
DNA 29: OPERAND	OFF
DNA 29: EVENTS	Disabled
DNA 30: OPERAND	OFF
DNA 30: EVENTS	Disabled
DNA 31: OPERAND	OFF
DNA 31: EVENTS	Disabled
DNA 32: OPERAND	OFF
DNA 32: EVENTS	Disabled

REMOTE OUTPUTS USERST BIT PAIRS

UserSt 1: OPERAND	OFF
UserSt 1: EVENTS	Disabled
UserSt 2: OPERAND	OFF
UserSt 2: EVENTS	Disabled
UserSt 3: OPERAND	OFF
UserSt 3: EVENTS	Disabled
UserSt 4: OPERAND	OFF
UserSt 4: EVENTS	Disabled
UserSt 5: OPERAND	OFF
UserSt 5: EVENTS	Disabled
UserSt 6: OPERAND	OFF
UserSt 6: EVENTS	Disabled
UserSt 7: OPERAND	OFF
UserSt 7: EVENTS	Disabled
UserSt 8: OPERAND	OFF
UserSt 8: EVENTS	Disabled
UserSt 9: OPERAND	OFF
UserSt 9: EVENTS	Disabled
UserSt 10: OPERAND	OFF
UserSt 10: EVENTS	Disabled
UserSt 11: OPERAND	OFF
UserSt 11: EVENTS	Disabled
UserSt 12: OPERAND	OFF
UserSt 12: EVENTS	Disabled
UserSt 13: OPERAND	OFF
UserSt 13: EVENTS	Disabled
UserSt 14: OPERAND	OFF
UserSt 14: EVENTS	Disabled

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VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

REMOTE OUTPUTS USERST BIT PAIRS (continued from last page)

UserSt 15: OPERAND	OFF
UserSt 15: EVENTS	Disabled
UserSt 16: OPERAND	OFF
UserSt 16: EVENTS	Disabled
UserSt 17: OPERAND	OFF
UserSt 17: EVENTS	Disabled
UserSt 18: OPERAND	OFF
UserSt 18: EVENTS	Disabled
UserSt 19: OPERAND	OFF
UserSt 19: EVENTS	Disabled
UserSt 20: OPERAND	OFF
UserSt 20: EVENTS	Disabled
UserSt 21: OPERAND	OFF
UserSt 21: EVENTS	Disabled
UserSt 22: OPERAND	OFF
UserSt 22: EVENTS	Disabled
UserSt 23: OPERAND	OFF
UserSt 23: EVENTS	Disabled
UserSt 24: OPERAND	OFF
UserSt 24: EVENTS	Disabled
UserSt 25: OPERAND	OFF
UserSt 25: EVENTS	Disabled
UserSt 26: OPERAND	OFF
UserSt 26: EVENTS	Disabled
UserSt 27: OPERAND	OFF
UserSt 27: EVENTS	Disabled
UserSt 28: OPERAND	OFF
UserSt 28: EVENTS	Disabled
UserSt 29: OPERAND	OFF
UserSt 29: EVENTS	Disabled
UserSt 30: OPERAND	OFF
UserSt 30: EVENTS	Disabled
UserSt 31: OPERAND	OFF
UserSt 31: EVENTS	Disabled
UserSt 32: OPERAND	OFF
UserSt 32: EVENTS	Disabled

RESETTING

Operand	OFF

IEC 61850 GOOSE ANALOGS INPUTS

IEC61850 GOOSE Analog Input 1 Default Value	1000.000
IEC61850 GOOSE Analog Input 1 Mode	Default Value
IEC61850 GOOSE Analog Input 1 Units	
IEC61850 GOOSE Analog Input 1 PU Base	1.000
IEC61850 GOOSE Analog Input 2 Default Value	1000.000
IEC61850 GOOSE Analog Input 2 Mode	Default Value
IEC61850 GOOSE Analog Input 2 Units	
IEC61850 GOOSE Analog Input 2 PU Base	1.000
IEC61850 GOOSE Analog Input 3 Default Value	1000.000
IEC61850 GOOSE Analog Input 3 Mode	Default Value
IEC61850 GOOSE Analog Input 3 Units	
IEC61850 GOOSE Analog Input 3 PU Base	1.000
IEC61850 GOOSE Analog Input 4 Default Value	1000.000
IEC61850 GOOSE Analog Input 4 Mode	Default Value
IEC61850 GOOSE Analog Input 4 Units	
IEC61850 GOOSE Analog Input 4 PU Base	1.000
IEC61850 GOOSE Analog Input 5 Default Value	1000.000
IEC61850 GOOSE Analog Input 5 Mode	Default Value
IEC61850 GOOSE Analog Input 5 Units	
IEC61850 GOOSE Analog Input 5 PU Base	1.000
IEC61850 GOOSE Analog Input 6 Default Value	1000.000
IEC61850 GOOSE Analog Input 6 Mode	Default Value
IEC61850 GOOSE Analog Input 6 Units	
IEC61850 GOOSE Analog Input 6 PU Base	1.000

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VERSION: 6.0X
UR SERIAL NUMBER: AABC07000995
SETTINGS SEND TO RELAY: WEDNESDAY, OCTOBER 07, 2015 13:07:34
DESCRIPTION: (NONE)
TEXT COLOR

IEC 61850 GOOSE ANALOGS INPUTS (continued from last page)

IEC61850 GOOSE Analog Input 7 Default Value	1000.000
IEC61850 GOOSE Analog Input 7 Mode	Default Value
IEC61850 GOOSE Analog Input 7 Units	
IEC61850 GOOSE Analog Input 7 PU Base	1.000
IEC61850 GOOSE Analog Input 8 Default Value	1000.000
IEC61850 GOOSE Analog Input 8 Mode	Default Value
IEC61850 GOOSE Analog Input 8 Units	
IEC61850 GOOSE Analog Input 8 PU Base	1.000
IEC61850 GOOSE Analog Input 9 Default Value	1000.000
IEC61850 GOOSE Analog Input 9 Mode	Default Value
IEC61850 GOOSE Analog Input 9 Units	
IEC61850 GOOSE Analog Input 9 PU Base	1.000
IEC61850 GOOSE Analog Input 10 Default Value	1000.000
IEC61850 GOOSE Analog Input 10 Mode	Default Value
IEC61850 GOOSE Analog Input 10 Units	
IEC61850 GOOSE Analog Input 10 PU Base	1.000
IEC61850 GOOSE Analog Input 11 Default Value	1000.000
IEC61850 GOOSE Analog Input 11 Mode	Default Value
IEC61850 GOOSE Analog Input 11 Units	
IEC61850 GOOSE Analog Input 11 PU Base	1.000
IEC61850 GOOSE Analog Input 12 Default Value	1000.000
IEC61850 GOOSE Analog Input 12 Mode	Default Value
IEC61850 GOOSE Analog Input 12 Units	
IEC61850 GOOSE Analog Input 12 PU Base	1.000
IEC61850 GOOSE Analog Input 13 Default Value	1000.000
IEC61850 GOOSE Analog Input 13 Mode	Default Value
IEC61850 GOOSE Analog Input 13 Units	
IEC61850 GOOSE Analog Input 13 PU Base	1.000
IEC61850 GOOSE Analog Input 14 Default Value	1000.000
IEC61850 GOOSE Analog Input 14 Mode	Default Value
IEC61850 GOOSE Analog Input 14 Units	
IEC61850 GOOSE Analog Input 14 PU Base	1.000
IEC61850 GOOSE Analog Input 15 Default Value	1000.000
IEC61850 GOOSE Analog Input 15 Mode	Default Value
IEC61850 GOOSE Analog Input 15 Units	
IEC61850 GOOSE Analog Input 15 PU Base	1.000
IEC61850 GOOSE Analog Input 16 Default Value	1000.000
IEC61850 GOOSE Analog Input 16 Mode	Default Value
IEC61850 GOOSE Analog Input 16 Units	
IEC61850 GOOSE Analog Input 16 PU Base	1.000
IEC61850 GOOSE Analog Input 17 Default Value	1000.000
IEC61850 GOOSE Analog Input 17 Mode	Default Value
IEC61850 GOOSE Analog Input 17 Units	
IEC61850 GOOSE Analog Input 17 PU Base	1.000
IEC61850 GOOSE Analog Input 18 Default Value	1000.000
IEC61850 GOOSE Analog Input 18 Mode	Default Value
IEC61850 GOOSE Analog Input 18 Units	
IEC61850 GOOSE Analog Input 18 PU Base	1.000
IEC61850 GOOSE Analog Input 19 Default Value	1000.000
IEC61850 GOOSE Analog Input 19 Mode	Default Value
IEC61850 GOOSE Analog Input 19 Units	
IEC61850 GOOSE Analog Input 19 PU Base	1.000
IEC61850 GOOSE Analog Input 20 Default Value	1000.000
IEC61850 GOOSE Analog Input 20 Mode	Default Value
IEC61850 GOOSE Analog Input 20 Units	
IEC61850 GOOSE Analog Input 20 PU Base	1.000
IEC61850 GOOSE Analog Input 21 Default Value	1000.000
IEC61850 GOOSE Analog Input 21 Mode	Default Value
IEC61850 GOOSE Analog Input 21 Units	
IEC61850 GOOSE Analog Input 21 PU Base	1.000
IEC61850 GOOSE Analog Input 22 Default Value	1000.000
IEC61850 GOOSE Analog Input 22 Mode	Default Value
IEC61850 GOOSE Analog Input 22 Units	
IEC61850 GOOSE Analog Input 22 PU Base	1.000
IEC61850 GOOSE Analog Input 23 Default Value	1000.000

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DESCRIPTION: (NONE)
TEXT COLOR

IEC 61850 GOOSE ANALOGS INPUTS (continued from last page)

IEC61850 GOOSE Analog Input 23 Mode	Default Value
IEC61850 GOOSE Analog Input 23 Units	
IEC61850 GOOSE Analog Input 23 PU Base	1.000
IEC61850 GOOSE Analog Input 24 Default Value	1000.000
IEC61850 GOOSE Analog Input 24 Mode	Default Value
IEC61850 GOOSE Analog Input 24 Units	
IEC61850 GOOSE Analog Input 24 PU Base	1.000
IEC61850 GOOSE Analog Input 25 Default Value	1000.000
IEC61850 GOOSE Analog Input 25 Mode	Default Value
IEC61850 GOOSE Analog Input 25 Units	
IEC61850 GOOSE Analog Input 25 PU Base	1.000
IEC61850 GOOSE Analog Input 26 Default Value	1000.000
IEC61850 GOOSE Analog Input 26 Mode	Default Value
IEC61850 GOOSE Analog Input 26 Units	
IEC61850 GOOSE Analog Input 26 PU Base	1.000
IEC61850 GOOSE Analog Input 27 Default Value	1000.000
IEC61850 GOOSE Analog Input 27 Mode	Default Value
IEC61850 GOOSE Analog Input 27 Units	
IEC61850 GOOSE Analog Input 27 PU Base	1.000
IEC61850 GOOSE Analog Input 28 Default Value	1000.000
IEC61850 GOOSE Analog Input 28 Mode	Default Value
IEC61850 GOOSE Analog Input 28 Units	
IEC61850 GOOSE Analog Input 28 PU Base	1.000
IEC61850 GOOSE Analog Input 29 Default Value	1000.000
IEC61850 GOOSE Analog Input 29 Mode	Default Value
IEC61850 GOOSE Analog Input 29 Units	
IEC61850 GOOSE Analog Input 29 PU Base	1.000
IEC61850 GOOSE Analog Input 30 Default Value	1000.000
IEC61850 GOOSE Analog Input 30 Mode	Default Value
IEC61850 GOOSE Analog Input 30 Units	
IEC61850 GOOSE Analog Input 30 PU Base	1.000
IEC61850 GOOSE Analog Input 31 Default Value	1000.000
IEC61850 GOOSE Analog Input 31 Mode	Default Value
IEC61850 GOOSE Analog Input 31 Units	
IEC61850 GOOSE Analog Input 31 PU Base	1.000
IEC61850 GOOSE Analog Input 32 Default Value	1000.000
IEC61850 GOOSE Analog Input 32 Mode	Default Value
IEC61850 GOOSE Analog Input 32 Units	
IEC61850 GOOSE Analog Input 32 PU Base	1.000

IEC 61850 GOOSE UINTEGERS INPUTS

IEC61850 GOOSE UInteger Input 1 Default Value	1000
IEC61850 GOOSE UInteger Input 1 Mode	Default Value
IEC61850 GOOSE UInteger Input 2 Default Value	1000
IEC61850 GOOSE UInteger Input 2 Mode	Default Value
IEC61850 GOOSE UInteger Input 3 Default Value	1000
IEC61850 GOOSE UInteger Input 3 Mode	Default Value
IEC61850 GOOSE UInteger Input 4 Default Value	1000
IEC61850 GOOSE UInteger Input 4 Mode	Default Value
IEC61850 GOOSE UInteger Input 5 Default Value	1000
IEC61850 GOOSE UInteger Input 5 Mode	Default Value
IEC61850 GOOSE UInteger Input 6 Default Value	1000
IEC61850 GOOSE UInteger Input 6 Mode	Default Value
IEC61850 GOOSE UInteger Input 7 Default Value	1000
IEC61850 GOOSE UInteger Input 7 Mode	Default Value
IEC61850 GOOSE UInteger Input 8 Default Value	1000
IEC61850 GOOSE UInteger Input 8 Mode	Default Value
IEC61850 GOOSE UInteger Input 9 Default Value	1000
IEC61850 GOOSE UInteger Input 9 Mode	Default Value
IEC61850 GOOSE UInteger Input 10 Default Value	1000
IEC61850 GOOSE UInteger Input 10 Mode	Default Value
IEC61850 GOOSE UInteger Input 11 Default Value	1000
IEC61850 GOOSE UInteger Input 11 Mode	Default Value
IEC61850 GOOSE UInteger Input 12 Default Value	1000
IEC61850 GOOSE UInteger Input 12 Mode	Default Value

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DESCRIPTION: (NONE)
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IEC 61850 GOOSE UINTEGERS INPUTS (continued from last page)

IEC61850 GOOSE UInteger Input 13 Default Value	1000
IEC61850 GOOSE UInteger Input 13 Mode	Default Value
IEC61850 GOOSE UInteger Input 14 Default Value	1000
IEC61850 GOOSE UInteger Input 14 Mode	Default Value
IEC61850 GOOSE UInteger Input 15 Default Value	1000
IEC61850 GOOSE UInteger Input 15 Mode	Default Value
IEC61850 GOOSE UInteger Input 16 Default Value	1000
IEC61850 GOOSE UInteger Input 16 Mode	Default Value