ANEXO III-4 RESULTADOS DE CORTOCIRCUITO INTERCAMBIOS CON C.A.

ÍNDICE GENERAL

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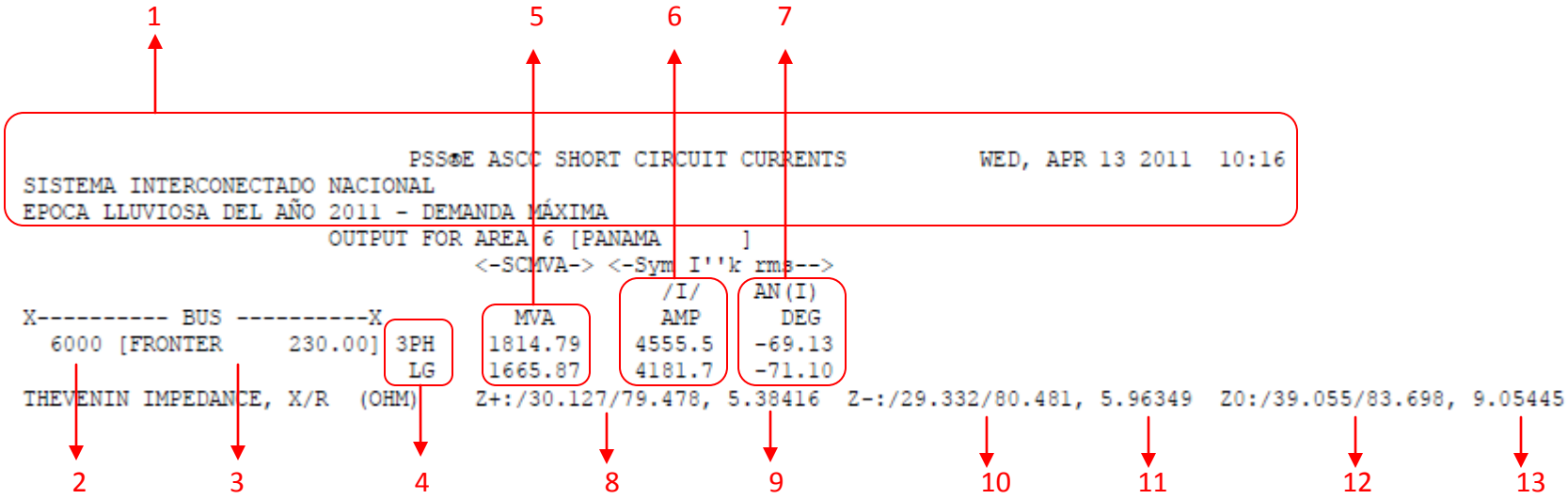
Instructivo de Interpretación a las Salidas del PSS/E



1. Título o identificador del caso en estudio. Muestra la época (lluviosa o seca), el año en estudio y la demanda modelada.
2. Número de bus en el análisis de cortocircuito.
3. Nombre del bus correspondiente al número identificado en (2).
4. Tipo de falla simulada. La superior corresponde a una falla trifásica y la inferior es monofásica (línea a tierra).
5. Potencia de cortocircuito en MVA. (Trifásica superior y monofásica inferior).
6. Corriente de cortocircuito (valor sub-transitorio en rms) en Amperios.
7. Ángulo correspondiente a la corriente de cortocircuito (sólo en coordenadas polares).
8. Impedancia de Thevenin de secuencia positiva en Ohms (Coordenadas polares: Primer valor numérico es el módulo y el segundo es el ángulo).
9. Relación X/R correspondiente a la impedancia de secuencia positiva.

10. Impedancia de Thevenin de secuencia negativa en Ohms (Coordenadas polares: Primer valor numérico es el módulo y el segundo es el ángulo).
11. Relación X/R correspondiente a la impedancia de secuencia negativa.
12. Impedancia de Thevenin de secuencia cero en Ohms (Coordenadas polares: Primer valor numérico es el módulo y el segundo es el ángulo).
13. Relación X/R correspondiente a la impedancia de secuencia cero.

Cortocircuito Año 2011

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                          PSS®E ASCC SHORT CIRCUIT CURRENTS          WED, APR 13 2011  10:16
SISTEMA INTERCONECTADO NACIONAL
EPOCA LLUVIOSA DEL AÑO 2011 - DEMANDA MÁXIMA
                       OUTPUT FOR AREA 6 [PANAMA      ]
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6000 [FRONTER     230.00] 3PH    1814.79    4555.5   -69.13
                            LG    1665.87    4181.7   -71.10
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/30.127/79.478, 5.38416  Z-:/29.332/80.481, 5.96349  Z0:/39.055/83.698, 9.05445

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6001 [PAN230      230.00] 3PH    2734.18    6863.4   -78.79
                            LG    2813.52    7062.6   -84.19
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/19.268/69.692, 2.70225  Z-:/18.577/72.229, 3.12007  Z0:/18.640/83.550, 8.84484

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6003 [PANII230    230.00] 3PH    2694.31    6763.3   -79.08
                            LG    2850.76    7156.0   -83.99
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/19.631/70.638, 2.84575  Z-:/18.937/72.961, 3.26296  Z0:/17.369/83.915, 9.38091

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6005 [CHO230      230.00] 3PH    2307.90    5793.3   -79.37
                            LG    2323.31    5832.0   -84.31
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/22.970/71.609, 3.00777  Z-:/22.108/74.904, 3.70731  Z0:/23.614/82.887, 8.01342

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6008 [LSA230      230.00] 3PH    2321.35    5827.1   -76.01
                            LG    2030.13    5096.1   -79.52
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/23.146/74.239, 3.54314  Z-:/22.525/76.230, 4.08044  Z0:/33.839/81.170, 6.43732
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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6011 [MDN230      230.00] 3PH    2773.04    6960.9   -70.55
                            LG     2589.37    6499.9   -70.80
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/19.458/80.271, 5.83246  Z-:/18.839/81.895, 7.02211  Z0:/24.225/79.639, 5.46952

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6014 [PRO230      230.00] 3PH    1861.29    4672.2   -69.15
                            LG     1779.51    4467.0   -71.41
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/29.323/79.671, 5.48667  Z-:/28.400/80.830, 6.19501  Z0:/34.359/84.784, 10.95466

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6096 [FOR230      230.00] 3PH    2811.30    7057.0   -70.80
                            LG     3275.55    8222.3   -72.31
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/19.143/81.323, 6.55281  Z-:/18.715/82.506, 7.60146  Z0:/11.455/85.867, 13.83991

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6100 [BAY230      230.00] 3PH    2016.82    5062.7   -82.54
                            LG     2287.44    5742.0   -85.60
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/26.596/77.644, 4.56496  Z-:/25.509/79.069, 5.17767  Z0:/18.417/87.405, 22.06299

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6103 [COP23O      230.00] 3PH    2294.19    5758.9   -80.50
                            LG     2351.64    5903.1   -84.59
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/23.110/72.600, 3.19101  Z-:/22.387/74.523, 3.61141  Z0:/22.354/83.101, 8.26514

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
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  6105 [PAM230      230.00] 3PH    2292.64    5755.0   -79.48
                            LG    2304.59    5785.0   -84.38
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/23.127/71.727, 3.02857  Z-:/22.268/74.997, 3.73131  Z0:/23.863/82.922, 8.05335

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6171 [PAC230      230.00] 3PH    2176.23    5462.8   -81.31
                            LG    2177.86    5466.9   -84.85
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/24.489/74.070, 3.50355  Z-:/23.761/75.763, 3.94115  Z0:/25.324/82.771, 7.88344

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6178 [EST230      230.00] 3PH    2467.13    6193.0   -72.03
                            LG    2691.43    6756.1   -73.22
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/21.840/81.512, 6.70064  Z-:/21.447/82.539, 7.63587  Z0:/16.785/84.477, 10.34153

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6179 [GUA230      230.00] 3PH    2584.32    6487.2   -71.94
                            LG    2793.53    7012.4   -72.96
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/20.849/81.429, 6.63499  Z-:/20.456/82.504, 7.60022  Z0:/16.565/83.640, 8.97204

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6182 [VEL230      230.00] 3PH    2604.66    6538.3   -73.05
                            LG    2005.16    5033.4   -72.63
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/20.798/78.109, 4.74904  Z-:/20.298/79.619, 5.45901  Z0:/39.974/76.491, 4.16254

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6240 [LGU 230     230.00] 3PH    1525.38    3829.0   -79.04
                            LG    1428.21    3585.1   -82.66
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/34.895/74.034, 3.49531  Z-:/34.253/75.655, 3.91042  Z0:/42.886/82.214, 7.31333

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                                  <-SCMVA-> <-Sym I''k rms-->
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                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6260 [CHA 230     230.00] 3PH    1414.31    3550.2   -64.54
                            LG     1304.76    3275.2   -64.43
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/38.139/82.035, 7.14660  Z-:/38.114/82.144, 7.24752  Z0:/47.771/81.670, 6.83007

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6263 [ESP230      230.00] 3PH    1752.39    4398.9   -65.21
                            LG     1905.19    4782.4   -66.29
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/30.755/83.494, 8.76917  Z-:/30.674/83.679, 9.02684  Z0:/23.469/87.149, 20.07909

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6330 [BAI230      230.00] 3PH    1572.48    3947.3   -69.03
                            LG     1564.27    3926.7   -71.38
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/34.704/79.884, 5.60472  Z-:/33.799/80.839, 6.20089  Z0:/36.263/85.775, 13.53497

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6340 [CAN 230     230.00] 3PH    2010.88    5047.7   -68.65
                            LG     1832.57    4600.2   -67.04
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/26.738/81.380, 6.59635  Z-:/26.431/81.989, 7.10555  Z0:/34.925/76.857, 4.28265

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6360 [GLA230      230.00] 3PH    2434.48    6111.1   -68.10
                            LG     2491.84    6255.1   -69.72
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/22.213/77.801, 4.62564  Z-:/21.791/78.651, 4.98248  Z0:/21.131/81.910, 7.03530

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6363 [ZAM230      230.00] 3PH    2245.90    5637.7   -64.25
                            LG     2171.05    5449.8   -66.71
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/24.193/74.232, 3.54156  Z-:/23.750/74.837, 3.69005  Z0:/27.234/80.503, 5.97750
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                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6366 [EVA230      230.00] 3PH    2042.49    5127.1   -59.61
                            LG    1918.85    4816.7   -63.54
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/26.672/69.738, 2.70882  Z-:/26.212/70.177, 2.77417  Z0:/32.581/79.706, 5.50614

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                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6380 [BOQIII 230  230.00] 3PH    2126.59    5338.2   -69.80
                            LG    1819.63    4567.7   -69.87
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/25.533/80.242, 5.81455  Z-:/24.842/81.404, 6.61491  Z0:/39.152/79.673, 5.48780

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                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6400 [FRONTCHA    230.00] 3PH    1306.59    3279.8   -64.47
                            LG    1076.01    2701.0   -63.39
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/41.313/81.639, 6.80412  Z-:/41.322/81.721, 6.87201  Z0:/67.898/79.194, 5.23933

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                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6500 [FRONTVEL    230.00] 3PH    1570.81    3943.1   -70.21
                            LG     935.36    2347.9   -55.70
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/34.975/79.401, 5.34401  Z-:/34.517/80.022, 5.68374  Z0:/110.467/55.636, 1.46243

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                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6590 [24DIC230    230.00] 3PH    2363.99    5934.1   -80.44
                            LG    2340.33    5874.7   -84.38
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/22.453/72.559, 3.18300  Z-:/21.749/74.500, 3.60576  Z0:/24.016/82.018, 7.13155
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PSS®E ASCC SHORT CIRCUIT CURRENTS FRI, APR 15 2011 16:47
SISTEMA INTERCONECTADO NACIONAL
EPOCA LLUVIOSA DEL AÑO 2011 - DEMANDA MÁXIMA
OUTPUT FOR AREA 7 [ACANAL]

X---------- BUS ----------X		<-SCMVA-> PU	<-Sym I''k rms--> /I/ PU	AN(I) DEG
6002 [PAN115	115.00] 3PH	25.82	25.8161	-79.14
	LG	28.24	28.2411	-84.56

THEVENIN IMPEDANCE, X/R (PU) Z+:0.014894+j0.036266, 2.43500 Z-:0.013133+j0.035718, 2.71966 Z0:0.003245+j0.030885, 9.51721

X---------- BUS ----------X		<-SCMVA-> PU	<-Sym I''k rms--> /I/ PU	AN(I) DEG
6004 [PANII115	115.00] 3PH	18.77	18.7746	-83.26
	LG	14.24	14.2393	-89.36

THEVENIN IMPEDANCE, X/R (PU) Z+:0.016193+j0.051585, 3.18568 Z-:0.014313+j0.050953, 3.55991 Z0:0.011517+j0.107154, 9.30423

X---------- BUS ----------X		<-SCMVA-> PU	<-Sym I''k rms--> /I/ PU	AN(I) DEG
6006 [CHO115	115.00] 3PH	9.96	9.9558	-88.41
	LG	7.87	7.8711	-96.00

THEVENIN IMPEDANCE, X/R (PU) Z+:0.021984+j0.096128, 4.37255 Z-:0.009351+j0.089731, 9.59620 Z0:0.003211+j0.186727, 58.15540

X---------- BUS ----------X		<-SCMVA-> PU	<-Sym I''k rms--> /I/ PU	AN(I) DEG
6009 [LSA115	115.00] 3PH	9.82	9.8235	-83.64
	LG	6.69	6.6900	-90.00

THEVENIN IMPEDANCE, X/R (PU) Z+:0.022251+j0.102119, 4.58939 Z-:0.018899+j0.099681, 5.27451 Z0:0.006412+j0.256141, 39.94660

X---------- BUS ----------X	<-SCMVA-> PU	<-Sym I''k rms--> /I/ PU	AN(I) DEG

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   6012 [MDN115      115.00] 3PH      16.86   16.8603   -72.21
                             LG       15.02   15.0162   -74.51
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.006992+j0.060291, 8.62245  Z-:0.003831+j0.056514, 14.75332  Z0:0.004559+j0.087061,
19.09621

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6015 [PRO115      115.00] 3PH       8.94    8.9360   -74.28
                             LG        9.95    9.9511   -75.90
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.011422+j0.114697, 10.04169  Z-:0.007969+j0.107619, 13.50432  Z0:0.002636+j0.087421,
33.16576

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6018 [CAC115      115.00] 3PH      25.55   25.5490   -79.29
                             LG       27.92   27.9210   -84.39
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.014964+j0.036673, 2.45070  Z-:0.013217+j0.036125, 2.73311  Z0:0.003785+j0.031128,
8.22485

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6019 [CVI115A     115.00] 3PH      17.26   17.2642   -82.37
                             LG       14.93   14.9280   -88.24
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.019536+j0.055003, 2.81541  Z-:0.017696+j0.054470, 3.07820  Z0:0.010690+j0.087286,
8.16480

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6024 [CHI115      115.00] 3PH      13.13   13.1277   -83.83
                             LG        9.12    9.1239   -85.93
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.023093+j0.072711, 3.14863  Z-:0.021536+j0.071966, 3.34160  Z0:0.043500+j0.172614,
3.96816

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                                  <-SCMVA-> <-Sym I''k rms-->
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                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6027 [LOC115A     115.00] 3PH      23.00    23.0013   -79.31
                             LG       24.70    24.6953   -84.90
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.017216+j0.040208, 2.33545  Z-:0.015453+j0.039727, 2.57076  Z0:0.004270+j0.036564,
8.56214

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6032 [MAR115A     115.00] 3PH      18.70    18.7040   -80.42
                             LG       18.54    18.5363   -85.43
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.020370+j0.049660, 2.43788  Z-:0.018617+j0.049195, 2.64253  Z0:0.009324+j0.056279,
6.03597

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6036 [SMA115      115.00] 3PH      22.99    22.9930   -79.64
                             LG       23.43    23.4273   -84.72
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.016453+j0.040747, 2.47654  Z-:0.014696+j0.040210, 2.73618  Z0:0.006474+j0.042839,
6.61688

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6040 [SFR115      115.00] 3PH      20.55    20.5461   -80.06
                             LG       19.71    19.7061   -86.08
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.018918+j0.045062, 2.38195  Z-:0.017143+j0.044603, 2.60189  Z0:0.008007+j0.056712,
7.08308

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6047 [CLA115      115.00] 3PH       8.66     8.6612   -85.03
                             LG        0.00     0.0000     0.00
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.033612+j0.110030, 3.27353  Z-:0.032057+j0.109323, 3.41028  Z0:0.000000+j1000000.0,
9999.999
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 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6055 [MOS115B     115.00] 3PH      20.63   20.6330   -80.91
                             LG       17.43   17.4304   -86.61
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.017484+j0.045675, 2.61243  Z-:0.015726+j0.045153, 2.87114  Z0:0.012437+j0.076744,
6.17063

 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6057 [TOC115      115.00] 3PH      14.91   14.9140   -84.19
                             LG       10.19   10.1914   -88.77
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.019622+j0.065046, 3.31487  Z-:0.017743+j0.064435, 3.63157  Z0:0.025709+j0.162048,
6.30322

 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6059 [LM1115      115.00] 3PH      21.81   21.8142   -85.84
                             LG       24.53   24.5312   -88.73
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.010060+j0.045126, 4.48550  Z-:0.008628+j0.043717, 5.06706  Z0:0.002059+j0.032739,
15.89989

 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6060 [LM2115      115.00] 3PH      21.90   21.9002   -85.88
                             LG       24.81   24.8073   -88.81
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.009969+j0.044963, 4.51022  Z-:0.008541+j0.043553, 5.09896  Z0:0.001768+j0.031760,
17.96656

 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6066 [FFIELD      115.00] 3PH      16.37   16.3670   -85.17
                             LG       13.07   13.0720   -85.85
```

```
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.014744+j0.059817, 4.05702  Z-:0.013235+j0.058377, 4.41092  Z0:0.024709+j0.107139,
4.33601

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6074 [LMDIST      115.00] 3PH      21.83   21.8328   -85.92
                             LG       24.65   24.6514   -88.83
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.009982+j0.045103, 4.51848  Z-:0.008548+j0.043688, 5.11077  Z0:0.001869+j0.032241,
17.25304

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6087 [CAL115      115.00] 3PH      13.86   13.8625   -70.27
                             LG        6.76    6.7565   -63.18
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.006817+j0.073800, 10.82663  Z-:0.005102+j0.071378, 13.99056  Z0:0.085741+j0.300432,
3.50393

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6088 [LES115      115.00] 3PH      11.90   11.9017   -69.38
                             LG        5.63    5.6286   -62.47
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.008556+j0.086084, 10.06112  Z-:0.007055+j0.083867, 11.88726  Z0:0.103941+j0.365632,
3.51767

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6092 [LVA115      115.00] 3PH      13.11   13.1134   -69.89
                             LG        6.31    6.3147   -62.88
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.007437+j0.077985, 10.48621  Z-:0.005805+j0.075639, 13.03076  Z0:0.092041+j0.322932,
3.50855

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
```

```
   6170 [CPA115      115.00] 3PH      14.75   14.7504   -85.21
                             LG       14.83   14.8300   -87.69
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.015586+j0.066645, 4.27597  Z-:0.014352+j0.065671, 4.57557  Z0:0.007912+j0.068373,
8.64143

 ---------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6173 [STR115      115.00] 3PH      19.45   19.4503   -85.84
                             LG       16.53   16.5273   -85.97
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.011619+j0.050551, 4.35081  Z-:0.010182+j0.049279, 4.83973  Z0:0.018819+j0.078735,
4.18380

 ---------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6174 [PM115-1A    115.00] 3PH      12.77   12.7684   -87.06
                             LG        9.73    9.7340   -86.06
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.017705+j0.077199, 4.36024  Z-:0.016172+j0.076303, 4.71830  Z0:0.041096+j0.149029,
3.62634

 ---------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6175 [PM115-2A    115.00] 3PH      12.77   12.7684   -87.06
                             LG        9.73    9.7340   -86.06
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.017705+j0.077199, 4.36024  Z-:0.016172+j0.076303, 4.71830  Z0:0.041096+j0.149029,
3.62634

 ---------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6210 [TIN115      115.00] 3PH      19.35   19.3548   -81.39
                             LG       14.85   14.8457   -88.06
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.018218+j0.048835, 2.68058  Z-:0.016462+j0.048314, 2.93487  Z0:0.013910+j0.100839,
7.24936

 ---------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
```

```
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6211 [PM115-9     115.00] 3PH      18.48    18.4757   -81.79
                             LG        0.00     0.0000     0.00
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.018739+j0.051302, 2.73775  Z-:0.016981+j0.050780, 2.99033  Z0:0.000000+j1000000.0,
9999.999

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6230 [CBA115      115.00] 3PH      22.06    22.0623   -79.54
                             LG      22.22    22.2229   -85.18
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.017896+j0.041897, 2.34111  Z-:0.016129+j0.041428, 2.56854  Z0:0.006751+j0.046093,
6.82730

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6261 [CHA 115     115.00] 3PH       5.20     5.1957   -69.18
                             LG       6.06     6.0632   -69.54
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.014584+j0.195003, 13.37066  Z-:0.014441+j0.194980, 13.50135  Z0:0.005318+j0.111549,
20.97436

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6270 [CAT 115     115.00] 3PH      21.83    21.8267   -85.73
                             LG      24.49    24.4932   -88.34
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.010120+j0.045095, 4.45591  Z-:0.008696+j0.043685, 5.02385  Z0:0.002722+j0.032884,
12.07964

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6280 [GIR 115     115.00] 3PH      13.67    13.6706   -85.44
                             LG      14.40    14.4001   -88.19
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.016272+j0.072045, 4.42746  Z-:0.015080+j0.071091, 4.71415  Z0:0.005097+j0.064036,
12.56253
```

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 ------------------------------------------------------------------------------------------------------------------
                                 <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6290 [CATII 11    115.00] 3PH      20.93   20.9266   -85.88
                             LG       24.14   24.1384   -89.48
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.010486+j0.047042, 4.48601  Z-:0.009054+j0.045649, 5.04204  Z0:0.000000+j0.031127,
9999.999

 ------------------------------------------------------------------------------------------------------------------
                                 <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6331 [BAI115      115.00] 3PH       6.09    6.0875   -72.05
                             LG       0.01    0.0110   104.74
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.009299+j0.166450, 17.90058  Z-:0.008269+j0.165314, 19.99248  Z0:0.021460-j277.71188,
9999.999
 ------------------------------------------------------------------------------------------------------------------
                                 <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6332 [BAM115      115.00] 3PH       4.62    4.6234   -67.99
                             LG       0.01    0.0110   107.65
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.016633+j0.218891, 13.16039  Z-:0.015846+j0.217950, 13.75424  Z0:0.021460-j277.71188,
9999.999
 ------------------------------------------------------------------------------------------------------------------
                                 <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6350 [PM115-8     115.00] 3PH      19.01   19.0080   -81.21
                             LG       17.67   17.6712   -85.49
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.018951+j0.049538, 2.61404  Z-:0.017199+j0.049034, 2.85103  Z0:0.012907+j0.065402,
5.06709

 ------------------------------------------------------------------------------------------------------------------
                                 <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6550 [CHAZ115     115.00] 3PH       8.88    8.8764   -74.23
                             LG       12.28   12.2809   -75.47
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.011597+j0.115457, 9.95570  Z-:0.008144+j0.108379, 13.30747  Z0:0.000000+j0.027000,
9999.999
```

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 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6580 [LBO115      115.00] 3PH      15.80   15.8031   -82.87
                             LG        0.00    0.0000     0.00
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.020854+j0.060237, 2.88858  Z-:0.019013+j0.059708, 3.14033  Z0:0.000000+j1000000.0,
9999.999

 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6123 [MIR115      115.00] 3PH      15.65   15.6531   -82.96
                             LG      14.53   14.5251   -85.98
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.019828+j0.062320, 3.14305  Z-:0.018368+j0.061808, 3.36495  Z0:0.015229+j0.080442,
5.28203
```

Cortocircuito Año 2012

```
                            PSS®E ASCC SHORT CIRCUIT CURRENTS          FRI, APR 15 2011  16:43
 SISTEMA INTERCONECTADO NACIONAL
 EPOCA LLUVIOSA DEL AÑO 2012 - DEMANDA MÁXIMA
                          OUTPUT FOR AREA 6 [PANAMA      ]
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6000 [FRONTER     230.00] 3PH      22.93   22.9257   -60.13
                             LG      21.61   21.6119   -60.84
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.007005+j0.043914, 6.26870  Z-:0.006391+j0.043196, 6.75902  Z0:0.007144+j0.052910,
7.40646

 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6001 [PAN230      230.00] 3PH      26.01   26.0131   -73.64
                             LG      28.06   28.0611   -79.67
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.014866+j0.035439, 2.38387  Z-:0.012421+j0.034879, 2.80806  Z0:0.003487+j0.032033,
9.18578

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```
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6003 [PANII230    230.00] 3PH      25.24   25.2431   -74.15
                             LG       27.53   27.5328   -79.61
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.014739+j0.037067, 2.51489  Z-:0.012379+j0.036391, 2.93966  Z0:0.003540+j0.031889,
9.00830

 ------------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6005 [CHO230      230.00] 3PH      22.77   22.7707   -74.02
                             LG       23.82   23.8162   -79.65
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.015155+j0.041249, 2.72182  Z-:0.011749+j0.040696, 3.46378  Z0:0.004743+j0.040065,
8.44780

 ------------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6008 [LSA230      230.00] 3PH      24.46   24.4621   -68.72
                             LG       21.79   21.7858   -72.68
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.011427+j0.039384, 3.44653  Z-:0.009708+j0.038859, 4.00291  Z0:0.008120+j0.056762,
6.99073

 ------------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6011 [MDN230      230.00] 3PH      34.71   34.7083   -60.45
                             LG       29.90   29.8982   -59.52
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.004385+j0.028751, 6.55673  Z-:0.003634+j0.028095, 7.73096  Z0:0.008874+j0.043023,
4.84829

 ------------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6014 [PRO230      230.00] 3PH      24.21   24.2086   -59.90
                             LG       23.94   23.9355   -60.92
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.006272+j0.041591, 6.63072  Z-:0.005563+j0.040714, 7.31881  Z0:0.004944+j0.044210,
8.94256
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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6096 [FOR230      230.00] 3PH      37.06   37.0616   -60.74
                             LG       40.92   40.9169   -60.32
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.003391+j0.027029, 7.97179  Z-:0.002936+j0.026637, 9.07199  Z0:0.003423+j0.019711,
5.75796

 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6100 [BAY230      230.00] 3PH      17.56   17.5603   -79.13
                             LG       20.70   20.6964   -82.71
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.014942+j0.056136, 3.75685  Z-:0.012502+j0.054097, 4.32699  Z0:0.001593+j0.034752,
21.81773

 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6103 [COP23O      230.00] 3PH      21.45   21.4513   -76.02
                             LG       22.63   22.6344   -80.72
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.015736+j0.044346, 2.81819  Z-:0.013376+j0.043503, 3.25225  Z0:0.005148+j0.041476,
8.05619

 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6105 [PAM230      230.00] 3PH      22.63   22.6300   -74.13
                             LG       23.61   23.6093   -79.73
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.015156+j0.041549, 2.74148  Z-:0.011756+j0.040996, 3.48706  Z0:0.004813+j0.040611,
8.43770

 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6171 [PAC230      230.00] 3PH      20.27   20.2707   -77.16
                             LG       20.91   20.9065   -81.33
```

```
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.015448+j0.047606, 3.08172  Z-:0.013191+j0.046639, 3.53581  Z0:0.006090+j0.047139,
7.73995

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6178 [EST230      230.00] 3PH      33.41   33.4064   -61.15
                               LG     33.79   33.7886   -61.52
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.003787+j0.029932, 7.90463  Z-:0.003365+j0.029620, 8.80252  Z0:0.003511+j0.029298,
8.34377

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6179 [GUA230      230.00] 3PH      35.36   35.3610   -61.19
                               LG     35.45   35.4512   -61.27
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.003617+j0.028275, 7.81671  Z-:0.003192+j0.027961, 8.75895  Z0:0.003894+j0.028388,
7.28994

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6182 [VEL230      230.00] 3PH      30.61   30.6055   -64.01
                               LG     21.84   21.8387   -63.00
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.006490+j0.032289, 4.97508  Z-:0.005624+j0.031848, 5.66263  Z0:0.017572+j0.071110,
4.04678

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6240 [LGU 230     230.00] 3PH      15.37   15.3728   -73.16
                               LG     14.56   14.5560   -76.88
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.017971+j0.062519, 3.47895  Z-:0.015662+j0.062049, 3.96171  Z0:0.010328+j0.076793,
7.43513

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
```

```
   6260 [CHA 230     230.00] 3PH      20.59   20.5870   -58.30
                             LG       18.43   18.4268   -55.85
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.007121+j0.049101, 6.89532  Z-:0.006985+j0.049038, 7.01998  Z0:0.016762+j0.065264,
3.89363

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6263 [ESP230      230.00] 3PH      21.75   21.7467   -57.50
                             LG       23.63   23.6334   -54.09
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.005696+j0.046683, 8.19544  Z-:0.005547+j0.046574, 8.39560  Z0:0.012113+j0.034448,
2.84395

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6330 [BAI230      230.00] 3PH      20.90   20.8963   -59.59
                             LG       23.41   23.4114   -61.34
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.006794+j0.048263, 7.10402  Z-:0.006168+j0.047462, 7.69426  Z0:0.001264+j0.034006,
26.90277

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6340 [CAN 230     230.00] 3PH      19.23   19.2316   -59.47
                             LG       18.01   18.0056   -53.94
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.007863+j0.052132, 6.62961  Z-:0.007541+j0.051906, 6.88298  Z0:0.025787+j0.059798,
2.31890

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6360 [GLA230      230.00] 3PH      32.67   32.6693   -56.02
                             LG       30.73   30.7268   -57.27
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.006542+j0.030305, 4.63239  Z-:0.006161+j0.029976, 4.86525  Z0:0.006047+j0.036815,
6.08825

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
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```
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6363 [ZAM230      230.00] 3PH      28.79   28.7894   -49.81
                             LG       25.68   25.6806   -53.02
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.010977+j0.033606, 3.06157  Z-:0.010637+j0.033265, 3.12719  Z0:0.008920+j0.048041,
5.38591

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6366 [EVA230      230.00] 3PH      25.25   25.2460   -44.00
                             LG       22.09   22.0929   -49.38
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.016276+j0.037002, 2.27338  Z-:0.015950+j0.036658, 2.29835  Z0:0.011431+j0.057863,
5.06204

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6380 [BOQIII 230  230.00] 3PH      26.26   26.2557   -59.78
                             LG       21.41   21.4076   -58.56
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.005736+j0.038197, 6.65922  Z-:0.005104+j0.037533, 7.35353  Z0:0.013266+j0.064329,
4.84920

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6400 [FRONTCHA    230.00] 3PH      18.32   18.3162   -58.66
                             LG       14.13   14.1343   -55.50
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.008401+j0.055148, 6.56408  Z-:0.008309+j0.055145, 6.63706  Z0:0.027740+j0.101971,
3.67588

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6450 [LSA CAP 230 230.00] 3PH      24.46   24.4621   -68.72
                             LG       21.79   21.7858   -72.68
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.011427+j0.039384, 3.44653  Z-:0.009708+j0.038859, 4.00291  Z0:0.008120+j0.056762,
6.99073
```

```
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6500 [FRONTVEL    230.00] 3PH      18.20   18.1971   -62.02
                             LG       9.84    9.8425   -45.86
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.009568+j0.055428, 5.79284  Z-:0.009163+j0.055111, 6.01482  Z0:0.117767+j0.169991,
1.44346

                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6590 [24DIC230    230.00] 3PH      22.12   22.1200   -75.94
                             LG      22.58   22.5818   -80.55
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.015312+j0.043040, 2.81082  Z-:0.013006+j0.042227, 3.24676  Z0:0.006369+j0.044418,
6.97360

                              PSS®E ASCC SHORT CIRCUIT CURRENTS          FRI, APR 15 2011  16:44

 SISTEMA INTERCONECTADO NACIONAL
 EPOCA LLUVIOSA DEL AÑO 2012 - DEMANDA MÁXIMA
                         OUTPUT FOR AREA 7 [ACANAL      ]
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6002 [PAN115      115.00] 3PH      25.29   25.2915   -74.13
                             LG      28.38   28.3824   -80.01
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.016195+j0.035964, 2.22071  Z-:0.013964+j0.035552, 2.54602  Z0:0.003053+j0.028557,
9.35302

                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6004 [PANII115    115.00] 3PH      18.01   18.0106   -79.01
                             LG      13.89   13.8869   -85.95
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.018116+j0.052423, 2.89368  Z-:0.015787+j0.051961, 3.29144  Z0:0.011424+j0.106607,
9.33185

                                  <-SCMVA-> <-Sym I''k rms-->
```

```
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6006 [CHO115      115.00] 3PH      12.27   12.2749   -81.94
                             LG       10.39   10.3899   -90.26
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.021128+j0.077370, 3.66199  Z-:0.010552+j0.074193, 7.03155  Z0:0.002755+j0.130604,
47.40920

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6009 [LSA115      115.00] 3PH      12.45   12.4467   -75.35
                             LG        8.97    8.9684   -81.35
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.017520+j0.079981, 4.56510  Z-:0.014906+j0.078516, 5.26747  Z0:0.005302+j0.180310,
34.00609

 ---------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6012 [MDN115      115.00] 3PH      18.44   18.4420   -61.44
                             LG       15.86   15.8566   -63.21
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.005503+j0.054884, 9.97321  Z-:0.002872+j0.051176, 17.81935  Z0:0.004912+j0.085941,
17.49557
---------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6015 [PRO115      115.00] 3PH       9.95    9.9527   -64.71
                             LG       11.02   11.0200   -65.88
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.007613+j0.101842, 13.37819  Z-:0.005182+j0.096174, 18.56012  Z0:0.002207+j0.078282,
35.46962

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6018 [CAC115      115.00] 3PH      25.01   25.0136   -74.33
                             LG       28.02   28.0200   -79.85
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.016273+j0.036400, 2.23683  Z-:0.014060+j0.035988, 2.55964  Z0:0.003654+j0.028840,
7.89329

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6019 [CVI115A     115.00] 3PH      16.64   16.6359   -78.20
                             LG       14.55   14.5520   -84.72
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.021385+j0.055621, 2.60092  Z-:0.019104+j0.055267, 2.89303  Z0:0.010735+j0.086960,
8.10032

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6024 [CHI115      115.00] 3PH      12.74   12.7356   -80.24
                             LG        8.96    8.9644   -82.90
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.024796+j0.073575, 2.96728  Z-:0.022784+j0.072900, 3.19966  Z0:0.043464+j0.171665,
3.94957

 ------------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6027 [LOC115A     115.00] 3PH      22.47   22.4728   -74.53
                             LG       24.50   24.5025   -80.60
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.018598+j0.039934, 2.14721  Z-:0.016385+j0.039613, 2.41764  Z0:0.004290+j0.035124,
8.18830
------------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6032 [MAR115A     115.00] 3PH      18.35   18.3538   -75.96
                             LG       18.35   18.3540   -81.46
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.021656+j0.049197, 2.27175  Z-:0.019462+j0.048895, 2.51233  Z0:0.009417+j0.055041,
5.84475

 ------------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6036 [SMA115      115.00] 3PH      22.55   22.5510   -74.83
                             LG       23.42   23.4221   -80.42
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.017753+j0.040430, 2.27742  Z-:0.015527+j0.040033, 2.57821  Z0:0.006376+j0.040757,
6.39207
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 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6040 [SFR115      115.00] 3PH      20.00   20.0040   -75.50
                             LG       19.37   19.3748   -82.14
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.020417+j0.044960, 2.20207  Z-:0.018198+j0.044672, 2.45474  Z0:0.008102+j0.056005,
6.91209

 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6047 [CLA115      115.00] 3PH       8.46    8.4574   -81.76
                             LG       0.00    0.0000     0.00
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.035335+j0.110812, 3.13601  Z-:0.033331+j0.110184, 3.30571  Z0:0.000000+j1000000.0,
9999.999

 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6055 [MOS115B     115.00] 3PH      20.26   20.2622   -76.26
                             LG       17.33   17.3268   -82.65
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.018796+j0.045338, 2.41210  Z-:0.016573+j0.044960, 2.71278  Z0:0.012444+j0.075113,
6.03610
------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6057 [TOC115      115.00] 3PH      14.40   14.4025   -80.24
                             LG       9.96    9.9586   -85.59
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.021522+j0.065728, 3.05399  Z-:0.019201+j0.065294, 3.40050  Z0:0.025670+j0.161616,
6.29580

 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6059 [LM1115      115.00] 3PH      19.97   19.9692   -82.22
                             LG       22.96   22.9561   -85.53
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.012321+j0.048453, 3.93244  Z-:0.010399+j0.046939, 4.51368  Z0:0.002077+j0.032699,
15.74212
```

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 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6060 [LM2115      115.00] 3PH      20.05   20.0483   -82.26
                             LG       23.21   23.2060   -85.60
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.012217+j0.048280, 3.95191  Z-:0.010302+j0.046765, 4.53948  Z0:0.001786+j0.031722,
17.76593

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6066 [FFIELD      115.00] 3PH      15.28   15.2829   -81.93
                             LG       12.55   12.5525   -83.31
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.017098+j0.063014, 3.68542  Z-:0.015093+j0.061479, 4.07335  Z0:0.024727+j0.107099,
4.33123

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6074 [LMDIST      115.00] 3PH      19.99   19.9892   -82.29
                             LG       23.07   23.0662   -85.63
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.012236+j0.048423, 3.95730  Z-:0.010314+j0.046903, 4.54755  Z0:0.001887+j0.032202,
17.06845

 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6087 [CAL115      115.00] 3PH      14.84   14.8383   -58.42
                             LG        6.88    6.8761   -50.72
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.005749+j0.068404, 11.89880  Z-:0.004419+j0.066136, 14.96540  Z0:0.086094+j0.299310,
3.47653

 ------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6088 [LES115      115.00] 3PH      12.51   12.5133   -57.31
                             LG        5.69    5.6906   -50.00
```

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 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.007694+j0.081199, 10.55332  Z-:0.006538+j0.079128, 12.10350  Z0:0.104294+j0.364910,
3.49501

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6092 [LVA115      115.00] 3PH      13.94   13.9382   -57.95
                               LG      6.41    6.4095   -50.41
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.006451+j0.072781, 11.28287  Z-:0.005188+j0.070586, 13.60588  Z0:0.092394+j0.321810,
3.48300

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6170 [CPA115      115.00] 3PH      14.17   14.1687   -82.01
                               LG      14.41   14.4107   -84.85
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.017203+j0.068490, 3.98117  Z-:0.015563+j0.067483, 4.33608  Z0:0.007933+j0.068306,
8.61003

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6173 [STR115      115.00] 3PH      18.12   18.1177   -82.29
                               LG      15.83   15.8253   -83.15
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.013731+j0.053362, 3.88612  Z-:0.011814+j0.052020, 4.40330  Z0:0.018846+j0.078585,
4.16996

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6174 [PM115-1A    115.00] 3PH      12.35   12.3515   -83.52
                               LG       9.54    9.5364   -83.08
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.019490+j0.078478, 4.02648  Z-:0.017486+j0.077611, 4.43849  Z0:0.041119+j0.148249,
3.60537

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
```

```
   6175 [PM115-2A    115.00] 3PH      12.35   12.3515   -83.52
                             LG       9.54    9.5364   -83.08
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.019490+j0.078478, 4.02648  Z-:0.017486+j0.077611, 4.43849  Z0:0.041119+j0.148249,
3.60537

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6210 [TIN115      115.00] 3PH      19.01   19.0126   -76.83
                             LG       17.18   17.1839   -84.15
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.019554+j0.048510, 2.48086  Z-:0.017331+j0.048133, 2.77724  Z0:0.006972+j0.071334,
10.23122

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6211 [PM115-9     115.00] 3PH      18.16   18.1564   -77.30
                             LG       0.00    0.0000     0.00
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.020065+j0.050972, 2.54033  Z-:0.017842+j0.050595, 2.83574  Z0:0.000000+j1000000.0,
9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6230 [CBA115      115.00] 3PH      21.53   21.5284   -74.84
                             LG       21.96   21.9634   -81.05
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.019320+j0.041676, 2.15709  Z-:0.017106+j0.041372, 2.41855  Z0:0.006804+j0.044928,
6.60303

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
 X---------- BUS ----------X          PU         PU       DEG
   6261 [CHA 115     115.00] 3PH       5.87    5.8719   -63.88
                             LG       6.81    6.8067   -63.85
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.010943+j0.172989, 15.80860  Z-:0.010806+j0.172931, 16.00286  Z0:0.006814+j0.101756,
14.93304

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                                  <-SCMVA-> <-Sym I''k rms-->
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                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6270 [CAT 115     115.00] 3PH      19.96   19.9632   -82.08
                             LG       22.91   22.9054   -85.14
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.012423+j0.048450, 3.90014  Z-:0.010507+j0.046935, 4.46686  Z0:0.002741+j0.032848,
11.98352

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6280 [GIR 115     115.00] 3PH      13.18   13.1782   -82.33
                             LG       14.01   14.0142   -85.37
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.017832+j0.073846, 4.14127  Z-:0.016245+j0.072859, 4.48498  Z0:0.005115+j0.063991,
12.51074

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6290 [CATII 11    115.00] 3PH      19.24   19.2380   -82.31
                             LG       22.63   22.6277   -86.27
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.012730+j0.050309, 3.95201  Z-:0.010809+j0.048816, 4.51616  Z0:0.000000+j0.031127,
9999.999

 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6331 [BAI115      115.00] 3PH       6.53    6.5334   -61.52
                             LG        0.01    0.0109   116.37
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.005649+j0.154097, 27.27899  Z-:0.005172+j0.153492, 29.67904  Z0:0.021460-j277.71188,
9999.999
 ------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X           PU          PU       DEG
   6332 [BAM115      115.00] 3PH       4.83    4.8320   -56.86
                             LG        0.01    0.0109   119.26
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.014113+j0.208900, 14.80189  Z-:0.013751+j0.208401, 15.15521  Z0:0.021460-j277.71188,
9999.999
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                                  <-SCMVA-> <-Sym I''k rms-->
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                                                  /I/    AN(I)
 X---------- BUS ----------X          PU          PU       DEG
   6350 [PM115-8     115.00] 3PH      18.65   18.6549   -76.72
                             LG       17.55   17.5453   -81.54
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.020253+j0.049175, 2.42803  Z-:0.018047+j0.048821, 2.70517  Z0:0.012898+j0.063732,
4.94103

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X          PU          PU       DEG
   6550 [CHAZ115     115.00] 3PH       9.88    9.8782   -64.65
                             LG       13.44   13.4380   -65.67
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.007788+j0.102602, 13.17515  Z-:0.005357+j0.096934, 18.09565  Z0:0.000000+j0.027000,
9999.999

 ---------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X          PU          PU       DEG
   6580 [LBO115      115.00] 3PH      15.26   15.2590   -78.81
                             LG        0.00    0.0000     0.00
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.022710+j0.060843, 2.67909  Z-:0.020430+j0.060494, 2.96101  Z0:0.000000+j1000000.0,
9999.999

 ---------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
 X---------- BUS ----------X          PU          PU       DEG
   6123 [MIR115      115.00] 3PH      15.42   15.4197   -78.95
                             LG       14.41   14.4081   -82.34
 THEVENIN IMPEDANCE, X/R  (PU)     Z+:0.020948+j0.062128, 2.96585  Z-:0.019094+j0.061720, 3.23238  Z0:0.015286+j0.079254,
5.18485
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Cortocircuito Año 2013

PSS®E ASCC SHORT CIRCUIT CURRENTS SAT, MAY 07 2011 12:40
PLAN DE EXPANSIÓN DEL SISTEMA INTERCONECTADO NACIONAL
BASE DE DATOS REGIONAL - DEMANDA MÁXIMA - ÉPOCA HÚMEDA 2013
OUTPUT FOR AREA 6 [PANAMA]

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6000 [FRONTER	230.00] 3PH	2847.49	7147.8	-55.34
	LG	2456.33	6165.9	-55.58

THEVENIN IMPEDANCE, X/R (OHM) Z+:/18.955/82.032, 7.14411 Z-:/18.744/82.476, 7.57121 Z0:/28.222/82.285, 7.38150

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6001 [PAN230	230.00] 3PH	2438.20	6120.4	-72.34
	LG	2716.69	6819.5	-78.78

THEVENIN IMPEDANCE, X/R (OHM) Z+:/21.822/64.021, 2.05219 Z-:/21.207/67.793, 2.44958 Z0:/16.255/82.668, 7.77222

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6003 [PANII230	230.00] 3PH	2393.71	6008.7	-73.04
	LG	2741.91	6882.8	-78.32

THEVENIN IMPEDANCE, X/R (OHM) Z+:/22.423/65.413, 2.18553 Z-:/21.814/68.881, 2.58905 Z0:/14.852/81.350, 6.57306

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6005 [CHO230	230.00] 3PH	2053.41	5154.5	-72.48
	LG	2223.11	5580.5	-79.02

THEVENIN IMPEDANCE, X/R (OHM) Z+:/25.642/66.372, 2.28590 Z-:/24.867/71.226, 2.94185 Z0:/21.043/82.913, 8.04360

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6008 [LSA230	230.00] 3PH	2428.94	6097.2	-65.80
	LG	2334.79	5860.8	-70.35

THEVENIN IMPEDANCE, X/R (OHM) Z+:/21.925/72.452, 3.16240 Z-:/21.545/74.895, 3.70498 Z0:/25.168/82.772, 7.88460

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6011 [MDN230      230.00] 3PH    3814.15    9574.4   -55.99
                            LG    3169.44    7956.0   -54.83
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/14.000/81.427, 6.63294  Z-:/13.713/82.663, 7.76587  Z0:/22.861/78.106, 4.74767

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6014 [PRO230      230.00] 3PH    3010.37    7556.7   -55.02
                            LG    2738.72    6874.8   -55.60
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/17.908/82.569, 7.66708  Z-:/17.635/83.145, 8.31826  Z0:/23.511/83.590, 8.90091

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6096 [FOR230      230.00] 3PH    3971.71    9969.9   -56.39
                            LG    4306.99   10811.5   -55.83
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/13.456/82.849, 7.97045  Z-:/13.293/83.659, 8.99883  Z0:/10.492/79.838, 5.57892

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6100 [BAY230      230.00] 3PH    1567.75    3935.4   -78.39
                            LG    1889.06    4741.9   -82.39
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/34.628/72.238, 3.12170  Z-:/33.692/74.416, 3.58542  Z0:/18.330/87.194, 20.40602

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6103 [COP23O      230.00] 3PH    2029.63    5094.8   -75.22
                            LG    2215.61    5561.7   -80.16
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/26.503/67.815, 2.45222  Z-:/25.889/70.749, 2.86340  Z0:/20.804/81.565, 6.74322

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
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X---------- BUS ----------X          MVA        AMP      DEG
  6105 [PAM230      230.00] 3PH    2038.09    5116.1   -72.61
                            LG     2201.72    5526.8   -79.12
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/25.835/66.508, 2.30072  Z-:/25.064/71.328, 2.95915  Z0:/21.341/82.911, 8.04153

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6171 [PAC230      230.00] 3PH    1911.03    4797.1   -76.53
                            LG     2031.85    5100.4   -81.11
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/28.282/69.488, 2.67294  Z-:/27.671/72.114, 3.09868  Z0:/24.167/81.673, 6.83236

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6178 [EST230      230.00] 3PH    3526.08    8851.2   -57.01
                            LG     3515.67    8825.1   -57.30
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/15.121/82.783, 7.89640  Z-:/14.992/83.480, 8.75009  Z0:/15.385/82.961, 8.09867

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6179 [GUA230      230.00] 3PH    3745.85    9402.9   -57.05
                            LG     3700.52    9289.1   -57.04
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/14.234/82.700, 7.80603  Z-:/14.105/83.447, 8.70459  Z0:/14.890/81.965, 7.08385

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6182 [VEL230      230.00] 3PH    3232.52    8114.3   -60.21
                            LG     2480.67    6227.0   -59.48
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/16.459/78.249, 4.80741  Z-:/16.250/79.669, 5.48571  Z0:/31.656/76.036, 4.02166

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6240 [LGU 230     230.00] 3PH    1497.02    3757.8   -71.43
                            LG     1463.41    3673.5   -75.75
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THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/35.220/72.332, 3.13956  Z-:/34.803/74.585, 3.62670  Z0:/38.385/82.491, 7.58601

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6260 [CHA 230     230.00] 3PH    2269.78    5697.7   -54.37
                              LG    2007.87    5040.2   -51.97
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/23.863/82.415, 7.50912  Z-:/23.838/82.547, 7.64429  Z0:/33.334/76.495, 4.16383

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6263 [ESP230      230.00] 3PH    2320.69    5825.4   -53.29
                              LG    2491.17    6253.4   -49.73
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/23.404/83.344, 8.56946  Z-:/23.361/83.491, 8.76524  Z0:/18.970/70.781, 2.86859

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6330 [BAI230      230.00] 3PH    2465.65    6189.3   -54.33
                              LG    2632.88    6609.1   -55.97
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/21.866/82.752, 7.86318  Z-:/21.618/83.166, 8.34440  Z0:/17.995/87.855, 26.69531

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6340 [CAN 230     230.00] 3PH    2008.22    5041.1   -55.28
                              LG    1856.87    4661.1   -49.55
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/26.725/81.507, 6.69698  Z-:/26.630/81.795, 6.93482  Z0:/34.075/66.558, 2.30618

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6360 [GLA230      230.00] 3PH    3432.93    8617.4   -51.40
                              LG    3181.84    7987.1   -52.78
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/15.607/77.333, 4.44918  Z-:/15.455/77.894, 4.66221  Z0:/19.469/80.480, 5.96299

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6363 [ZAM230      230.00] 3PH    2994.66    7517.2   -44.85
                            LG     2638.23    6622.5   -48.39
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/17.979/71.085, 2.91828  Z-:/17.809/71.457, 2.98125  Z0:/25.583/79.323, 5.30396

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6366 [EVA230      230.00] 3PH    2606.91    6543.9   -38.92
                            LG     2258.75    5670.0   -44.72
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/20.708/65.312, 2.17536  Z-:/20.528/65.570, 2.20139  Z0:/30.937/78.688, 4.99916

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6380 [BOQIII 230  230.00] 3PH    3072.77    7713.3   -54.91
                            LG     2325.28    5837.0   -53.16
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/17.472/82.108, 7.21401  Z-:/17.242/82.746, 7.85639  Z0:/34.597/78.270, 4.81612

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6400 [FRONTCHA    230.00] 3PH    1990.52    4996.6   -54.74
                            LG     1506.57    3781.8   -51.50
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/27.194/81.879, 7.00833  Z-:/27.192/81.968, 7.08668  Z0:/53.581/75.306, 3.81349

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6430 [ANTON230    230.00] 3PH    1236.48    3103.8   -78.06
                            LG     1599.75    4015.7   -78.99
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/43.530/79.556, 5.42510  Z-:/43.300/80.843, 6.20394  Z0:/14.119/82.271, 7.36813

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
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  6450 [LSA CAP 230 230.00] 3PH    2428.94    6097.2   -65.80
                            LG     2334.79    5860.8   -70.35
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/21.925/72.452, 3.16240  Z-:/21.545/74.895, 3.70498  Z0:/25.168/82.772, 7.88460

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6500 [FRONTDOM    230.00] 3PH    2553.10    6408.8   -57.95
                            LG     2785.14    6991.3   -57.13
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/21.258/82.537, 7.63357  Z-:/21.204/82.750, 7.86026  Z0:/16.020/79.257, 5.27056

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6590 [24DIC230    230.00] 3PH    2094.30    5257.2   -75.13
                            LG     2220.05    5572.8   -80.01
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/25.711/67.749, 2.44421  Z-:/25.112/70.708, 2.85687  Z0:/22.255/80.449, 5.94338

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6680 [BFRIO230    230.00] 3PH    2684.21    6737.9   -47.47
                            LG     2360.96    5926.5   -50.50
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/20.146/75.136, 3.76767  Z-:/19.853/75.515, 3.87091  Z0:/28.832/82.119, 7.22462

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6690 [DOM230      230.00] 3PH    2513.32    6309.0   -58.15
                            LG     3106.27    7797.4   -58.18
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/21.601/82.817, 7.93525  Z-:/21.547/83.033, 8.18273  Z0:/9.286/82.455, 7.54980

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6691 [ALTO230     230.00] 3PH    2296.25    5764.1   -52.09
                            LG     2920.67    7331.5   -53.54
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/23.707/76.827, 4.27247  Z-:/23.643/77.001, 4.33180  Z0:/8.653/85.741, 13.42821
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                                 <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6695 [PANDO230    230.00] 3PH    1864.50    4680.3   -58.01
                            LG     2420.88    6076.9   -58.42
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/29.121/82.966, 8.10455  Z-:/29.069/83.117, 8.28388  Z0:/9.103/85.506, 12.72300

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                                 <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6698 [MLIRIO230   230.00] 3PH    2072.27    5201.9   -58.08
                            LG     2766.21    6943.8   -58.55
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/26.199/83.034, 8.18494  Z-:/26.147/83.202, 8.38899  Z0:/6.545/86.605, 16.85681



                            PSS®E ASCC SHORT CIRCUIT CURRENTS          SAT, MAY 07 2011  12:41
PLAN DE EXPANSIÓN DEL SISTEMA INTERCONECTADO NACIONAL
BASE DE DATOS REGIONAL - DEMANDA MÁXIMA - ÉPOCA HÚMEDA 2013
                        OUTPUT FOR AREA 7 [ACANAL      ]
                                 <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6002 [PAN115      115.00] 3PH    2400.05   12049.3   -72.80
                            LG     2740.07   13756.4   -79.50
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.552/62.399, 1.91274  Z-:/5.421/65.734, 2.21829  Z0:/3.787/83.856, 9.29019

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                                 <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6004 [PANII115    115.00] 3PH    1947.34    9776.5   -77.72
                            LG     1519.34    7627.8   -85.86
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.850/67.928, 2.46612  Z-:/6.735/70.616, 2.84213  Z0:/12.955/83.197, 8.38231

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                                 <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6006 [CHO115      115.00] 3PH    1310.08    6577.1   -79.87
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                              LG    1076.52    5404.6   -90.02
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.925/71.273, 2.94973  Z-:/9.384/78.686, 4.99812  Z0:/17.231/88.746, 45.69555

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6009 [LSA115      115.00] 3PH    1324.99    6652.0   -72.46
                              LG     943.72    4737.9   -79.41
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/10.222/76.442, 4.14676  Z-:/10.021/78.243, 4.80477  Z0:/23.026/88.714, 44.52843

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6012 [MDN115      115.00] 3PH    1929.51    9687.0   -56.90
                              LG    1627.91    8172.8   -58.63
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.982/84.372, 10.14782  Z-:/6.518/86.921, 18.59066  Z0:/11.331/86.701, 17.34770

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6015 [PRO115      115.00] 3PH    1136.96    5708.0   -59.33
                              LG    1203.99    6044.5   -60.18
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/11.797/86.659, 17.12767  Z-:/11.273/87.613, 23.99253  Z0:/10.354/88.379, 35.33072

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6018 [CAC115      115.00] 3PH    2377.30   11935.1   -73.03
                              LG    2707.66   13593.7   -79.39
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.604/62.583, 1.92778  Z-:/5.475/65.859, 2.23129  Z0:/3.834/82.734, 7.84257

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6019 [CVI115A     115.00] 3PH    1717.38    8622.0   -77.49
                              LG    1508.78    7574.7   -84.97
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.720/66.371, 2.28578  Z-:/7.614/68.753, 2.57190  Z0:/11.251/82.432, 7.52679
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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6024 [CHI115      115.00] 3PH    1278.50    6418.6   -80.46
                            LG     902.35    4530.2   -84.09
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/10.325/69.629, 2.69314  Z-:/10.209/71.166, 2.93177  Z0:/23.403/75.777, 3.94534

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6027 [LOC115A     115.00] 3PH    2161.77   10853.0   -73.45
                            LG     2392.59   12011.9   -80.37
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.120/61.858, 1.86950  Z-:/6.001/64.850, 2.12989  Z0:/4.670/82.988, 8.13054

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6032 [MAR115A     115.00] 3PH    1778.95    8931.1   -75.33
                            LG     1806.60    9069.9   -81.74
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.426/63.458, 2.00201  Z-:/7.318/65.937, 2.23942  Z0:/7.379/80.263, 5.82787

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6036 [SMA115      115.00] 3PH    2155.89   10823.5   -73.79
                            LG     2279.80   11445.6   -80.31
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.170/63.216, 1.98101  Z-:/6.046/66.223, 2.26974  Z0:/5.446/81.075, 6.36742

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6040 [SFR115      115.00] 3PH    1951.01    9794.9   -74.68
                            LG     1919.10    9634.7   -82.30
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.769/62.658, 1.93399  Z-:/6.657/65.366, 2.18082  Z0:/7.449/81.648, 6.81155

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
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X---------- BUS ----------X          MVA        AMP      DEG
  6047 [CLA115      115.00] 3PH     851.39    4274.4   -82.54
                            LG       0.00       0.0     0.00
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/15.422/71.131, 2.92590  Z-:/15.319/72.164, 3.10784  Z0:/0.13E+09/90.000, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6055 [MOS115B     115.00] 3PH    1948.86    9784.1   -75.41
                            LG     1704.90    8559.3   -83.01
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.825/64.553, 2.10154  Z-:/6.711/67.297, 2.39024  Z0:/10.062/80.576, 6.02510

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6057 [TOC115      115.00] 3PH    1537.65    7719.7   -79.67
                            LG     1056.39    5303.5   -86.02
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.649/69.556, 2.68260  Z-:/8.545/71.692, 3.02226  Z0:/20.710/80.298, 5.84909

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6059 [LM1115      115.00] 3PH    2277.01   11431.6   -81.59
                            LG     2545.27   12778.3   -85.84
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.855/73.327, 3.33888  Z-:/5.672/75.541, 3.87803  Z0:/4.254/86.191, 15.01989

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6060 [LM2115      115.00] 3PH    2282.53   11459.3   -81.64
                            LG     2570.69   12906.0   -85.92
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.841/73.411, 3.35684  Z-:/5.659/75.622, 3.90089  Z0:/4.130/86.603, 16.84493

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6066 [FFIELD      115.00] 3PH    1689.78    8483.4   -81.94
                            LG     1330.82    6681.3   -84.25
```

```
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.882/73.002, 3.27119  Z-:/7.693/74.685, 3.65173  Z0:/14.460/76.898, 4.29641

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6074 [LMDIST      115.00] 3PH    2277.30   11433.0   -81.68
                            LG     2556.15   12833.0   -85.95
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.854/73.432, 3.36124  Z-:/5.671/75.647, 3.90795  Z0:/4.190/86.473, 16.22601

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6087 [CAL115      115.00] 3PH    1551.97    7791.6   -53.67
                            LG      699.56    3512.1   -45.79
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.722/85.293, 12.14377  Z-:/8.447/86.262, 15.30508  Z0:/41.138/73.929, 3.47106

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6088 [LES115      115.00] 3PH    1296.75    6510.3   -52.49
                            LG      577.45    2899.0   -45.09
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/10.465/84.604, 10.58736  Z-:/10.212/85.281, 12.11454  Z0:/50.090/74.013, 3.49049

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6092 [LVA115      115.00] 3PH    1452.48    7292.1   -53.17
                            LG      651.41    3270.3   -45.48
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.319/84.995, 11.41965  Z-:/9.053/85.844, 13.76184  Z0:/44.228/73.959, 3.47791

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6170 [CPA115      115.00] 3PH    1464.02    7350.0   -82.32
                            LG     1475.61    7408.2   -85.77
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.109/74.365, 3.57323  Z-:/8.980/75.718, 3.92817  Z0:/9.087/83.352, 8.57974

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6173 [STR115      115.00] 3PH    2103.30   10559.5   -81.07
                            LG     1774.17    8907.1   -83.51
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.339/72.414, 3.15515  Z-:/6.179/74.597, 3.62977  Z0:/10.036/76.545, 4.17965

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6174 [PM115-1A    115.00] 3PH    1260.97    6330.6   -83.73
                            LG      971.82    4879.0   -84.23
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/10.579/74.275, 3.55175  Z-:/10.466/75.810, 3.95484  Z0:/20.137/74.506, 3.60743

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6175 [PM115-2A    115.00] 3PH    1260.97    6330.6   -83.73
                            LG      971.82    4879.0   -84.23
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/10.579/74.275, 3.55175  Z-:/10.466/75.810, 3.95484  Z0:/20.137/74.506, 3.60743

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6210 [TIN115      115.00] 3PH    1836.11    9218.1   -76.13
                            LG     1692.17    8495.5   -84.50
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.239/65.284, 2.17257  Z-:/7.129/67.876, 2.45973  Z0:/9.477/84.410, 10.21748

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6211 [PM115-9     115.00] 3PH    1757.41    8823.0   -76.69
                            LG        0.00       0.0     0.00
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.566/65.842, 2.22948  Z-:/7.459/68.330, 2.51672  Z0:/0.13E+09/90.000, 9999.999

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
```

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  6230 [CBA115      115.00] 3PH    2081.19   10448.5   -73.86
                            LG    2157.39   10831.1   -81.02
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.351/62.048, 1.88457  Z-:/6.235/64.932, 2.13788  Z0:/5.995/81.323, 6.55269

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6261 [CHA 115     115.00] 3PH     764.43    3837.8   -58.10
                            LG     890.20    4469.2   -58.10
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/17.628/87.199, 20.43813  Z-:/17.625/87.231, 20.67296  Z0:/10.160/87.106, 19.78032

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6270 [CAT 115     115.00] 3PH    2275.61   11424.6   -81.49
                            LG    2537.00   12736.9   -85.46
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.860/73.261, 3.32490  Z-:/5.677/75.457, 3.85476  Z0:/4.288/85.001, 11.43153

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6280 [GIR 115     115.00] 3PH    1357.96    6817.6   -82.80
                            LG    1433.24    7195.5   -86.36
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.822/75.046, 3.74411  Z-:/9.698/76.266, 4.09171  Z0:/8.485/85.412, 12.46122

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6290 [CATII 11    115.00] 3PH    2189.89   10994.2   -81.70
                            LG    2499.95   12550.8   -86.71
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.088/73.394, 3.35311  Z-:/5.909/75.541, 3.87804  Z0:/4.117/90.000, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6331 [BAI115      115.00] 3PH     678.03    3404.0   -55.90
                            LG       1.09       5.5   122.39
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/19.661/88.295, 33.59576  Z-:/19.617/88.395, 35.69034  Z0:/36727.398/-89.996, 9999.999
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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6332 [BAM115      115.00] 3PH     493.96    2479.9   -50.99
                            LG       1.09       5.5   125.28
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/27.098/86.275, 15.36164  Z-:/27.061/86.328, 15.58070  Z0:/36727.398/-89.996, 9999.999

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6350 [PM115-8     115.00] 3PH    1806.08    9067.3   -76.07
                            LG     1727.29    8671.8   -81.92
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.347/64.873, 2.13212  Z-:/7.238/67.400, 2.40233  Z0:/8.592/78.534, 4.93019

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6550 [CHAZ115     115.00] 3PH    1127.24    5659.2   -59.24
                            LG     1499.29    7527.1   -60.10
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/11.899/86.576, 16.71138  Z-:/11.374/87.518, 23.06930  Z0:/3.571/90.000, 9999.999

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6580 [LBO115      115.00] 3PH    1573.43    7899.3   -78.33
                            LG       0.00       0.0     0.00
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.423/67.160, 2.37429  Z-:/8.321/69.350, 2.65335  Z0:/0.13E+09/90.000, 9999.999

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6123 [MIR115      115.00] 3PH    1511.89    7590.4   -79.08
                            LG     1427.31    7165.7   -83.23
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.917/69.474, 2.67095  Z-:/8.830/71.238, 2.94381  Z0:/10.669/79.070, 5.17832
```

Cortocircuito Año 2014

PSS®E ASCC SHORT CIRCUIT CURRENTS THU, MAY 12 2011 11:25
PLAN DE EXPANSIÓN DEL SISTEMA INTERCONECTADO NACIONAL
BASE DE DATOS REGIONAL - DEMANDA MÁXIMA - ÉPOCA HUMEDA 2014
OUTPUT FOR AREA 6 [PANAMA]

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6000 [FRONTER	230.00] 3PH	2941.08	7382.7	-49.98
	LG	3025.68	7595.1	-49.50

THEVENIN IMPEDANCE, X/R (OHM) Z+:/18.286/82.260, 7.35756 Z-:/18.094/82.637, 7.73836 Z0:/16.951/80.348, 5.88006

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6001 [PAN230	230.00] 3PH	2429.73	6099.2	-70.42
	LG	2733.26	6861.1	-77.34

THEVENIN IMPEDANCE, X/R (OHM) Z+:/21.867/62.553, 1.92534 Z-:/21.078/66.619, 2.31294 Z0:/15.985/82.776, 7.88935

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6003 [PANII230	230.00] 3PH	2420.98	6077.2	-71.20
	LG	2784.87	6990.6	-76.91

THEVENIN IMPEDANCE, X/R (OHM) Z+:/22.159/64.185, 2.06724 Z-:/21.362/67.943, 2.46806 Z0:/14.688/81.420, 6.62768

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6005 [CHO230	230.00] 3PH	2095.40	5259.9	-70.66
	LG	2257.63	5667.2	-77.54

THEVENIN IMPEDANCE, X/R (OHM) Z+:/25.048/65.649, 2.20955 Z-:/24.196/70.708, 2.85690 Z0:/21.033/82.865, 7.98828

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6008 [LSA230	230.00] 3PH	2812.82	7060.8	-63.69
	LG	2516.33	6316.5	-67.48

THEVENIN IMPEDANCE, X/R (OHM) Z+:/18.995/73.817, 3.44574 Z-:/18.674/76.143, 4.05371 Z0:/26.135/81.405, 6.61591

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6011 [MDN230      230.00] 3PH    3992.60   10022.3   -51.13
                            LG     3212.31    8063.6   -48.60
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/13.321/81.964, 7.08303  Z-:/13.085/82.973, 8.11215  Z0:/23.345/76.013, 4.01462

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6014 [PRO230      230.00] 3PH    3161.31    7935.6   -49.69
                            LG     3505.84    8800.4   -49.65
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/16.988/82.958, 8.09530  Z-:/16.745/83.455, 8.71624  Z0:/12.225/82.109, 7.21531

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6096 [FOR230      230.00] 3PH    4121.29   10345.3   -51.34
                            LG     4388.28   11015.5   -50.35
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/12.927/83.258, 8.45872  Z-:/12.788/83.907, 9.36775  Z0:/10.730/79.102, 5.19380

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6100 [BAY230      230.00] 3PH    1731.15    4345.6   -77.52
                            LG     2054.95    5158.4   -81.74
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/31.437/72.753, 3.22117  Z-:/30.081/75.193, 3.78298  Z0:/18.323/87.189, 20.36742

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6103 [COP23O      230.00] 3PH    2080.35    5222.1   -73.65
                            LG     2266.72    5690.0   -78.98
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/25.855/66.988, 2.35443  Z-:/25.031/70.184, 2.77522  Z0:/20.700/81.576, 6.75267

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
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X---------- BUS ----------X          MVA        AMP      DEG
  6105 [PAM230      230.00] 3PH    2079.46    5219.9   -70.80
                            LG     2235.53    5611.7   -77.65
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/25.240/65.794, 2.22445  Z-:/24.393/70.818, 2.87444  Z0:/21.331/82.864, 7.98785

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6171 [PAC230      230.00] 3PH    1977.61    4964.2   -75.13
                            LG     2090.38    5247.3   -80.04
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/27.337/68.928, 2.59534  Z-:/26.502/71.795, 3.04066  Z0:/24.089/81.676, 6.83434

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6178 [EST230      230.00] 3PH    3643.92    9147.0   -52.14
                            LG     3534.72    8872.9   -51.71
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/14.549/83.230, 8.42320  Z-:/14.438/83.788, 9.18714  Z0:/16.016/81.499, 6.69034

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6179 [GUA230      230.00] 3PH    3882.09    9744.9   -52.21
                            LG     3715.26    9326.1   -51.29
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/13.659/83.178, 8.35892  Z-:/13.546/83.777, 9.17134  Z0:/15.628/80.117, 5.73985

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6182 [VEL230      230.00] 3PH    3524.82    8848.1   -56.58
                            LG     1882.71    4726.0   -41.80
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/15.050/79.330, 5.30733  Z-:/14.879/80.542, 6.00295  Z0:/56.239/56.445, 1.50766

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6240 [LGU 230     230.00] 3PH    1579.42    3964.7   -69.35
                            LG     1505.73    3779.7   -73.49
```

THEVENIN IMPEDANCE, X/R (OHM) Z+:/33.317/72.758, 3.22207 Z-:/32.912/74.964, 3.72279 Z0:/38.878/82.067, 7.17642

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6260 [CHA 230	230.00] 3PH	2319.83	5823.3	-48.63
	LG	2025.67	5084.9	-46.19

THEVENIN IMPEDANCE, X/R (OHM) Z+:/23.164/82.441, 7.53545 Z-:/23.073/82.561, 7.65861 Z0:/33.451/76.548, 4.18067

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6263 [ESP230	230.00] 3PH	2345.39	5887.4	-47.55
	LG	2501.47	6279.2	-43.95

THEVENIN IMPEDANCE, X/R (OHM) Z+:/22.928/83.365, 8.59721 Z-:/22.854/83.486, 8.75756 Z0:/19.029/70.951, 2.89614

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6330 [BAI230	230.00] 3PH	2550.78	6403.0	-48.85
	LG	2875.01	7216.9	-49.56

THEVENIN IMPEDANCE, X/R (OHM) Z+:/21.036/83.003, 8.14758 Z-:/20.815/83.353, 8.58096 Z0:/14.148/85.305, 12.17669

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6340 [CAN 230	230.00] 3PH	2037.39	5114.3	-49.96
	LG	1855.02	4656.5	-43.93

THEVENIN IMPEDANCE, X/R (OHM) Z+:/26.173/81.653, 6.81587 Z-:/26.074/81.879, 7.00809 Z0:/34.743/66.365, 2.28507

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6360 [GLA230	230.00] 3PH	3539.83	8885.7	-46.11
	LG	3184.50	7993.8	-46.93

THEVENIN IMPEDANCE, X/R (OHM) Z+:/15.047/77.386, 4.46843 Z-:/14.918/77.823, 4.63409 Z0:/20.218/79.106, 5.19564

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6363 [ZAM230      230.00] 3PH    3066.88    7698.5   -39.20
                            LG     2633.13    6609.7   -42.51
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/17.450/70.806, 2.87256  Z-:/17.308/71.082, 2.91780  Z0:/26.340/78.301, 4.82905

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6366 [EVA230      230.00] 3PH    2656.19    6667.6   -33.12
                            LG     2251.31    5651.3   -38.88
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/20.202/64.892, 2.13400  Z-:/20.052/65.075, 2.15181  Z0:/31.698/77.854, 4.64630

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6380 [BOQIII 230  230.00] 3PH    3177.16    7975.4   -49.63
                            LG     2509.93    6300.5   -47.06
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/16.824/82.398, 7.49256  Z-:/16.628/82.914, 8.04442  Z0:/30.523/76.729, 4.23981

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6400 [FRONTCHA    230.00] 3PH    2062.19    5176.6   -48.92
                            LG     1528.26    3836.3   -45.59
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/26.078/81.956, 7.07604  Z-:/25.968/82.052, 7.16213  Z0:/53.698/75.342, 3.82308

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6430 [ANTON230    230.00] 3PH    1270.76    3189.9   -76.34
                            LG     1638.10    4112.0   -77.22
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/42.301/79.900, 5.61375  Z-:/42.033/81.180, 6.44434  Z0:/14.122/82.218, 7.31725

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
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  6500 [FRONTDOM    230.00] 3PH    2450.46    6151.2   -52.86
                            LG    2699.46    6776.2   -52.10
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/22.118/82.240, 7.33782  Z-:/22.060/82.415, 7.50989  Z0:/16.074/79.146, 5.21546

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6590 [24DIC230    230.00] 3PH    2144.11    5382.2   -73.54
                            LG    2268.38    5694.1   -78.83
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/25.110/66.891, 2.34346  Z-:/24.309/70.114, 2.76454  Z0:/22.138/80.465, 5.95342

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6680 [BFRIO230    230.00] 3PH    2799.90    7028.4   -41.62
                            LG    2899.04    7277.2   -43.33
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/19.232/75.057, 3.74687  Z-:/18.972/75.367, 3.82999  Z0:/17.564/80.144, 5.75606

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6690 [DOM230      230.00] 3PH    2390.67    6001.1   -53.10
                            LG    2977.09    7473.1   -53.14
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/22.686/82.469, 7.56417  Z-:/22.627/82.646, 7.74854  Z0:/9.339/82.246, 7.34379

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6691 [ALTO230     230.00] 3PH    2174.66    5458.9   -46.78
                            LG    2786.97    6995.9   -48.24
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/24.979/76.149, 4.05559  Z-:/24.913/76.291, 4.09925  Z0:/8.682/85.640, 13.11513

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6695 [PANDO230    230.00] 3PH    1799.66    4517.5   -53.07
                            LG    2347.50    5892.7   -53.49
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/30.151/82.726, 7.83454  Z-:/30.094/82.852, 7.97429  Z0:/9.107/85.500, 12.70643
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                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6698 [MLIRIO230   230.00] 3PH    1961.76    4924.5   -53.09
                            LG     2634.01    6611.9   -53.57
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/27.655/82.647, 7.74901  Z-:/27.598/82.787, 7.90118  Z0:/6.551/86.589, 16.77732

                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6760 [SBA230      230.00] 3PH    2123.20    5329.7   -61.50
                            LG     1077.56    2704.9   -54.35
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/25.034/80.268, 5.83046  Z-:/24.858/81.260, 6.50499  Z0:/98.760/69.255, 2.64012

                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6790 [SMA230      230.00] 3PH    2525.60    6339.8   -58.68
                            LG     2217.52    5566.5   -64.16
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/21.174/68.887, 2.58978  Z-:/20.774/70.837, 2.87757  Z0:/30.714/80.548, 6.00682

                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6840 [BUR230      230.00] 3PH    2429.94    6099.7   -49.54
                            LG     3113.74    7816.2   -50.45
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/22.152/82.985, 8.12706  Z-:/21.916/83.349, 8.57642  Z0:/7.817/88.029, 29.05829
```

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X---------- BUS ----------X          MVA        AMP      DEG
  6002 [PAN115      115.00] 3PH    2277.51   11434.1   -71.26
                            LG     2658.87   13348.7   -78.18
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.966/60.871, 1.79449  Z-:/5.778/64.551, 2.10131  Z0:/3.786/83.814, 9.22664

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6004 [PANII115    115.00] 3PH    1884.50    9461.0   -76.25
                            LG     1580.82    7936.4   -84.62
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.201/66.531, 2.30328  Z-:/7.030/69.569, 2.68449  Z0:/11.754/83.233, 8.42808

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6006 [CHO115      115.00] 3PH    1327.21    6663.2   -78.44
                            LG     1082.68    5435.5   -88.88
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.762/70.891, 2.88634  Z-:/9.224/78.501, 4.91554  Z0:/17.229/88.738, 45.40258

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6009 [LSA115      115.00] 3PH    1447.52    7267.2   -70.33
                            LG      978.78    4913.9   -76.53
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.378/77.893, 4.66185  Z-:/9.209/79.505, 5.39793  Z0:/23.171/88.423, 36.32365

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6012 [MDN115      115.00] 3PH    2010.70   10094.6   -51.74
                            LG     1652.96    8298.6   -52.83
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.664/84.948, 11.31232  Z-:/6.280/87.113, 19.82636  Z0:/11.378/86.065, 14.53632

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6015 [PRO115      115.00] 3PH    1153.20    5789.6   -53.85
                            LG     1262.18    6336.7   -54.73
```

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THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/11.587/86.875, 18.31612  Z-:/11.080/87.795, 25.97289  Z0:/9.096/88.820, 48.55304

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                                  <-SCMVA-> <-Sym I''k rms-->
                                               /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6018 [CAC115      115.00] 3PH    2254.81   11320.2   -71.50
                            LG     2626.34   13185.4   -78.10
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.024/61.041, 1.80713  Z-:/5.839/64.666, 2.11225  Z0:/3.833/82.694, 7.79936

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                                  <-SCMVA-> <-Sym I''k rms-->
                                               /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6019 [CVI115A     115.00] 3PH    1668.95    8378.9   -76.13
                            LG     1519.56    7628.9   -83.81
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.103/65.082, 2.15256  Z-:/7.943/67.797, 2.45006  Z0:/10.901/82.115, 7.22032

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                                  <-SCMVA-> <-Sym I''k rms-->
                                               /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6024 [CHI115      115.00] 3PH    1209.72    6073.3   -79.74
                            LG      888.47    4460.5   -84.16
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/11.100/68.077, 2.48468  Z-:/10.921/69.990, 2.74595  Z0:/23.401/75.773, 3.94409

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                                  <-SCMVA-> <-Sym I''k rms-->
                                               /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6027 [LOC115A     115.00] 3PH    2065.49   10369.6   -71.96
                            LG     2337.87   11737.1   -79.11
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.542/60.387, 1.75937  Z-:/6.367/63.727, 2.02577  Z0:/4.663/82.936, 8.07005

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                                  <-SCMVA-> <-Sym I''k rms-->
                                               /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6032 [MAR115A     115.00] 3PH    1720.67    8638.5   -73.99
                            LG     1784.47    8958.8   -80.74
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.838/62.138, 1.89172  Z-:/7.677/64.950, 2.13958  Z0:/7.375/80.238, 5.81242

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6036 [SMA115      115.00] 3PH    2060.60   10345.1   -72.33
                            LG     2230.87   11199.9   -79.16
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.587/61.763, 1.86209  Z-:/6.407/65.112, 2.15550  Z0:/5.445/81.048, 6.34802

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6040 [SFR115      115.00] 3PH    1878.45    9430.6   -73.24
                            LG     1896.43    9520.9   -81.16
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.179/61.261, 1.82357  Z-:/7.014/64.314, 2.07917  Z0:/7.406/81.541, 6.72403

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6047 [CLA115      115.00] 3PH     825.56    4144.7   -82.23
                            LG       0.00       0.0     0.00
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/16.186/70.017, 2.74994  Z-:/16.026/71.340, 2.96120  Z0:/0.13E+09/90.000, 9999.999

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6055 [MOS115B     115.00] 3PH    1876.57    9421.2   -73.96
                            LG     1687.16    8470.3   -82.06
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.226/63.102, 1.97130  Z-:/7.059/66.187, 2.26589  Z0:/10.061/80.565, 6.01759

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6057 [TOC115      115.00] 3PH    1503.44    7547.9   -78.37
                            LG     1179.28    5920.5   -85.70
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.009/68.309, 2.51407  Z-:/8.853/70.760, 2.86517  Z0:/16.808/82.141, 7.24435

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
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  6059 [LM1115      115.00] 3PH    1850.19    9288.7   -80.24
                            LG    2195.54   11022.6   -85.03
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.289/69.795, 2.71724  Z-:/7.002/72.551, 3.18147  Z0:/4.253/86.183, 14.99015

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6060 [LM2115      115.00] 3PH    1853.12    9303.5   -80.29
                            LG    2213.61   11113.3   -85.07
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.278/69.865, 2.72746  Z-:/6.991/72.618, 3.19452  Z0:/4.129/86.595, 16.80829

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6066 [FFIELD      115.00] 3PH    1460.18    7330.8   -81.23
                            LG    1237.53    6212.9   -84.84
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.176/70.140, 2.76851  Z-:/8.889/72.364, 3.14561  Z0:/14.459/76.895, 4.29540

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6074 [LMDIST      115.00] 3PH    1850.12    9288.4   -80.32
                            LG    2203.38   11061.9   -85.11
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.289/69.883, 2.73014  Z-:/7.002/72.640, 3.19892  Z0:/4.189/86.466, 16.19182

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6087 [CAL115      115.00] 3PH    1580.10    7932.8   -48.05
                            LG     697.96    3504.0   -39.82
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.498/85.491, 12.68069  Z-:/8.271/86.282, 15.38886  Z0:/41.211/73.771, 3.43557

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6088 [LES115      115.00] 3PH    1311.52    6584.4   -46.77
                            LG     575.10    2887.2   -39.13
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/10.262/84.716, 10.81153  Z-:/10.054/85.262, 12.06544  Z0:/50.163/73.884, 3.46096
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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6092 [LVA115      115.00] 3PH    1474.91    7404.7   -47.50
                            LG     649.45    3260.5   -39.52
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.103/85.156, 11.79976  Z-:/8.884/85.845, 13.76670  Z0:/44.301/73.812, 3.44474

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6170 [CPA115      115.00] 3PH    1201.58    6032.4   -81.40
                            LG    1298.46    6518.8   -85.67
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/11.241/70.813, 2.87372  Z-:/11.015/72.664, 3.20359  Z0:/9.087/83.350, 8.57753

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6173 [STR115      115.00] 3PH    1795.89    9016.1   -79.87
                            LG    1635.09    8208.9   -83.51
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.523/69.492, 2.67341  Z-:/7.273/72.195, 3.11363  Z0:/10.027/76.533, 4.17590

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6174 [PM115-1A    115.00] 3PH    1191.76    5983.2   -82.83
                            LG     952.21    4780.5   -84.31
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/11.369/72.413, 3.15495  Z-:/11.194/74.339, 3.56693  Z0:/20.131/74.499, 3.60566

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6175 [PM115-2A    115.00] 3PH    1191.76    5983.2   -82.83
                            LG     952.21    4780.5   -84.31
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/11.369/72.413, 3.15495  Z-:/11.194/74.339, 3.56693  Z0:/20.131/74.499, 3.60566

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                                <-SCMVA-> <-Sym I''k rms-->
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                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6210 [TIN115      115.00] 3PH    1775.27    8912.6   -74.68
                            LG     1676.07    8414.6   -83.51
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.629/63.777, 2.03020  Z-:/7.466/66.704, 2.32238  Z0:/9.477/84.406, 10.21012

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6211 [PM115-9     115.00] 3PH    1702.96    8549.6   -75.29
                            LG       0.00       0.0     0.00
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.958/64.405, 2.08761  Z-:/7.799/67.223, 2.38162  Z0:/0.13E+09/90.000, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6230 [CBA115      115.00] 3PH    1994.34   10012.5   -72.39
                            LG     2118.96   10638.1   -79.84
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.769/60.606, 1.77513  Z-:/6.597/63.837, 2.03561  Z0:/5.979/81.255, 6.50107

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6261 [CHA 115     115.00] 3PH     730.43    3667.1   -52.96
                            LG      857.27    4303.9   -52.95
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/18.255/87.178, 20.28485  Z-:/18.239/87.211, 20.52672  Z0:/10.168/87.109, 19.80171

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6270 [CAT 115     115.00] 3PH    1845.46    9265.0   -80.10
                            LG     2185.50   10972.2   -84.65
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.308/69.666, 2.69838  Z-:/7.020/72.404, 3.15314  Z0:/4.287/84.993, 11.41324

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6280 [GIR 115     115.00] 3PH    1104.75    5546.3   -81.96
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                              LG    1245.08    6250.8   -86.22
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/12.227/71.375, 2.96723  Z-:/12.003/73.085, 3.28828  Z0:/8.485/85.411, 12.45769

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6290 [CATII 11    115.00] 3PH    1800.55    9039.5   -80.42
                              LG    2170.49   10896.8   -85.80
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.491/69.984, 2.74515  Z-:/7.210/72.674, 3.20560  Z0:/4.117/90.000, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6331 [BAI115      115.00] 3PH     679.11    3409.4   -50.22
                              LG       1.08       5.4   128.17
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/19.507/88.393, 35.64506  Z-:/19.467/88.476, 37.58407  Z0:/36727.398/-89.996, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6332 [BAM115      115.00] 3PH     492.70    2473.6   -45.20
                              LG       1.09       5.5   131.10
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/26.973/86.312, 15.51484  Z-:/26.939/86.355, 15.69678  Z0:/36727.398/-89.996, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6350 [PM115-8     115.00] 3PH    1745.21    8761.7   -74.69
                              LG    1707.75    8573.7   -80.98
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.758/63.505, 2.00609  Z-:/7.596/66.367, 2.28537  Z0:/8.589/78.514, 4.92111

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6550 [CHAZ115     115.00] 3PH    1143.17    5739.2   -53.76
                              LG    1516.35    7612.7   -54.58
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/11.689/86.789, 17.82227  Z-:/11.182/87.696, 24.85905  Z0:/3.571/90.000, 9999.999
```

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------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6580 [LBO115      115.00] 3PH    1535.66    7709.7   -77.03
                            LG       0.00       0.0     0.00
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.803/65.939, 2.23958  Z-:/8.649/68.448, 2.53193  Z0:/0.13E+09/90.000, 9999.999

------------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6123 [MIR115      115.00] 3PH    1478.88    7424.6   -78.04
                            LG     1419.54    7126.7   -82.60
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.277/68.390, 2.52441  Z-:/9.147/70.437, 2.81406  Z0:/10.669/79.062, 5.17449
```

Cortocircuito Año 2015

PSS®E ASCC SHORT CIRCUIT CURRENTS FRI, MAY 13 2011 11:06

PLAN DE EXPANSIÓN DEL SISTEMA INTERCONECTADO NACIONAL
BASE DE DATOS REGIONAL - DEMANDA MÁXIMA - ÉPOCA HÚMEDA 2015
OUTPUT FOR AREA 6 [PANAMA]

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6000 [FRONTER 230.00]	3PH	3066.59	7697.8	-45.34
	LG	3112.48	7813.0	-44.78

THEVENIN IMPEDANCE, X/R (OHM) Z+:/17.549/82.435, 7.52956 Z-:/17.386/82.785, 7.89899 Z0:/16.944/80.360, 5.88722

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6001 [PAN230 230.00]	3PH	2447.37	6143.4	-69.84
	LG	2748.63	6899.7	-76.96

THEVENIN IMPEDANCE, X/R (OHM) Z+:/21.406/61.188, 1.81810 Z-:/20.768/65.375, 2.18166 Z0:/15.647/82.074, 7.18294

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6003 [PANII230 230.00]	3PH	2426.99	6092.3	-70.75
	LG	2798.37	7024.5	-76.23

THEVENIN IMPEDANCE, X/R (OHM) Z+:/21.826/62.952, 1.95852 Z-:/21.171/66.803, 2.33355 Z0:/14.157/79.368, 5.32674

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6005 [CHO230 230.00]	3PH	2119.60	5320.7	-69.84
	LG	2252.92	5655.3	-77.19

THEVENIN IMPEDANCE, X/R (OHM) Z+:/24.384/64.662, 2.11188 Z-:/23.741/69.925, 2.73636 Z0:/21.289/82.796, 7.91114

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6008 [LSA230 230.00]	3PH	2881.60	7233.4	-61.50
	LG	2358.29	5919.8	-63.76

THEVENIN IMPEDANCE, X/R (OHM) Z+:/18.541/73.897, 3.46391 Z-:/18.320/76.149, 4.05580 Z0:/31.130/77.520, 4.51802

X---------- BUS ----------X			<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6011 [MDN230	230.00]	3PH	4101.41	10295.4	-47.19
		LG	3272.24	8214.0	-44.80

THEVENIN IMPEDANCE, X/R (OHM) Z+:/12.951/82.087, 7.19461 Z-:/12.771/83.042, 8.19415 Z0:/23.044/76.513, 4.16961

X---------- BUS ----------X			<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6014 [PRO230	230.00]	3PH	3310.06	8309.0	-45.15
		LG	3626.47	9103.2	-45.03

THEVENIN IMPEDANCE, X/R (OHM) Z+:/16.262/83.163, 8.34092 Z-:/16.052/83.634, 8.96350 Z0:/12.218/82.126, 7.23109

X---------- BUS ----------X			<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6096 [FOR230	230.00]	3PH	4215.87	10582.8	-47.37
		LG	4464.00	11205.6	-46.37

THEVENIN IMPEDANCE, X/R (OHM) Z+:/12.646/83.363, 8.59405 Z-:/12.542/83.968, 9.46396 Z0:/10.664/79.301, 5.29278

X---------- BUS ----------X			<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6100 [BAY230	230.00]	3PH	1733.05	4350.3	-77.44
		LG	2050.92	5148.2	-81.82

THEVENIN IMPEDANCE, X/R (OHM) Z+:/31.142/72.132, 3.10202 Z-:/29.914/74.608, 3.63257 Z0:/18.309/87.101, 19.74954

X---------- BUS ----------X			<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6103 [COP23O	230.00]	3PH	2083.00	5228.8	-73.42
		LG	2266.67	5689.8	-78.77

THEVENIN IMPEDANCE, X/R (OHM) Z+:/25.514/66.001, 2.24617 Z-:/24.834/69.266, 2.64161 Z0:/20.385/80.611, 6.04746

```
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6105 [PAM230      230.00] 3PH    2103.14    5279.3   -69.99
                            LG     2230.77    5599.7   -77.30
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/24.574/64.818, 2.12683  Z-:/23.937/70.043, 2.75388  Z0:/21.582/82.802, 7.91757

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6171 [PAC230      230.00] 3PH    1978.95    4967.6   -74.99
                            LG     2087.07    5239.0   -79.99
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/27.007/68.065, 2.48319  Z-:/26.311/70.986, 2.90198  Z0:/23.857/81.036, 6.33966

-------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6178 [EST230      230.00] 3PH    3728.64    9359.7   -48.42
                            LG     3600.07    9037.0   -48.06
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/14.251/83.365, 8.59662  Z-:/14.170/83.878, 9.32363  Z0:/15.864/81.911, 7.03592

-------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6179 [GUA230      230.00] 3PH    3977.99    9985.6   -48.48
                            LG     3789.16    9511.6   -47.67
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/13.359/83.323, 8.54260  Z-:/13.277/83.875, 9.31887  Z0:/15.451/80.632, 6.06126

-------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6182 [VEL230      230.00] 3PH    3682.74    9244.5   -53.40
                            LG     2044.52    5132.2   -41.27
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/14.344/79.678, 5.49066  Z-:/14.227/80.815, 6.18430  Z0:/50.036/60.330, 1.75534

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
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  6240 [LGU 230     230.00] 3PH    2122.37    5327.6   -65.97
                            LG     1772.26    4448.8   -70.16
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/24.600/70.886, 2.88555  Z-:/24.304/73.800, 3.44198  Z0:/39.615/78.454, 4.89518

-------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6260 [CHA 230     230.00] 3PH    2363.77    5933.6   -44.41
                            LG     2051.12    5148.8   -41.91
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/22.808/82.534, 7.63066  Z-:/22.732/82.643, 7.74517  Z0:/33.421/76.537, 4.17724

-------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6263 [ESP230      230.00] 3PH    2381.00    5976.8   -43.36
                            LG     2531.80    6355.4   -39.72
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/22.685/83.408, 8.65284  Z-:/22.625/83.518, 8.80108  Z0:/19.013/70.907, 2.88895

-------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6330 [BAI230      230.00] 3PH    2642.01    6632.0   -44.23
                            LG     2952.72    7412.0   -44.92
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/20.381/83.119, 8.28700  Z-:/20.189/83.447, 8.70485  Z0:/14.145/85.309, 12.18592

-------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6340 [CAN 230     230.00] 3PH    2064.80    5183.1   -45.99
                            LG     1874.78    4706.1   -39.94
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/25.887/81.696, 6.85139  Z-:/25.812/81.902, 7.02773  Z0:/34.576/66.438, 2.29301

-------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6360 [GLA230      230.00] 3PH    3619.05    9084.6   -42.23
                            LG     3240.56    8134.5   -43.23
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/14.760/77.312, 4.44186  Z-:/14.661/77.725, 4.59612  Z0:/20.038/79.493, 5.39204
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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6363 [ZAM230      230.00] 3PH    3124.82    7844.0   -35.22
                            LG     2672.68    6709.0   -38.77
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/17.184/70.574, 2.83554  Z-:/17.072/70.846, 2.87898  Z0:/26.158/78.592, 4.95592

                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6366 [EVA230      230.00] 3PH    2699.18    6775.5   -29.10
                            LG     2281.27    5726.5   -35.11
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/19.950/64.601, 2.10609  Z-:/19.830/64.789, 2.12402  Z0:/31.515/78.093, 4.74256

                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6380 [BOQIII 230  230.00] 3PH    3265.52    8197.2   -45.31
                            LG     2548.99    6398.5   -42.71
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/16.374/82.486, 7.58160  Z-:/16.216/82.967, 8.10599  Z0:/30.423/76.851, 4.28056

                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6400 [FRONTCHA    230.00] 3PH    2093.44    5255.0   -44.66
                            LG     1542.05    3870.9   -41.27
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/25.759/82.022, 7.13515  Z-:/25.664/82.108, 7.21432  Z0:/53.668/75.334, 3.82109

                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6430 [ANTON230    230.00] 3PH    1822.25    4574.3   -72.67
                            LG     2240.36    5623.8   -73.88
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/29.282/76.011, 4.01418  Z-:/29.052/77.974, 4.69423  Z0:/13.129/78.236, 4.80167

                                <-SCMVA-> <-Sym I''k rms-->
```

```
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6500 [FRONTDOM    230.00] 3PH    2622.68    6583.5   -48.09
                            LG     2829.60    7102.9   -47.15
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/20.496/82.692, 7.79707  Z-:/20.458/82.840, 7.96084  Z0:/16.062/79.179, 5.23179

-------------------------------------------------------------------------------------------------------------------

                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6590 [24DIC230    230.00] 3PH    2147.16    5389.8   -73.29
                            LG     2269.41    5696.7   -78.59
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/24.773/65.877, 2.23315  Z-:/24.113/69.169, 2.62818  Z0:/21.778/79.454, 5.37152

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6680 [BFRIO230    230.00] 3PH    2915.06    7317.4   -36.70
                            LG     2981.24    7483.6   -38.50
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/18.516/74.875, 3.69973  Z-:/18.289/75.168, 3.77620  Z0:/17.557/80.155, 5.76265

-------------------------------------------------------------------------------------------------------------------

                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6690 [DOM230      230.00] 3PH    2576.01    6466.4   -48.34
                            LG     3160.51    7933.6   -48.28
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/20.862/82.979, 8.12012  Z-:/20.823/83.129, 8.29903  Z0:/9.327/82.307, 7.40287

-------------------------------------------------------------------------------------------------------------------

                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6691 [ALTO230     230.00] 3PH    2344.22    5884.5   -41.98
                            LG     2965.15    7443.2   -43.45
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/22.977/76.733, 4.24126  Z-:/22.932/76.853, 4.28139  Z0:/8.675/85.670, 13.20812

-------------------------------------------------------------------------------------------------------------------

                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6695 [PANDO230    230.00] 3PH    1891.30    4747.6   -48.14
```

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                              LG    2446.83    6142.1   -48.52
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/28.419/83.072, 8.23018  Z-:/28.382/83.176, 8.35677  Z0:/9.106/85.502, 12.71262

-------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6698 [MLIRIO230   230.00] 3PH    2107.86    5291.2   -48.23
                              LG    2804.20    7039.2   -48.67
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/25.497/83.155, 8.33039  Z-:/25.460/83.271, 8.47538  Z0:/6.550/86.594, 16.80437

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6760 [SBA230      230.00] 3PH    2164.28    5432.8   -58.66
                              LG    1061.53    2664.7   -51.60
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/24.470/80.474, 5.95899  Z-:/24.355/81.400, 6.61231  Z0:/101.468/69.815, 2.72007

-------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6790 [SMA230      230.00] 3PH    2580.12    6476.7   -56.34
                              LG    2091.43    5249.9   -60.78
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/20.727/68.822, 2.58111  Z-:/20.427/70.729, 2.86025  Z0:/35.726/77.282, 4.43084

-------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6840 [BUR230      230.00] 3PH    2555.68    6415.3   -44.96
                              LG    3249.56    8157.1   -45.85
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/21.130/83.242, 8.43847  Z-:/20.930/83.581, 8.88890  Z0:/7.816/88.031, 29.08999

-------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6860 [BBL230      230.00] 3PH    2934.85    7367.1   -53.99
                              LG    1729.71    4342.0   -44.64
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/18.013/79.240, 5.26218  Z-:/17.893/80.208, 5.79407  Z0:/56.643/63.677, 2.02127
```

PSS®E ASCC SHORT CIRCUIT CURRENTS FRI, MAY 13 2011 11:07
PLAN DE EXPANSIÓN DEL SISTEMA INTERCONECTADO NACIONAL
BASE DE DATOS REGIONAL - DEMANDA MÁXIMA - ÉPOCA HÚMEDA 2015
OUTPUT FOR AREA 7 [ACANAL]

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6002 [PAN115	115.00] 3PH	2271.09	11401.8	-70.72
	LG	2651.17	13310.0	-78.02

THEVENIN IMPEDANCE, X/R (OHM) Z+:/5.974/59.344, 1.68714 Z-:/5.820/63.125, 1.97328 Z0:/3.786/83.769, 9.15958

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6004 [PANII115	115.00] 3PH	1879.59	9436.4	-76.01
	LG	1578.33	7923.9	-84.90

THEVENIN IMPEDANCE, X/R (OHM) Z+:/7.213/65.325, 2.17669 Z-:/7.076/68.433, 2.52999 Z0:/11.745/83.171, 8.34991

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6006 [CHO115	115.00] 3PH	1333.55	6695.0	-78.02
	LG	1073.54	5389.6	-89.05

THEVENIN IMPEDANCE, X/R (OHM) Z+:/9.548/70.035, 2.75269 Z-:/9.110/78.125, 4.75576 Z0:/17.266/88.713, 44.52408

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6009 [LSA115	115.00] 3PH	1465.63	7358.1	-68.13
	LG	965.01	4844.8	-73.91

THEVENIN IMPEDANCE, X/R (OHM) Z+:/9.256/77.757, 4.60858 Z-:/9.113/79.323, 5.30378 Z0:/23.931/87.370, 21.76702

X---------- BUS ----------X		<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6012 [MDN115	115.00] 3PH	2037.84	10230.9	-47.80
	LG	1658.42	8326.0	-48.97

THEVENIN IMPEDANCE, X/R (OHM) Z+:/6.541/84.961, 11.34152 Z-:/6.234/87.173, 20.25024 Z0:/11.342/86.240, 15.21673

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------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6015 [PRO115      115.00] 3PH    1174.84    5898.2   -49.24
                            LG     1280.09    6426.6   -50.10
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/11.420/86.984, 18.97908  Z-:/10.930/87.914, 27.44821  Z0:/9.095/88.823, 48.68116

------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6018 [CAC115      115.00] 3PH    2248.95   11290.7   -70.98
                            LG     2618.94   13148.2   -77.96
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.032/59.528, 1.69955  Z-:/5.879/63.252, 1.98415  Z0:/3.833/82.650, 7.75261

------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6019 [CVI115A     115.00] 3PH    1667.28    8370.5   -75.99
                            LG     1517.76    7619.8   -84.15
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.098/63.910, 2.04215  Z-:/7.973/66.688, 2.32064  Z0:/10.898/82.087, 7.19416

------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6024 [CHI115      115.00] 3PH    1209.35    6071.5   -80.04
                            LG      888.16    4458.9   -84.89
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/11.106/67.275, 2.38769  Z-:/10.962/69.240, 2.63802  Z0:/23.402/75.770, 3.94319

------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6027 [LOC115A     115.00] 3PH    2062.78   10356.0   -71.51
                            LG     2334.19   11718.7   -79.07
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.538/58.859, 1.65502  Z-:/6.397/62.289, 1.90379  Z0:/4.663/82.909, 8.03870

------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
```

```
X---------- BUS ----------X          MVA        AMP      DEG
  6032 [MAR115A     115.00] 3PH    1719.23    8631.3   -73.76
                            LG     1782.44    8948.6   -80.96
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.833/60.808, 1.78987  Z-:/7.709/63.692, 2.02264  Z0:/7.375/80.224, 5.80406

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6036 [SMA115      115.00] 3PH    2056.02   10322.1   -71.92
                            LG     2225.75   11174.3   -79.18
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.593/60.362, 1.75763  Z-:/6.448/63.804, 2.03261  Z0:/5.446/81.020, 6.32805

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6040 [SFR115      115.00] 3PH    1877.69    9426.8   -72.90
                            LG     1894.87    9513.1   -81.33
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.166/59.829, 1.72016  Z-:/7.036/62.960, 1.95926  Z0:/7.406/81.524, 6.71015

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6047 [CLA115      115.00] 3PH     825.92    4146.5   -82.78
                            LG       0.00       0.0     0.00
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/16.182/69.462, 2.66924  Z-:/16.059/70.818, 2.87453  Z0:/0.13E+09/90.000, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6055 [MOS115B     115.00] 3PH    1874.70    9411.8   -73.66
                            LG     1685.11    8460.0   -82.32
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.221/61.793, 1.86443  Z-:/7.090/64.958, 2.14037  Z0:/10.062/80.553, 6.01001

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6057 [TOC115      115.00] 3PH    1501.40    7537.7   -78.36
                            LG     1177.77    5912.9   -86.17
```

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THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.010/67.311, 2.39191  Z-:/8.890/69.816, 2.72027  Z0:/16.805/82.111, 7.21653

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6059 [LM1115      115.00] 3PH    1849.66    9286.1   -80.41
                            LG    2193.37   11011.7   -85.44
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.288/68.800, 2.57818  Z-:/7.028/71.643, 3.01366  Z0:/4.253/86.182, 14.98487

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6060 [LM2115      115.00] 3PH    1852.65    9301.1   -80.46
                            LG    2211.47   11102.5   -85.49
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.277/68.873, 2.58799  Z-:/7.017/71.714, 3.02612  Z0:/4.129/86.594, 16.80178

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6066 [FFIELD      115.00] 3PH    1457.44    7317.0   -81.57
                            LG    1236.20    6206.3   -85.59
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.204/69.267, 2.64176  Z-:/8.945/71.564, 2.99974  Z0:/14.459/76.894, 4.29527

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6074 [LMDIST      115.00] 3PH    1849.69    9286.2   -80.49
                            LG    2201.28   11051.4   -85.53
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.288/68.890, 2.59021  Z-:/7.028/71.734, 3.02982  Z0:/4.189/86.465, 16.18573

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6087 [CAL115      115.00] 3PH    1593.11    7998.1   -44.09
                            LG     699.66    3512.6   -35.91
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.429/85.458, 12.58864  Z-:/8.245/86.288, 15.41465  Z0:/41.168/73.808, 3.44376

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6088 [LES115      115.00] 3PH    1320.99    6632.0   -42.82
                            LG     576.80    2895.8   -35.23
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/10.200/84.679, 10.73730  Z-:/10.030/85.262, 12.06391  Z0:/50.120/73.914, 3.46779

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6092 [LVA115      115.00] 3PH    1486.42    7462.5   -43.55
                            LG     651.16    3269.1   -35.61
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.038/85.121, 11.71404  Z-:/8.858/85.848, 13.77670  Z0:/44.258/73.846, 3.45240

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6170 [CPA115      115.00] 3PH    1201.81    6033.6   -81.83
                            LG     1297.68    6514.9   -86.32
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/11.231/70.133, 2.76748  Z-:/11.037/72.040, 3.08501  Z0:/9.087/83.350, 8.57671

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6173 [STR115      115.00] 3PH    1795.62    9014.8   -79.99
                            LG     1633.40    8200.4   -84.05
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.521/68.492, 2.53757  Z-:/7.300/71.275, 2.95012  Z0:/10.027/76.530, 4.17507

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6174 [PM115-1A    115.00] 3PH    1192.39    5986.3   -83.18
                            LG     951.34    4776.1   -85.01
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/11.353/71.699, 3.02362  Z-:/11.212/73.671, 3.41324  Z0:/20.131/74.496, 3.60479

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
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  6175 [PM115-2A    115.00] 3PH    1192.39    5986.3   -83.18
                            LG     951.34    4776.1   -85.01
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/11.353/71.699, 3.02362  Z-:/11.212/73.671, 3.41324  Z0:/20.131/74.496, 3.60479

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6210 [TIN115      115.00] 3PH    1773.97    8906.1   -74.46
                            LG     1674.62    8407.3   -83.78
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.622/62.541, 1.92434  Z-:/7.495/65.542, 2.19861  Z0:/9.477/84.402, 10.20302

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6211 [PM115-9     115.00] 3PH    1702.01    8544.9   -75.12
                            LG        0.00       0.0     0.00
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.949/63.220, 1.98136  Z-:/7.827/66.109, 2.25757  Z0:/0.13E+09/90.000, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6230 [CBA115      115.00] 3PH    1992.51   10003.3   -71.97
                            LG     2116.37   10625.1   -79.91
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.761/59.106, 1.67130  Z-:/6.624/62.423, 1.91470  Z0:/5.979/81.234, 6.48508

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6261 [CHA 115     115.00] 3PH     765.26    3841.9   -48.09
                            LG     889.19    4464.1   -48.06
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/17.450/87.284, 21.07616  Z-:/17.438/87.312, 21.30153  Z0:/10.166/87.109, 19.80034

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6270 [CAT 115     115.00] 3PH    1844.87    9262.1   -80.27
                            LG     2183.18   10960.5   -85.08
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.307/68.676, 2.56165  Z-:/7.046/71.501, 2.98892  Z0:/4.287/84.991, 11.41042
```

	<-SCMVA->	<-Sym I''k rms-->	
		/I/	AN(I)
X---------- BUS ----------X	MVA	AMP	DEG
6280 [GIR 115 115.00] 3PH	1105.01	5547.6	-82.44
LG	1244.42	6247.5	-86.88

THEVENIN IMPEDANCE, X/R (OHM) Z+:/12.215/70.751, 2.86369 Z-:/12.025/72.511, 3.17375 Z0:/8.485/85.410, 12.45642

	<-SCMVA->	<-Sym I''k rms-->	
		/I/	AN(I)
X---------- BUS ----------X	MVA	AMP	DEG
6290 [CATII 11 115.00] 3PH	1800.19	9037.7	-80.61
LG	2168.78	10888.2	-86.22

THEVENIN IMPEDANCE, X/R (OHM) Z+:/7.490/69.012, 2.60678 Z-:/7.236/71.787, 3.03920 Z0:/4.117/90.000, 9999.999

	<-SCMVA->	<-Sym I''k rms-->	
		/I/	AN(I)
X---------- BUS ----------X	MVA	AMP	DEG
6331 [BAI115 115.00] 3PH	687.06	3449.4	-45.58
LG	1.09	5.5	132.86

THEVENIN IMPEDANCE, X/R (OHM) Z+:/19.384/88.453, 37.01682 Z-:/19.350/88.528, 38.90276 Z0:/36727.398/-89.996, 9999.999

	<-SCMVA->	<-Sym I''k rms-->	
		/I/	AN(I)
X---------- BUS ----------X	MVA	AMP	DEG
6332 [BAM115 115.00] 3PH	497.72	2498.8	-40.56
LG	1.09	5.5	135.76

THEVENIN IMPEDANCE, X/R (OHM) Z+:/26.873/86.330, 15.59207 Z-:/26.845/86.369, 15.75836 Z0:/36727.398/-89.996, 9999.999

	<-SCMVA->	<-Sym I''k rms-->	
		/I/	AN(I)
X---------- BUS ----------X	MVA	AMP	DEG
6350 [PM115-8 115.00] 3PH	1743.78	8754.6	-74.48
LG	1705.47	8562.2	-81.23

THEVENIN IMPEDANCE, X/R (OHM) Z+:/7.753/62.243, 1.90016 Z-:/7.628/65.180, 2.16219 Z0:/8.590/78.499, 4.91453

<-SCMVA-> <-Sym I''k rms-->

```
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6550 [CHAZ115     115.00] 3PH    1164.48    5846.2   -49.15
                            LG     1540.97    7736.3   -49.96
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/11.521/86.895, 18.43623  Z-:/11.031/87.812, 26.17827  Z0:/3.571/90.000, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6580 [LBO115      115.00] 3PH    1534.60    7704.3   -76.99
                            LG       0.00       0.0     0.00
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.794/64.853, 2.13027  Z-:/8.676/67.420, 2.40469  Z0:/0.13E+09/90.000, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6123 [MIR115      115.00] 3PH    1478.86    7424.5   -78.21
                            LG     1417.87    7118.3   -83.09
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.262/67.551, 2.42033  Z-:/9.165/69.649, 2.69599  Z0:/10.669/79.054, 5.17063
```

Cortocircuito Año 2017

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                            PSS®E ASCC SHORT CIRCUIT CURRENTS          SAT, MAY 14 2011  13:36
PLAN DE EXPANSIÓN DEL SISTEMA INTERCONECTADO NACIONAL
BASE DE DATOS REGIONAL - DEMANDA MÁXIMA - ÉPOCA HÚMEDA 2017
                         OUTPUT FOR AREA 6 [PANAMA      ]
                                    <-SCMVA-> <-Sym I''k rms-->
                                                 /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6000 [FRONTER     230.00] 3PH    3030.01    7606.0   -45.51
                            LG     3087.41    7750.1   -45.00
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/17.743/82.351, 7.44636  Z-:/17.575/82.743, 7.85267  Z0:/16.929/80.366, 5.89126

------------------------------------------------------------------------------------------------------------------
                                    <-SCMVA-> <-Sym I''k rms-->
                                                 /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6001 [PAN230      230.00] 3PH    2924.62    7341.4   -72.26
                            LG     3130.84    7859.1   -79.00
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/17.995/63.894, 2.04073  Z-:/17.630/67.528, 2.41755  Z0:/15.266/82.236, 7.33443

------------------------------------------------------------------------------------------------------------------
                                    <-SCMVA-> <-Sym I''k rms-->
                                                 /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6003 [PANII230    230.00] 3PH    2943.34    7388.4   -72.88
                            LG     3294.36    8269.6   -77.95
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/18.153/65.640, 2.20858  Z-:/17.765/68.937, 2.59652  Z0:/12.997/80.248, 5.81856

------------------------------------------------------------------------------------------------------------------
                                    <-SCMVA-> <-Sym I''k rms-->
                                                 /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6005 [CHO230      230.00] 3PH    2352.97    5906.5   -72.59
                            LG     2412.91    6056.9   -79.47
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/22.083/66.692, 2.32113  Z-:/21.714/71.590, 3.00427  Z0:/21.252/82.768, 7.88041

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                                    <-SCMVA-> <-Sym I''k rms-->
                                                 /I/    AN(I)
```

```
X---------- BUS ----------X          MVA        AMP      DEG
  6008 [LSA230      230.00] 3PH    3123.63    7841.0   -64.83
                            LG     2563.72    6435.5   -67.70
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/17.091/73.586, 3.39454  Z-:/16.922/75.813, 3.95583  Z0:/28.500/78.568, 4.94517

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6011 [MDN230      230.00] 3PH    3980.34    9991.5   -48.23
                            LG     3255.73    8172.6   -46.31
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/13.260/81.792, 6.93234  Z-:/13.056/82.846, 7.96702  Z0:/22.371/77.000, 4.33152

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6014 [PRO230      230.00] 3PH    3268.24    8204.0   -45.47
                            LG     3591.74    9016.0   -45.40
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/16.423/83.074, 8.23235  Z-:/16.207/83.599, 8.91328  Z0:/12.203/82.138, 7.24149

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6096 [FOR230      230.00] 3PH    3933.66    9874.4   -48.02
                            LG     4273.99   10728.7   -47.03
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/13.441/82.755, 7.86596  Z-:/13.319/83.417, 8.66513  Z0:/10.378/78.349, 4.84952

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6100 [BAY230      230.00] 3PH    1917.06    4812.2   -79.02
                            LG     2213.90    5557.4   -82.95
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/28.400/74.076, 3.50491  Z-:/27.428/76.050, 4.02572  Z0:/18.260/87.078, 19.58847

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6103 [COP23O      230.00] 3PH    2434.56    6111.3   -75.45
                            LG     2552.76    6408.0   -80.19
```

THEVENIN IMPEDANCE, X/R (OHM) Z+:/22.019/68.565, 2.54705 Z-:/21.593/71.255, 2.94675 Z0:/19.646/80.869, 6.22143

X---------- BUS ----------X			<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6105 [PAM230	230.00]	3PH	2332.58	5855.3	-72.75
		LG	2387.50	5993.1	-79.58

THEVENIN IMPEDANCE, X/R (OHM) Z+:/22.276/66.847, 2.33848 Z-:/21.912/71.703, 3.02425 Z0:/21.546/82.774, 7.88717

X---------- BUS ----------X			<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6171 [PAC230	230.00]	3PH	2266.10	5688.4	-76.89
		LG	2304.00	5783.5	-81.22

THEVENIN IMPEDANCE, X/R (OHM) Z+:/23.785/70.437, 2.81413 Z-:/23.327/72.798, 3.23008 Z0:/23.297/81.170, 6.43744

X---------- BUS ----------X			<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6178 [EST230	230.00]	3PH	3648.69	9159.0	-49.14
		LG	3603.28	9045.0	-48.79

THEVENIN IMPEDANCE, X/R (OHM) Z+:/14.428/83.117, 8.28391 Z-:/14.340/83.658, 8.99738 Z0:/15.066/81.592, 6.76563

X---------- BUS ----------X			<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6179 [GUA230	230.00]	3PH	3889.40	9763.2	-49.20
		LG	3808.41	9559.9	-48.43

THEVENIN IMPEDANCE, X/R (OHM) Z+:/13.536/83.057, 8.21176 Z-:/13.448/83.638, 8.96893 Z0:/14.502/80.317, 5.86042

X---------- BUS ----------X			<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6182 [VEL230	230.00]	3PH	3800.30	9539.6	-55.47
		LG	2435.93	6114.7	-48.59

THEVENIN IMPEDANCE, X/R (OHM) Z+:/13.827/79.733, 5.52058 Z-:/13.721/80.852, 6.20965 Z0:/37.571/67.397, 2.40199

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6240 [LGU 230     230.00] 3PH    2245.12    5635.7   -69.20
                            LG     1840.71    4620.6   -73.06
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/23.370/71.615, 3.00869  Z-:/23.184/74.280, 3.55285  Z0:/39.072/78.495, 4.91273

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6260 [CHA 230     230.00] 3PH    2572.83    6458.4   -42.87
                            LG     2483.14    6233.2   -41.27
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/20.862/83.139, 8.31109  Z-:/20.795/83.245, 8.44275  Z0:/23.238/78.583, 4.95186

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6263 [ESP230      230.00] 3PH    2468.15    6195.6   -42.15
                            LG     2660.12    6677.5   -38.51
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/21.738/83.635, 8.96508  Z-:/21.681/83.747, 9.12705  Z0:/17.405/70.748, 2.86331

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6330 [BAI230      230.00] 3PH    2612.86    6558.8   -44.56
                            LG     2925.97    7344.8   -45.28
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/20.526/83.062, 8.21835  Z-:/20.329/83.429, 8.68174  Z0:/14.140/85.309, 12.18620

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6340 [CAN 230     230.00] 3PH    2121.76    5326.1   -45.68
                            LG     1987.17    4988.2   -40.16
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/24.976/81.842, 6.97552  Z-:/24.903/82.054, 7.16402  Z0:/30.757/67.165, 2.37481

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
```

```
  6360 [GLA230      230.00] 3PH    3543.02    8893.8   -43.09
                            LG    3249.94    8158.1   -44.00
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/14.938/77.204, 4.40281  Z-:/14.832/77.639, 4.56318  Z0:/19.091/79.198, 5.24097

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6363 [ZAM230      230.00] 3PH    3065.40    7694.8   -36.20
                            LG    2674.61    6713.9   -39.54
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/17.356/70.593, 2.83862  Z-:/17.236/70.881, 2.88477  Z0:/25.212/78.334, 4.84343

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6366 [EVA230      230.00] 3PH    2652.14    6657.5   -30.13
                            LG    2279.31    5721.6   -35.89
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/20.118/64.679, 2.11352  Z-:/19.989/64.879, 2.13270  Z0:/30.571/77.865, 4.65080

-------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6380 [BOQIII 230  230.00] 3PH    3213.91    8067.6   -46.06
                            LG    2531.80    6355.4   -43.61
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/16.564/82.369, 7.46343  Z-:/16.393/82.907, 8.03646  Z0:/30.200/76.960, 4.31781

-------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6400 [FRONTCHA    230.00] 3PH    2222.68    5579.4   -42.83
                            LG    1760.10    4418.2   -39.88
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/24.171/82.412, 7.50690  Z-:/24.085/82.494, 7.58971  Z0:/43.453/76.149, 4.05555

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6430 [ANTON230    230.00] 3PH    1920.60    4821.1   -75.53
                            LG    2339.84    5873.5   -76.35
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/28.023/77.269, 4.42602  Z-:/27.885/78.884, 5.08972  Z0:/13.103/78.153, 4.76700
```

```
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6500 [FRONTDOM    230.00] 3PH    2550.67    6402.7   -48.19
                            LG     2779.97    6978.3   -47.36
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/21.225/82.465, 7.56017  Z-:/21.183/82.628, 7.72887  Z0:/16.034/79.222, 5.25319

                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6590 [24DIC230    230.00] 3PH    2514.21    6311.2   -75.32
                            LG     2555.26    6414.2   -79.97
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/21.336/68.424, 2.52881  Z-:/20.926/71.141, 2.92767  Z0:/20.943/79.753, 5.53154

                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6680 [BFRIO230    230.00] 3PH    2881.52    7233.3   -37.10
                            LG     2956.25    7420.8   -38.91
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/18.676/74.880, 3.70107  Z-:/18.442/75.219, 3.78981  Z0:/17.542/80.162, 5.76628

                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6690 [DOM230      230.00] 3PH    2496.20    6266.0   -48.54
                            LG     3085.94    7746.4   -48.55
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/21.698/82.724, 7.83215  Z-:/21.656/82.886, 8.01299  Z0:/9.300/82.390, 7.48489

                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6691 [ALTO230     230.00] 3PH    2260.95    5675.5   -41.89
                            LG     2880.62    7231.0   -43.42
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/23.994/76.087, 4.03695  Z-:/23.945/76.219, 4.07714  Z0:/8.660/85.709, 13.32781

                                <-SCMVA-> <-Sym I''k rms-->
```

```
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6695 [PANDO230    230.00] 3PH    1855.90    4658.7   -48.43
                            LG     2410.25    6050.2   -48.83
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/29.213/82.901, 8.02946  Z-:/29.173/83.015, 8.16203  Z0:/9.104/85.504, 12.71688
-------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6698 [MLIRIO230   230.00] 3PH    2061.98    5176.0   -48.49
                            LG     2752.88    6910.3   -48.95
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/26.291/82.962, 8.09966  Z-:/26.251/83.089, 8.24998  Z0:/6.547/86.600, 16.82935

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                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6760 [SBA230      230.00] 3PH    2221.30    5576.0   -61.34
                            LG     1085.03    2723.7   -56.00
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/23.723/80.544, 6.00386  Z-:/23.630/81.428, 6.63406  Z0:/98.705/72.422, 3.15669
-------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6790 [SMA230      230.00] 3PH    2766.30    6944.0   -59.24
                            LG     2249.94    5647.8   -64.41
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/19.316/68.077, 2.48468  Z-:/19.071/69.949, 2.73984  Z0:/33.093/78.166, 4.77255
-------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6840 [BUR230      230.00] 3PH    2530.35    6351.7   -45.30
                            LG     3221.37    8086.4   -46.22
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/21.283/83.179, 8.35977  Z-:/21.077/83.559, 8.85727  Z0:/7.814/88.030, 29.07381

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                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6860 [BBL230      230.00] 3PH    3012.87    7563.0   -56.16
                            LG     1972.84    4952.3   -50.96
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/17.451/79.268, 5.27639  Z-:/17.344/80.210, 5.79520  Z0:/45.460/69.721, 2.70638
```

```
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6870 [TABII230    230.00] 3PH    2678.27    6723.0   -55.24
                            LG     1869.05    4691.7   -52.64
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/19.636/79.611, 5.45420  Z-:/19.529/80.370, 5.89388  Z0:/45.346/74.428, 3.58825

                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6880 [CHAII230    230.00] 3PH    2292.47    5754.6   -43.02
                            LG     2459.69    6174.4   -43.18
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/23.390/83.123, 8.29130  Z-:/23.330/83.231, 8.42557  Z0:/18.680/83.562, 8.86231
```

```
                          PSS®E ASCC SHORT CIRCUIT CURRENTS          SAT, MAY 14 2011  13:36
PLAN DE EXPANSIÓN DEL SISTEMA INTERCONECTADO NACIONAL
BASE DE DATOS REGIONAL - DEMANDA MÁXIMA - ÉPOCA HÚMEDA 2017
                       OUTPUT FOR AREA 7 [ACANAL      ]
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6002 [PAN115      115.00] 3PH    2725.23   13681.8   -73.06
                            LG     3017.81   15150.7   -80.20
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/4.971/61.958, 1.87738  Z-:/4.890/65.110, 2.15533  Z0:/3.780/83.766, 9.15437

                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6004 [PANII115    115.00] 3PH    2449.34   12296.8   -77.70
                            LG     1924.49    9661.8   -85.96
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.486/68.183, 2.49803  Z-:/5.415/70.793, 2.87055  Z0:/10.214/83.885, 9.33392

                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6006 [CHO115      115.00] 3PH    1420.05    7129.3   -80.38
                            LG     1105.52    5550.2   -91.04
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.988/71.291, 2.95281  Z-:/8.670/79.516, 5.40391  Z0:/17.261/88.710, 44.41716
```

```
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6009 [LSA115      115.00] 3PH    1523.97    7651.0   -71.83
                            LG     989.37    4967.1   -78.12
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.873/77.339, 4.45161  Z-:/8.752/78.894, 5.09415  Z0:/23.522/87.753, 25.48693

-------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6012 [MDN115      115.00] 3PH    2004.92   10065.6   -48.96
                            LG     1652.00    8293.8   -50.51
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.636/84.535, 10.45274  Z-:/6.275/87.077, 19.58385  Z0:/11.254/86.452, 16.12905

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6015 [PRO115      115.00] 3PH    1166.22    5854.9   -49.58
                            LG     1271.63    6384.1   -50.52
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/11.451/86.833, 18.07173  Z-:/10.964/87.889, 27.12411  Z0:/9.094/88.826, 48.80104

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6018 [CAC115      115.00] 3PH    2693.64   13523.2   -73.33
                            LG     2976.79   14944.8   -80.09
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.027/62.153, 1.89288  Z-:/4.947/65.243, 2.16848  Z0:/3.826/82.644, 7.74571

-------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6019 [CVI115A     115.00] 3PH    2014.26   10112.5   -77.87
                            LG     1707.18    8570.8   -85.22
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.633/66.583, 2.30897  Z-:/6.572/68.777, 2.57511  Z0:/10.453/81.842, 6.97595

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
```

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  6024 [CHI115      115.00] 3PH    1346.41    6759.6   -81.59
                            LG     930.26    4670.3   -85.21
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.936/69.663, 2.69800  Z-:/9.858/71.048, 2.91218  Z0:/23.398/75.767, 3.94240

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6027 [LOC115A     115.00] 3PH    2442.75   12263.7   -73.76
                            LG     2620.34   13155.2   -81.14
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.493/61.285, 1.82540  Z-:/5.422/64.074, 2.05703  Z0:/4.652/82.873, 7.99779

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6032 [MAR115A     115.00] 3PH    1969.11    9885.8   -75.90
                            LG     1938.35    9731.4   -82.65
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.797/63.072, 1.96873  Z-:/6.737/65.333, 2.17745  Z0:/7.369/80.205, 5.79246

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6036 [SMA115      115.00] 3PH    2418.20   12140.4   -74.21
                            LG     2475.66   12428.9   -81.07
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.596/62.902, 1.95438  Z-:/5.521/65.709, 2.21569  Z0:/5.440/81.013, 6.32289

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6040 [SFR115      115.00] 3PH    2200.89   11049.4   -75.12
                            LG     2086.97   10477.5   -83.13
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.071/62.248, 1.90051  Z-:/6.008/64.741, 2.11949  Z0:/7.355/81.427, 6.63369

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6047 [CLA115      115.00] 3PH     884.71    4441.6   -83.75
                            LG       0.00       0.0     0.00
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/15.046/71.259, 2.94743  Z-:/14.979/72.175, 3.10998  Z0:/0.13E+09/90.000, 9999.999
```

```
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6055 [MOS115B     115.00] 3PH    2167.36   10881.1   -75.98
                            LG     1820.21    9138.2   -83.93
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.233/64.343, 2.08188  Z-:/6.168/66.873, 2.34145  Z0:/10.057/80.549, 6.00706

                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6057 [TOC115      115.00] 3PH    1835.78    9216.4   -79.92
                            LG     1329.08    6672.6   -86.58
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.299/69.985, 2.74527  Z-:/7.239/71.953, 3.06904  Z0:/15.846/81.840, 6.97387

                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6059 [LM1115      115.00] 3PH    2366.23   11879.5   -82.66
                            LG     2621.45   13160.8   -87.08
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.684/72.805, 3.23144  Z-:/5.529/74.916, 3.71019  Z0:/4.251/86.175, 14.95718

                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6060 [LM2115      115.00] 3PH    2369.31   11895.0   -82.71
                            LG     2645.92   13283.7   -87.15
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.677/72.876, 3.24570  Z-:/5.522/74.984, 3.72792  Z0:/4.127/86.587, 16.76748

                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6066 [FFIELD      115.00] 3PH    1753.56    8803.6   -83.07
                            LG     1357.69    6816.2   -85.68
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.619/72.397, 3.15187  Z-:/7.460/74.006, 3.48875  Z0:/14.458/76.891, 4.29426

                                <-SCMVA-> <-Sym I''k rms-->
```

```
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6074 [LMDIST      115.00] 3PH    2365.07   11873.7   -82.75
                            LG     2631.73   13212.5   -87.19
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.687/72.905, 3.25163  Z-:/5.532/75.018, 3.73673  Z0:/4.188/86.458, 16.15382

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                                <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6087 [CAL115      115.00] 3PH    1576.08    7912.6   -45.47
                            LG      696.84    3498.4   -37.46
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.484/85.302, 12.16933  Z-:/8.269/86.265, 15.31885  Z0:/41.074/73.838, 3.45065

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                                <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6088 [LES115      115.00] 3PH    1308.15    6567.5   -44.24
                            LG      574.17    2882.6   -36.77
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/10.251/84.573, 10.52495  Z-:/10.052/85.249, 12.03222  Z0:/50.026/73.940, 3.47356

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                                <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6092 [LVA115      115.00] 3PH    1471.12    7385.7   -44.94
                            LG      648.40    3255.3   -37.16
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.091/84.985, 11.39632  Z-:/8.881/85.830, 13.71563  Z0:/44.164/73.875, 3.45885

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                                <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6170 [CPA115      115.00] 3PH    1363.26    6844.2   -83.09
                            LG     1411.01    7083.9   -86.89
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.881/72.723, 3.21512  Z-:/9.767/74.024, 3.49288  Z0:/9.087/83.348, 8.57464

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                                <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6173 [STR115      115.00] 3PH    2228.41   11187.6   -82.24
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                              LG    1839.03    9232.7   -84.73
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.041/72.267, 3.12719  Z-:/5.915/74.316, 3.56151  Z0:/10.016/76.522, 4.17230

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6174 [PM115-1A    115.00] 3PH    1328.44    6669.3   -84.92
                              LG    1003.47    5037.9   -85.30
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/10.168/74.426, 3.58782  Z-:/10.093/75.806, 3.95359  Z0:/20.124/74.490, 3.60340

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6175 [PM115-2A    115.00] 3PH    1328.44    6669.3   -84.92
                              LG    1003.47    5037.9   -85.30
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/10.168/74.426, 3.58782  Z-:/10.093/75.806, 3.95359  Z0:/20.124/74.490, 3.60340

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6210 [TIN115      115.00] 3PH    2032.14   10202.3   -76.74
                              LG    1805.92    9066.5   -85.50
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.639/65.030, 2.14748  Z-:/6.577/67.405, 2.40291  Z0:/9.475/84.400, 10.19822

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6211 [PM115-9     115.00] 3PH    1937.15    9725.3   -77.38
                              LG       0.00       0.0     0.00
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.969/65.697, 2.21444  Z-:/6.910/67.966, 2.47086  Z0:/0.13E+09/90.000, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6230 [CBA115      115.00] 3PH    2349.43   11795.2   -74.21
                              LG    2351.09   11803.5   -81.84
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.701/61.517, 1.84308  Z-:/5.633/64.192, 2.06789  Z0:/5.959/81.177, 6.44250
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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6261 [CHA 115     115.00] 3PH     777.27    3902.2   -46.17
                            LG      912.63    4581.8   -46.32
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/17.125/87.517, 23.06089  Z-:/17.115/87.543, 23.30257  Z0:/9.517/88.175, 31.37888

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6270 [CAT 115     115.00] 3PH    2363.14   11864.0   -82.56
                            LG     2611.41   13110.4   -86.69
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.693/72.728, 3.21612  Z-:/5.538/74.822, 3.68629  Z0:/4.286/84.984, 11.39270

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6280 [GIR 115     115.00] 3PH    1239.29    6221.8   -83.55
                            LG     1347.71    6766.1   -87.42
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/10.869/73.182, 3.30839  Z-:/10.757/74.368, 3.57392  Z0:/8.485/85.409, 12.45306

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                        <-SCMVA-> <-Sym I''k rms-->
                                              /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6290 [CATII 11    115.00] 3PH    2278.71   11440.1   -82.81
                            LG     2578.30   12944.2   -87.99
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.903/72.937, 3.25800  Z-:/5.752/74.979, 3.72650  Z0:/4.117/90.000, 9999.999

-------------------------------------------------------------------------------------------------------------------
                                  <-SCMVA-> <-Sym I''k rms-->
                                              /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6331 [BAI115      115.00] 3PH     682.20    3424.9   -45.92
                            LG       1.08       5.4   132.51
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/19.411/88.433, 36.56009  Z-:/19.376/88.517, 38.61978  Z0:/36727.398/-89.996, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                              /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6332 [BAM115      115.00] 3PH     493.97    2479.9   -40.86
                            LG       1.09       5.5   135.45
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/26.895/86.323, 15.55989  Z-:/26.866/86.366, 15.74658  Z0:/36727.398/-89.996, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                              /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6350 [PM115-8     115.00] 3PH    1996.81   10024.9   -76.73
                            LG     1846.30    9269.2   -82.81
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.743/64.682, 2.11381  Z-:/6.683/66.991, 2.35483  Z0:/8.583/78.486, 4.90902

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                                  <-SCMVA-> <-Sym I''k rms-->
                                              /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6550 [CHAZ115     115.00] 3PH    1155.96    5803.4   -49.49
                            LG     1530.07    7681.6   -50.38
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/11.553/86.746, 17.58724  Z-:/11.065/87.788, 25.88954  Z0:/3.571/90.000, 9999.999
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                                  <-SCMVA-> <-Sym I''k rms-->
                                              /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6580 [LBO115      115.00] 3PH    1820.37    9139.0   -78.80
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                              LG       0.00       0.0     0.00
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.335/67.457, 2.40908  Z-:/7.278/69.445, 2.66677  Z0:/0.13E+09/90.000, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6123 [MIR115      115.00] 3PH    1619.37    8129.9   -79.91
                              LG    1495.53    7508.2   -84.08
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.443/69.538, 2.68003  Z-:/8.395/71.110, 2.92248  Z0:/10.666/79.050, 5.16860
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Cortocircuito Año 2020

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                              PSS®E ASCC SHORT CIRCUIT CURRENTS          WED, MAY 18 2011  10:47
PLAN DE EXPANSIÓN DEL SISTEMA INTERCONECTADO NACIONAL
BASE DE DATOS REGIONAL - DEMANDA MÁXIMA - ÉPOCA HÚMEDA 2020
                         OUTPUT FOR AREA 6 [PANAMA      ]
                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6000 [FRONTER     230.00] 3PH    3015.04    7568.4   -49.48
                              LG    3073.68    7715.6   -49.02
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/17.784/82.235, 7.33352  Z-:/17.628/82.644, 7.74636  Z0:/16.929/80.366, 5.89126

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6001 [PAN230      230.00] 3PH    3601.85    9041.4   -74.46
                              LG    3599.77    9036.2   -81.30
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/14.331/65.165, 2.16070  Z-:/14.218/68.178, 2.49740  Z0:/14.842/82.316, 7.41125

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6003 [PANII230    230.00] 3PH    3652.48    9168.5   -74.98
                              LG    3843.18    9647.2   -79.96
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/14.416/66.834, 2.33697  Z-:/14.269/69.482, 2.67208  Z0:/12.617/80.172, 5.77247
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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6005 [CHO230      230.00] 3PH    2688.18    6747.9   -75.20
                            LG     2604.55    6538.0   -81.97
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/18.954/67.877, 2.45991  Z-:/18.912/72.432, 3.15843  Z0:/21.177/82.710, 7.81683

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6008 [LSA230      230.00] 3PH    3418.21    8580.4   -67.70
                            LG     2676.32    6718.2   -70.17
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/15.506/74.371, 3.57465  Z-:/15.450/76.177, 4.06412  Z0:/28.485/78.559, 4.94108

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6011 [MDN230      230.00] 3PH    4245.38   10656.8   -51.09
                            LG     3366.47    8450.6   -48.94
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/12.425/82.078, 7.18641  Z-:/12.266/83.091, 8.25229  Z0:/22.371/77.000, 4.33152

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6014 [PRO230      230.00] 3PH    3238.67    8129.8   -49.23
                            LG     3564.25    8947.0   -49.22
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/16.528/82.894, 8.02185  Z-:/16.326/83.446, 8.70410  Z0:/12.203/82.138, 7.24149

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6096 [FOR230      230.00] 3PH    4387.25   11012.9   -50.87
                            LG     4616.96   11589.6   -49.52
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/12.060/83.485, 8.75683  Z-:/11.974/84.066, 9.62140  Z0:/10.378/78.349, 4.84952

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                                <-SCMVA-> <-Sym I''k rms-->
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                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6100 [BAY230      230.00] 3PH    2077.23    5214.3   -80.67
                            LG     2337.73    5868.2   -84.39
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/25.906/74.939, 3.71610  Z-:/25.176/76.427, 4.14202  Z0:/18.245/87.059, 19.46245

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                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6103 [COP23O      230.00] 3PH    2858.35    7175.1   -77.68
                            LG     2831.17    7106.9   -82.10
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/18.490/69.908, 2.73388  Z-:/18.301/71.963, 3.07092  Z0:/19.406/80.793, 6.16962

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                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6105 [PAM230      230.00] 3PH    2660.90    6679.4   -75.36
                            LG     2574.23    6461.9   -82.08
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/19.148/68.045, 2.48071  Z-:/19.110/72.553, 3.18185  Z0:/21.473/82.717, 7.82429

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                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6171 [PAC230      230.00] 3PH    2487.44    6244.0   -78.77
                            LG     2433.91    6109.6   -82.88
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/21.275/71.092, 2.91938  Z-:/21.032/72.867, 3.24388  Z0:/23.117/81.112, 6.39425

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                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6178 [EST230      230.00] 3PH    3892.25    9770.4   -51.88
                            LG     3754.51    9424.6   -51.31
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/13.512/83.598, 8.91273  Z-:/13.453/84.040, 9.57932  Z0:/15.066/81.592, 6.76564

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                                <-SCMVA-> <-Sym I''k rms-->
                                          /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6179 [GUA230      230.00] 3PH    4169.76   10467.0   -51.99
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                             LG    3979.37    9989.1   -50.95
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/12.614/83.575, 8.88082  Z-:/12.554/84.053, 9.59932  Z0:/14.502/80.317, 5.86042

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6182 [VEL230      230.00] 3PH    4089.85   10266.4   -58.40
                             LG    2507.73    6294.9   -50.85
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/12.823/80.383, 5.90177  Z-:/12.764/81.277, 6.51771  Z0:/37.571/67.397, 2.40200

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6240 [LGU 230     230.00] 3PH    2442.99    6132.4   -71.92
                             LG    1909.44    4793.1   -75.40
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/21.196/72.432, 3.15855  Z-:/21.190/74.656, 3.64433  Z0:/39.053/78.480, 4.90619

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6260 [CHA 230     230.00] 3PH    2607.87    6546.3   -46.32
                             LG    2503.25    6283.7   -44.70
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/20.556/83.133, 8.30355  Z-:/20.499/83.218, 8.40874  Z0:/23.238/78.583, 4.95186

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6263 [ESP230      230.00] 3PH    2510.00    6300.6   -45.31
                             LG    2691.43    6756.1   -41.62
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/21.366/83.640, 8.97126  Z-:/21.320/83.729, 9.10038  Z0:/17.405/70.748, 2.86331

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6330 [BAI230      230.00] 3PH    2594.83    6513.6   -48.38
                             LG    2908.63    7301.3   -49.13
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/20.622/82.937, 8.07120  Z-:/20.437/83.326, 8.54576  Z0:/14.140/85.309, 12.18620
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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6340 [CAN 230     230.00] 3PH    2178.45    5468.4   -48.46
                            LG     2018.86    5067.8   -42.80
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/24.309/81.921, 7.04499  Z-:/24.257/82.088, 7.19568  Z0:/30.757/67.165, 2.37481

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6360 [GLA230      230.00] 3PH    3761.23    9441.5   -45.12
                            LG     3365.63    8448.5   -46.12
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/14.053/77.002, 4.33212  Z-:/13.978/77.358, 4.45836  Z0:/19.091/79.198, 5.24098

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6363 [ZAM230      230.00] 3PH    3213.87    8067.5   -37.72
                            LG     2746.65    6894.7   -41.45
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/16.535/69.877, 2.72922  Z-:/16.448/70.111, 2.76408  Z0:/25.212/78.334, 4.84343

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6366 [EVA230      230.00] 3PH    2755.58    6917.1   -31.47
                            LG     2329.08    5846.5   -37.74
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/19.342/63.775, 2.03005  Z-:/19.248/63.937, 2.04461  Z0:/30.571/77.865, 4.65080

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6380 [BOQIII 230  230.00] 3PH    3273.56    8217.4   -49.33
                            LG     2553.75    6410.5   -46.85
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/16.243/82.380, 7.47515  Z-:/16.097/82.904, 8.03327  Z0:/30.200/76.960, 4.31781

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
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X---------- BUS ----------X          MVA        AMP      DEG
  6400 [FRONTCHA    230.00] 3PH    2242.20    5628.4   -46.57
                            LG     1766.47    4434.2   -43.61
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/23.916/82.400, 7.49509  Z-:/23.839/82.467, 7.56232  Z0:/43.453/76.149, 4.05555

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6430 [ANTON230    230.00] 3PH    2066.67    5187.8   -78.27
                            LG     2473.14    6208.1   -78.64
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/25.786/78.552, 4.93800  Z-:/25.776/79.719, 5.51328  Z0:/13.086/78.083, 4.73832

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6500 [FRONTDOM    230.00] 3PH    2584.26    6487.1   -52.43
                            LG     2805.36    7042.1   -51.57
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/20.931/82.515, 7.61130  Z-:/20.898/82.663, 7.76615  Z0:/16.034/79.222, 5.25319

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6590 [24DIC230    230.00] 3PH    2902.34    7285.5   -77.40
                            LG     2793.05    7011.2   -81.79
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/18.177/69.413, 2.66225  Z-:/17.993/71.498, 2.98830  Z0:/20.672/79.681, 5.49248

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6680 [BFRIO230    230.00] 3PH    2856.84    7171.3   -40.94
                            LG     2935.88    7369.7   -42.79
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/18.787/74.779, 3.67524  Z-:/18.564/75.149, 3.77129  Z0:/17.542/80.162, 5.76628

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6690 [DOM230      230.00] 3PH    2534.19    6361.4   -52.71
                            LG     3123.59    7840.9   -52.70
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THEVENIN IMPEDANCE, X/R (OHM) Z+:/21.359/82.786, 7.90077 Z-:/21.328/82.932, 8.06466 Z0:/9.300/82.390, 7.48489

X---------- BUS ----------X			<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6691 [ALTO230	230.00]	3PH	2312.64	5805.2	-46.59
		LG	2935.34	7368.3	-48.04

THEVENIN IMPEDANCE, X/R (OHM) Z+:/23.472/76.723, 4.23792 Z-:/23.434/76.842, 4.27763 Z0:/8.660/85.709, 13.32782

X---------- BUS ----------X			<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6695 [PANDO230	230.00]	3PH	1875.81	4708.7	-52.58
		LG	2432.12	6105.2	-52.97

THEVENIN IMPEDANCE, X/R (OHM) Z+:/28.891/82.942, 8.07690 Z-:/28.861/83.044, 8.19592 Z0:/9.104/85.504, 12.71688

X---------- BUS ----------X			<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6698 [MLIRIO230	230.00]	3PH	2054.20	5156.5	-52.63
		LG	2743.06	6885.7	-53.09

THEVENIN IMPEDANCE, X/R (OHM) Z+:/26.373/82.890, 8.01737 Z-:/26.343/83.004, 8.14848 Z0:/6.547/86.600, 16.82935

X---------- BUS ----------X			<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6760 [SBA230	230.00]	3PH	2317.56	5817.6	-64.07
		LG	1097.19	2754.2	-58.24

THEVENIN IMPEDANCE, X/R (OHM) Z+:/22.660/81.089, 6.37802 Z-:/22.624/81.763, 6.90817 Z0:/98.694/72.421, 3.15638

X---------- BUS ----------X			<-SCMVA-> MVA	<-Sym I''k rms--> /I/ AMP	AN(I) DEG
6790 [SMA230	230.00]	3PH	2991.75	7509.9	-61.41
		LG	2333.99	5858.8	-66.65

THEVENIN IMPEDANCE, X/R (OHM) Z+:/17.737/68.146, 2.49334 Z-:/17.618/69.668, 2.69865 Z0:/33.078/78.158, 4.76918

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6840 [BUR230      230.00] 3PH    2471.57    6204.2   -49.09
                            LG     3155.46    7920.9   -50.04
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/21.707/82.933, 8.06668  Z-:/21.511/83.336, 8.55852  Z0:/7.814/88.030, 29.07382

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6860 [BBL230      230.00] 3PH    3190.63    8009.2   -58.93
                            LG     2018.40    5066.6   -53.24
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/16.441/79.777, 5.54521  Z-:/16.384/80.515, 5.98508  Z0:/45.460/69.721, 2.70638

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6870 [TABII230    230.00] 3PH    2852.89    7161.4   -57.97
                            LG     1921.38    4823.1   -54.93
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/18.405/80.174, 5.77366  Z-:/18.345/80.765, 6.15038  Z0:/45.346/74.428, 3.58826

------------------------------------------------------------------------------------------------------------------------
                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6880 [CHAII230    230.00] 3PH    2325.06    5836.4   -46.29
                            LG     2483.55    6234.2   -46.45
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/23.042/83.128, 8.29789  Z-:/22.993/83.214, 8.40406  Z0:/18.680/83.562, 8.86231

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6920 [STR230      230.00] 3PH    4001.41   10044.4   -83.93
                            LG     4689.33   11771.2   -85.62
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/13.514/82.304, 7.39965  Z-:/13.443/83.167, 8.34562  Z0:/7.667/88.420, 36.25039
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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6002 [PAN115      115.00] 3PH    3296.94   16552.1   -74.93
                            LG     3449.61   17318.6   -82.13
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/4.111/63.104, 1.97147  Z-:/4.090/65.582, 2.20263  Z0:/3.730/83.494, 8.76837

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6004 [PANII115    115.00] 3PH    2793.91   14026.6   -79.92
                            LG     1988.34    9982.4   -88.50
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/4.840/69.102, 2.61902  Z-:/4.825/71.026, 2.90846  Z0:/10.899/84.433, 10.26009

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6006 [CHO115      115.00] 3PH    1520.66    7634.4   -83.08
                            LG     1123.47    5640.3   -93.82
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.183/71.931, 3.06510  Z-:/8.041/80.601, 6.04115  Z0:/17.249/88.704, 44.19191

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6009 [LSA115      115.00] 3PH    1586.83    7966.6   -74.44
                            LG     1001.29    5026.9   -80.99
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.452/77.013, 4.33597  Z-:/8.363/78.389, 4.86666  Z0:/23.520/87.752, 25.47773

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6012 [MDN115      115.00] 3PH    2048.13   10282.5   -51.81
                            LG     1667.63    8372.2   -53.53
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.485/84.381, 10.16363  Z-:/6.159/87.251, 20.82652  Z0:/11.254/86.452, 16.12906

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
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  6015 [PRO115      115.00] 3PH    1162.01    5833.8   -53.43
                            LG    1267.15    6361.6   -54.49
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/11.466/86.608, 16.87333  Z-:/10.989/87.829, 26.37799  Z0:/9.094/88.826, 48.80104

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6018 [CAC115      115.00] 3PH    3255.61   16344.6   -75.21
                            LG    3400.56   17072.3   -81.97
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/4.160/63.346, 1.99226  Z-:/4.140/65.759, 2.22084  Z0:/3.774/82.393, 7.48745

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6019 [CVI115A     115.00] 3PH    2261.63   11354.4   -80.09
                            LG    1801.34    9043.5   -87.48
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.918/67.435, 2.40645  Z-:/5.911/69.012, 2.60676  Z0:/10.630/82.175, 7.27635

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6024 [CHI115      115.00] 3PH    1888.32    9480.2   -81.35
                            LG    1079.15    5417.8   -84.76
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.113/70.423, 2.81193  Z-:/7.090/71.595, 3.00525  Z0:/23.165/75.563, 3.88425

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6027 [LOC115A     115.00] 3PH    2887.15   14494.8   -75.64
                            LG    2930.51   14712.4   -83.18
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/4.633/62.105, 1.88907  Z-:/4.620/64.224, 2.07082  Z0:/4.622/82.708, 7.81524

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6032 [MAR115A     115.00] 3PH    2248.77   11289.8   -77.87
                            LG    2101.23   10549.1   -84.55
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.926/63.946, 2.04536  Z-:/5.919/65.592, 2.20366  Z0:/7.343/80.095, 5.72649
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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6036 [SMA115      115.00] 3PH    2856.90   14342.9   -76.14
                            LG     2757.11   13841.9   -82.89
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/4.737/64.094, 2.05885  Z-:/4.721/66.241, 2.27168  Z0:/5.397/80.806, 6.17835

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6040 [SFR115      115.00] 3PH    2545.65   12780.3   -77.14
                            LG     2268.63   11389.5   -85.26
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.229/63.030, 1.96515  Z-:/5.221/64.874, 2.13225  Z0:/7.354/81.410, 6.61990

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6047 [CLA115      115.00] 3PH    1705.17    8560.7   -82.07
                            LG      801.89    4025.8   -87.01
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.872/70.798, 2.87122  Z-:/7.858/71.900, 3.05950  Z0:/34.556/77.730, 4.59779

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6055 [MOS115B     115.00] 3PH    2511.14   12607.0   -78.09
                            LG     1965.03    9865.3   -85.71
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.378/65.671, 2.21174  Z-:/5.369/67.558, 2.42111  Z0:/10.024/80.450, 5.94404

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6057 [TOC115      115.00] 3PH    2025.04   10166.6   -82.11
                            LG     1374.00    6898.1   -88.75
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.656/70.839, 2.87789  Z-:/6.648/72.232, 3.12053  Z0:/16.257/82.333, 7.42880

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                                <-SCMVA-> <-Sym I''k rms-->
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                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6059 [LM1115      115.00] 3PH    2982.61   14974.0   -83.09
                            LG    3267.02   16401.9   -85.99
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/4.514/76.312, 4.10604  Z-:/4.423/77.717, 4.59293  Z0:/3.450/84.949, 11.31378

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                                 <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6060 [LM2115      115.00] 3PH    2975.71   14939.4   -83.09
                            LG    3276.61   16450.0   -86.06
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/4.524/76.306, 4.10394  Z-:/4.433/77.711, 4.59055  Z0:/3.396/85.296, 12.15150

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                                 <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6066 [FFIELD      115.00] 3PH    2067.61   10380.3   -82.55
                            LG    1511.81    7589.9   -83.44
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.459/74.797, 3.67987  Z-:/6.363/75.805, 3.95336  Z0:/13.680/76.044, 4.02396

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                                 <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6074 [LMDIST      115.00] 3PH    2974.60   14933.8   -83.17
                            LG    3268.00   16406.8   -86.11
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/4.526/76.387, 4.12926  Z-:/4.434/77.795, 4.62313  Z0:/3.424/85.214, 11.94391

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                                 <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6087 [CAL115      115.00] 3PH    1590.13    7983.1   -48.36
                            LG     697.89    3503.7   -40.43
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.401/85.191, 11.88519  Z-:/8.203/86.289, 15.41963  Z0:/41.074/73.838, 3.45065

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                                 <-SCMVA-> <-Sym I''k rms-->
                                                  /I/    AN(I)
X---------- BUS ----------X          MVA         AMP      DEG
  6088 [LES115      115.00] 3PH    1316.56    6609.7   -47.15
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                              LG     574.71    2885.3   -39.75
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/10.176/84.475, 10.33829  Z-:/9.992/85.254, 12.04466  Z0:/50.026/73.940, 3.47356

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6092 [LVA115      115.00] 3PH    1482.76    7444.1   -47.84
                              LG     649.23    3259.4   -40.13
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.010/84.878, 11.15636  Z-:/8.818/85.845, 13.76648  Z0:/44.164/73.875, 3.45885

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6170 [CPA115      115.00] 3PH    1528.56    7674.1   -83.00
                              LG    1524.47    7653.5   -86.15
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.812/74.567, 3.62221  Z-:/8.752/75.364, 3.82913  Z0:/9.002/83.094, 8.25632

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6173 [STR115      115.00] 3PH    3213.33   16132.3   -83.65
                              LG    3367.62   16906.9   -86.36
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/4.207/77.900, 4.66446  Z-:/4.149/79.160, 5.22240  Z0:/3.704/85.310, 12.19012

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6174 [PM115-1A    115.00] 3PH    1535.53    7709.0   -85.71
                              LG    1147.05    5758.7   -84.71
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.819/77.262, 4.42365  Z-:/8.794/78.071, 4.73332  Z0:/17.816/74.879, 3.70086

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6175 [PM115-2A    115.00] 3PH    1535.53    7709.0   -85.71
                              LG    1147.05    5758.7   -84.71
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/8.819/77.262, 4.42365  Z-:/8.794/78.071, 4.73332  Z0:/17.816/74.879, 3.70086
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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6210 [TIN115      115.00] 3PH    2330.15   11698.4   -78.86
                            LG     1944.99    9764.7   -87.43
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.787/66.375, 2.28622  Z-:/5.780/68.124, 2.49063  Z0:/9.466/84.359, 10.12345

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6211 [PM115-9     115.00] 3PH    2205.59   11073.0   -79.52
                            LG        0.00       0.0     0.00
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.119/67.062, 2.36297  Z-:/6.113/68.719, 2.56739  Z0:/0.13E+09/90.000, 9999.999

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6230 [CBA115      115.00] 3PH    2753.95   13826.1   -76.14
                            LG     2593.29   13019.5   -83.88
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/4.846/62.304, 1.90507  Z-:/4.835/64.316, 2.07933  Z0:/5.937/81.071, 6.36484

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6261 [CHA 115     115.00] 3PH     779.05    3911.2   -49.63
                            LG     914.01    4588.7   -49.80
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/17.067/87.455, 22.49468  Z-:/17.058/87.475, 22.67922  Z0:/9.517/88.175, 31.37888

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6270 [CAT 115     115.00] 3PH    2964.75   14884.4   -82.79
                            LG     3221.67   16174.2   -85.27
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/4.541/76.011, 4.01414  Z-:/4.449/77.403, 4.47487  Z0:/3.562/83.013, 8.15934

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                                <-SCMVA-> <-Sym I''k rms-->
                                             /I/    AN(I)
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X---------- BUS ----------X          MVA        AMP      DEG
  6280 [GIR 115     115.00] 3PH    1374.10    6898.6   -83.32
                            LG     1449.20    7275.6   -86.67
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/9.802/74.890, 3.70351  Z-:/9.744/75.608, 3.89694  Z0:/8.426/85.210, 11.93413

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6290 [CATII 11    115.00] 3PH    2889.78   14507.9   -83.24
                            LG     3042.41   15274.2   -87.83
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/4.661/76.584, 4.19245  Z-:/4.574/77.918, 4.67184  Z0:/4.117/90.000, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6331 [BAI115      115.00] 3PH     680.40    3415.9   -49.81
                            LG       1.08       5.4   128.59
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/19.428/88.403, 35.86508  Z-:/19.396/88.491, 37.94808  Z0:/36727.398/-89.996, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6332 [BAM115      115.00] 3PH     493.05    2475.3   -44.77
                            LG       1.09       5.4   131.53
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/26.910/86.308, 15.49558  Z-:/26.882/86.354, 15.69244  Z0:/36727.398/-89.996, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6350 [PM115-8     115.00] 3PH    2285.22   11472.8   -78.82
                            LG     1995.84   10020.0   -84.57
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/5.880/65.866, 2.23198  Z-:/5.874/67.553, 2.42054  Z0:/8.547/78.372, 4.85953

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6550 [CHAZ115     115.00] 3PH    1151.79    5782.5   -53.34
                            LG     1524.27    7652.5   -54.32
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THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/11.568/86.523, 16.45993  Z-:/11.090/87.729, 25.21745  Z0:/3.571/90.000, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6580 [LBO115      115.00] 3PH    2020.34   10143.0   -81.02
                            LG       0.00       0.0     0.00
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.620/68.272, 2.50934  Z-:/6.615/69.681, 2.70057  Z0:/0.13E+09/90.000, 9999.999

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6910 [GON115      115.00] 3PH    2113.61   10611.2   -81.34
                            LG    1287.80    6465.3   -87.63
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/6.376/70.250, 2.78521  Z-:/6.363/71.674, 3.01910  Z0:/18.755/80.321, 5.86329

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                                  <-SCMVA-> <-Sym I''k rms-->
                                                /I/    AN(I)
X---------- BUS ----------X          MVA        AMP      DEG
  6123 [MIR115      115.00] 3PH    1772.11    8896.8   -81.71
                            LG    1576.86    7916.5   -85.43
THEVENIN IMPEDANCE, X/R  (OHM)    Z+:/7.713/70.659, 2.84896  Z-:/7.708/71.747, 3.03211  Z0:/10.641/78.980, 5.13480
```