

**Centro Nacional de Despacho de Carga (CNDC)**  
**Informe de Operación del SIN (Sistema Interconectado Nacional)**  
 Fecha: 20/07/2017

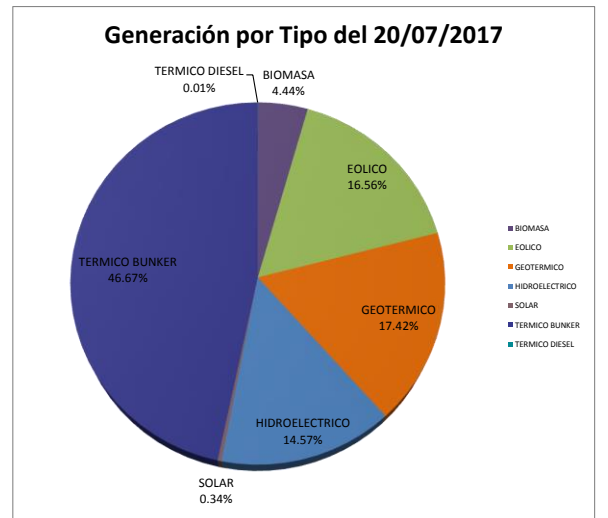
Resumen de Producción de Energía Neta (MWh) del 20/07/2017							
Agente	GGD	Real			Programado		
		Día	Mes	Año	Día	Mes	Año
ALBANISA	PCG1	49.5	786.6	8,438.8	18.2	1,640.2	6,816.7
	PCG2	0.0	232.9	6,014.6	0.0	2,490.2	7,617.6
	PCG3	23.4	677.0	9,123.9	0.0	3,482.5	11,921.2
	PCG4	0.0	82.7	3,642.2	0.0	497.1	2,470.9
	PCG5	0.0	53.7	2,198.0	0.0	210.3	1,631.0
	PCG6	115.6	2,574.2	23,467.1	116.1	4,133.7	25,800.0
	PCG7	288.0	7,326.5	65,734.8	370.4	13,633.0	74,112.7
	PCG8	70.8	2,368.6	19,000.7	96.3	5,377.8	32,398.9
	PCG9	224.2	5,763.2	48,916.6	336.6	11,262.6	72,414.0
	<b>PCG</b>	<b>771.6</b>	<b>19,865.6</b>	<b>186,536.8</b>	<b>937.6</b>	<b>42,727.4</b>	<b>235,183.0</b>
	PHC1	0.0	21.0	159.8	0.0	0.0	50.9
	PHC2	0.9	251.6	2,579.8	0.0	0.1	802.0
	<b>PHC</b>	<b>0.9</b>	<b>272.6</b>	<b>2,739.6</b>	<b>0.0</b>	<b>0.1</b>	<b>852.9</b>
	ABR	335.2	6,212.7	73,238.5	442.9	14,838.0	100,965.1
	<b>TOTAL</b>	<b>1,107.7</b>	<b>26,350.9</b>	<b>262,514.8</b>	<b>1,380.5</b>	<b>57,565.5</b>	<b>337,001.0</b>
AMAYO 1	AMY1	383.0	6,812.0	85,581.9	528.8	15,227.0	115,031.0
AMAYO 2	AMY2	275.6	4,932.9	55,838.4	332.0	9,267.4	66,973.3
BLUE POWER	PBP	376.7	6,829.4	87,055.3	411.7	14,139.0	116,626.3
EOLO	EOL	531.0	9,904.0	113,010.7	634.3	19,628.0	139,113.0
EEC	EEC				798.3	24,160.0	182,436.0
	EEC20	1,349.5	21,716.4	186,357.5	199.4	7,108.2	46,808.4
	<b>TOTAL</b>	<b>1,349.5</b>	<b>21,716.4</b>	<b>186,357.5</b>	<b>997.6</b>	<b>31,268.2</b>	<b>229,244.4</b>
GEOSA	PN1	622.8	12,268.9	103,474.5	604.0	18,788.0	109,764.0
	PN2	0.0	0.0	29,254.6	0.0	0.0	28,748.0
	<b>TOTAL</b>	<b>622.8</b>	<b>12,268.9</b>	<b>132,729.1</b>	<b>604.0</b>	<b>18,788.0</b>	<b>138,512.0</b>
GESARSA	GSR	0.0	0.0	0.0	0.0	0.0	
GREEN POWER	MTL	0.0	0.0	105,363.9	0.0	0.0	123,672.0
HIDRO PANTASMA	HPA1	309.4	6,003.1	27,409.5	130.6	4,202.7	13,408.0
	HPA2				130.6	4,202.7	13,408.0
	<b>TOTAL</b>	<b>309.4</b>	<b>6,003.1</b>	<b>27,409.5</b>	<b>261.1</b>	<b>8,405.4</b>	<b>26,816.0</b>
IHSA	PHD	112.8	1,855.5	10,315.6	0.0	2,896.1	10,836.8
PCA-PCF	PCA1	443.1	8,046.2	69,015.7	482.9	15,111.0	79,720.5
	PCA2	464.9	8,476.4	73,857.1	482.9	15,111.0	79,720.5
	<b>PCA</b>	<b>908.0</b>	<b>16,522.7</b>	<b>142,872.8</b>	<b>965.8</b>	<b>30,222.0</b>	<b>159,441.0</b>
	PCF1	0.0	0.0	0.0	0.0	0.0	0.0
	PCF2	0.0	0.0	0.0	0.0	0.0	0.0
	<b>PCF</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>TOTAL</b>	<b>908.0</b>	<b>16,522.7</b>	<b>142,872.8</b>	<b>965.8</b>	<b>30,222.0</b>	<b>159,441.0</b>	
PENSA	PEN3	718.8	14,044.5	142,486.8	720.0	25,296.0	166,852.0
	PEN4	695.1	13,409.2	123,076.1	720.0	23,064.0	145,270.0
	<b>TOTAL</b>	<b>1,414.0</b>	<b>27,453.8</b>	<b>265,562.9</b>	<b>1,440.0</b>	<b>48,360.0</b>	<b>312,122.0</b>
PHL	PHL1	171.7	3,099.0	26,389.6	159.6	5,822.0	30,108.8
	PHL2	171.1	3,071.6	26,638.0	159.6	5,822.0	30,108.8
	<b>TOTAL</b>	<b>342.8</b>	<b>6,170.6</b>	<b>53,027.6</b>	<b>319.2</b>	<b>11,644.0</b>	<b>60,217.6</b>
AGSA	PMN	683.1	15,190.3	126,730.0	654.3	21,128.4	127,909.1
PLB-PMG	PLB1	0.0	0.0	0.0	0.0	0.0	0.0
	PLB2	0.0	0.0	0.0	0.0	0.0	0.0
	<b>PLB</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
	PMG3	0.0	0.0	0.0	0.0	0.0	0.0
	PMG4	16.3	483.0	4,711.3	45.0	876.5	4,924.4
	PMG5	16.1	475.0	5,005.9	59.1	1,433.1	6,433.4
	<b>PMG</b>	<b>32.4</b>	<b>958.0</b>	<b>9,717.2</b>	<b>104.1</b>	<b>2,309.6</b>	<b>11,357.8</b>
<b>TOTAL</b>	<b>32.4</b>	<b>958.0</b>	<b>9,717.2</b>	<b>104.1</b>	<b>2,309.6</b>	<b>11,357.8</b>	
CENSA	CEN	867.7	17,692.2	153,518.1	922.8	19,340.0	123,614.5
MONTE ROSA	MTR	509.7	9,246.2	130,588.0	296.4	14,136.0	129,792.0
NSEL	NSL	0.0	0.0	79,471.9	0.0	0.0	93,863.9
PMT	PMT1	443.0	8,447.0	44,365.0	444.0	13,853.3	93,498.0
	PMT2	0.0	0.0	44,252.0	0.0	0.0	0.0
	PMT3	143.0	2,752.8	24,033.0	134.4	4,002.7	28,019.0
	<b>TOTAL</b>	<b>586.0</b>	<b>11,199.8</b>	<b>112,650.0</b>	<b>578.4</b>	<b>17,856.0</b>	<b>121,517.0</b>
SOLARIS	PSL	38.6	1,026.9	2,940.6	51.4	1,939.5	1,990.4
TPC	TPC	1,030.9	19,106.7	178,101.3	992.3	35,404.0	212,086.0
<b>TOTAL</b>	<b>11,481.6</b>	<b>221,240.2</b>	<b>2321,357.1</b>	<b>11,474.8</b>	<b>379,524.1</b>	<b>2657,737.0</b>	

Resumen de Producción de Energía Neta (MWh) por Tipo del 20/07/2017						
Tipo Recurso	Real			Programado		
	Día	Mes	Año	Día	Mes	Año
BIOMASA	509.7	9,246.2	315,423.9	296.4	14,136.0	347,327.9
EOLICO	1,901.4	34,690.9	414,724.7	2,349.7	73,099.4	538,708.7
GEOTERMICO	2,000.0	38,653.5	378,212.9	2,018.4	66,216.0	433,639.0
HIDROELECTRICO	1,673.0	30,551.9	233,625.5	1,546.1	53,167.5	257,311.4
SOLAR	38.6	1,026.9	2,940.6	51.4	1,939.5	1,990.4
TERMICO BUNKER	5,358.1	106,798.1	973,690.1	5,212.8	170,965.6	1,077,906.8
TERMICO DIESEL	0.9	272.6	2,739.6	0.0	0.1	852.9
<b>TOTAL</b>	<b>11,481.6</b>	<b>221,240.2</b>	<b>2321,357.1</b>	<b>11,474.8</b>	<b>379,524.1</b>	<b>2657,737.0</b>

Balance de Energía Neta (MWh) del 20/07/2017			
Energía	Día	Mes	Año
Interconexión Neta	38.1	-464.3	-3,074.2
AMY-L9030	389.5	12,271.0	48,395.5
TCPI-L9150	824.3	16,154.0	135,135.5
LNI-L9040	-144.7	-7,448.2	-40,067.0
SND-L9090	-126.4	-7,157.5	-19,683.4
<b>Generación</b>	<b>11,481.6</b>	<b>206,049.9</b>	<b>2194,627.1</b>
<b>No Servida</b>	<b>9.1</b>	<b>1,248.7</b>	<b>10,646.5</b>
<b>Demanda Neta</b>	<b>12,433.5</b>	<b>221,117.8</b>	<b>2329,054.2</b>

Comportamiento de la Demanda (MW) del 20/07/2017			
Potencia Máxima	Día	Mes	Año
Real	627.7	645.8	709.1
Fecha y Hora	20/07/2017 11:00	06/07/2017 11:00	04/04/2017 19:00
Calculada	627.7	652.5	710.4
Fecha y Hora	20/07/2017 11:00	06/07/2017 11:00	04/04/2017 19:00
Programado	640.4	684.6	715.0
Fecha y Hora	20/07/2017 19:00	07/2017	04/2017

Resumen del Mercado Eléctrico Regional (MER) del 20/07/2017			
Agente	Real		
	Día	Mes	Año
<b>Resumen de Ventas (MWh)</b>			
ALBANISA	0.00	0.00	103.43
DISNORTE	0.00	0.00	461.25
DISSUR	0.00	0.00	460.98
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>	<b>1,025.66</b>
<b>Resumen de Compras (MWh)</b>			
BLUEFIELDS	84.71	1,542.75	11,725.12
DISNORTE	348.74	5,089.74	48,450.58
DISSUR	357.00	5,544.76	48,689.95
EEC20	0.00	0.00	2,021.42
MULUKUKU	28.67	508.02	4,323.65
SIUNA	85.59	1,598.20	12,669.73
<b>TOTAL</b>	<b>904.71</b>	<b>14,283.47</b>	<b>127,880.45</b>



Precio Promedio (US\$/Bbl.)		
Combustible	Día	Año
Bunker	48.6	44.5
Diesel	54.9	59.8

Disponibilidad y Costo Variable Semanal hasta 07/21/2017 07:00			
GGD	Instalada	Real	Costo
	MW		US\$/MWh
ABR	39.6	21.3	0.0
AMY1	39.9	18.9	0.0
AMY2	23.1	11.6	0.0
CEN	57.0	51.0	87.4
EEC	51.4	51.4	86.1
EEC20	18.5	18.5	83.1
EOL	44.0	23.8	0.0
GSR	5.4	0.0	87.0
HPA1	6.5	6.5	80.8
HPA2	6.5	6.5	80.8
MTL	38.0	0.0	44.7
MTR	35.0	13.0	113.2
NSL	30.0	0.0	121.7
PBP	39.6	15.8	0.0
PCA1	25.0	24.0	77.3
PCA2	25.0	24.0	77.3
PCF1	25.0	0.0	0.0
PCF2	25.0	0.0	0.0
PCG1	19.2	19.2	93.9
PCG2	19.2	19.0	94.0
PCG3	19.2	18.0	93.8
PCG4	19.2	19.2	96.1
PCG5	18.6	17.7	96.6
PCG6	12.9	9.6	83.7
PCG7	38.0	26.9	88.4
PCG8	25.3	19.5	86.6
PCG9	45.3	38.0	86.4
PCHN	15.0		
PEN3	36.0	30.0	95.7
PEN4	36.0	30.0	92.9
PHC1	15.0	11.6	120.4
PHC2	45.0	39.5	120.4
PHL1	8.5	8.5	77.3
PHL2	8.5	8.5	77.3
PLB1	23.0	0.0	201.8
PLB2	35.0	0.0	151.4
PMG3	42.0	0.0	113.5
PMG4	5.5	5.2	90.6
PMG5	5.5	5.2	89.3
PMN	75.0	70.0	92.5
PMT1	30.0	18.6	97.8
PMT2	30.0	0.0	97.8
PMT3	7.0	5.6	97.8
PNI1	50.0	50.0	95.0
PNI2	50.0	50.0	98.2
PSL	12.4	2.7	0.0
TPC	50.9	50.9	80.5
<b>TOTAL</b>	<b>1,331.6</b>	<b>859.5</b>	<b>--</b>

Fuera de servicio por resolución del INE
Mantenimiento
Reducción por restricción de Planta
Generación no despachable
Reducción por calidad y seguridad
Fuera de Servicio y Disponible en Standby Frio
Control de AGC
Indisponibilidad o Restricción del Recurso de Generación

Combustible (Miles Gls.) del 20/07/2017								
GGD	Consumo*			Recibido			Inventario	Precio (US\$/Bbl.)**
	Día	Mes	Año	Día	Mes	Año		
<b>BUNKER</b>	<b>334.6</b>	<b>6,681.9</b>	<b>61,432.2</b>	<b>636.2</b>	<b>6,497.0</b>	<b>59,744.5</b>	<b>9,104.0</b>	<b>42.7</b>
CEN	54.5	1,110.4	9,634.4	116.7	830.9	9,092.6	758.2	43.3
EEC								49.7
EEC20	82.9	1,352.5	11,582.8	0.0	0.0	9,200.6	1,586.9	49.7
GSR	0.0	0.0	0.0	0.0	0.0	0.0	64.6	49.8
PCG1	2.0	42.1	484.5	0.0	0.0	386.0	192.2	42.7
PCG2	0.0	11.0	335.9	0.0	17.5	322.3	233.8	51.6
PCG3	1.6	35.4	535.5	5.8	46.6	557.5	418.0	51.4
PCG4	0.0	3.2	194.9					51.6
PCG5	0.0	2.3	116.1	0.0	0.0	316.0	234.0	51.6
PCG6	7.4	149.7	1,426.0					50.3
PCG7	17.0	447.4	4,009.8	58.3	581.7	5,119.4	186.0	50.3
PCG8	3.8	174.2	1,142.5	0.0	131.0	1,134.9	364.8	49.1
PCG9	13.2	344.4	2,911.2	291.3	587.9	3,032.1	205.7	50.2
<b>PCG</b>	<b>45.0</b>	<b>1,209.9</b>	<b>11,156.3</b>	<b>355.4</b>	<b>1,364.7</b>	<b>10,868.2</b>	<b>1,834.4</b>	<b>49.9</b>
PMG3	0.0	0.0	0.0	0.0	93.1	93.1		48.1
PMG4	1.0	30.3	292.6	0.0	0.0	209.7	264.2	49.0
PMG5	1.0	30.7	315.3	0.0	0.0	0.0		49.0
<b>PMG</b>	<b>2.0</b>	<b>61.0</b>	<b>607.9</b>	<b>0.0</b>	<b>93.1</b>	<b>302.8</b>	<b>264.2</b>	<b>48.7</b>
PNI1	49.1	967.1	8,156.2					49.6
PNI2	0.0	0.0	2,384.8	64.0	936.2	11,027.6	239.8	49.6
<b>PNI</b>	<b>49.1</b>	<b>967.1</b>	<b>10,541.0</b>	<b>64.0</b>	<b>936.2</b>	<b>11,027.6</b>	<b>239.8</b>	<b>49.6</b>
TPC	63.3	1,173.7	10,940.6	0.0	1,736.2	13,015.2	1,764.1	42.7
PMN	37.8	807.4	6,969.3	100.1	1,536.0	6,237.4	2,591.8	42.7
<b>DIESEL</b>	<b>6.5</b>	<b>143.9</b>	<b>1,825.5</b>	<b>14.8</b>	<b>126.2</b>	<b>1,386.8</b>	<b>594.4</b>	<b>54.9</b>
PCG1	1.2	9.6	111.8	7.4	14.8	74.1	39.5	54.9
PCG2	0.0	4.1	77.5	0.0	0.0	59.3	22.4	54.9
PCG3	0.8	10.3	105.2	0.0	7.5	67.0	7.3	54.9
PCG4	0.0	2.4	64.0					54.9
PCG5	0.0	1.4	29.2	0.0	0.0	66.6	24.5	54.9
PCG6	0.1	7.7	111.7					54.9
PCG7	1.8	25.8	236.3	0.0	29.7	326.7	30.7	54.9
PCG8	0.8	16.2	175.2	0.0	14.8	133.4	24.0	54.9
PCG9	1.5	29.1	244.6	7.4	29.7	274.0	37.7	54.9
<b>PCG</b>	<b>6.2</b>	<b>106.5</b>	<b>1,155.4</b>	<b>14.8</b>	<b>96.5</b>	<b>1,001.2</b>	<b>186.2</b>	<b>54.9</b>
PHC2	0.1	18.8	193.7	0.0	0.0	118.5	119.3	54.9
PHC1	0.0	1.5	11.6					54.9
<b>PHC</b>	<b>0.1</b>	<b>20.3</b>	<b>205.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>193.2</b>	<b>54.9</b>
PLB1	0.0	0.0	0.0					54.9
PLB2	0.0	0.0	0.0					54.9
<b>PLB</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>193.2</b>	<b>54.9</b>
PMG4	0.0	0.0	0.0	0.0	0.0	0.0	3.8	54.9
<b>PMG</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>3.8</b>	<b>54.9</b>
PMN	0.2	17.0	464.8	0.0	29.7	267.1	91.9	54.9

\* El Consumo totaliza el consumo por Generación y Calentamiento.

\*\* El Precio incluye el Cargo de Transporte.

Información de Despejes del 21/07/2017			
Agente	Lugar de Trabajo	Desde	Hasta
ENATREL	Línea (Bahía) LBS 138 L823	20/07/2017 08:00	21/07/2017 16:00
ENATREL	Línea (Bahía) SND 230 L912	20/07/2017 08:00	21/07/2017 16:00
EEC20	Unidad Generadora (Termoeléctrica) PEC 13.8 U1	20/07/2017 22:05	21/07/2017 02:00
ENATREL	Capacitor (Bahía) PTZ 13.8 C301	21/07/2017 09:00	21/07/2017 16:00

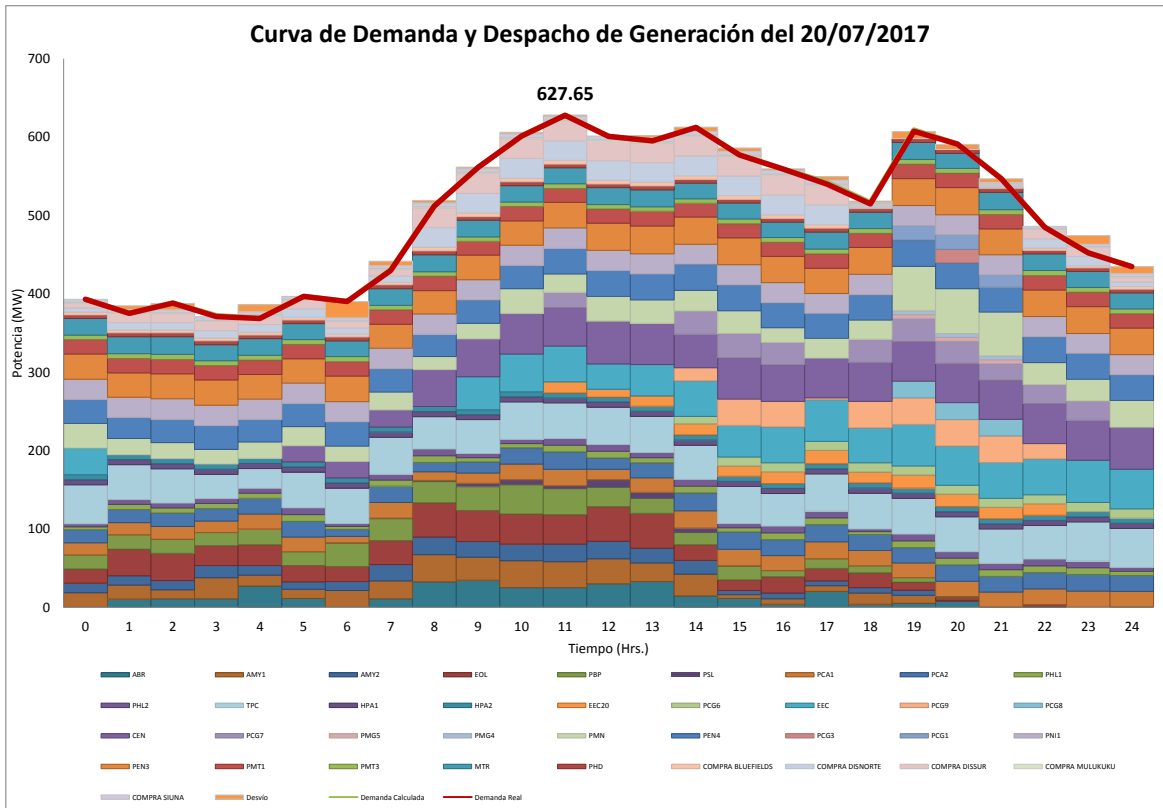
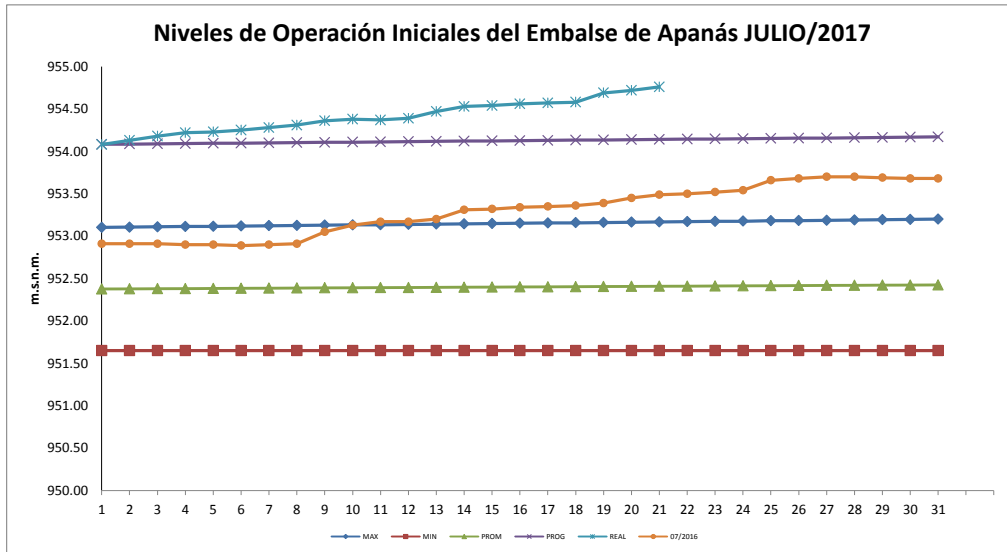
**Centro Nacional de Despacho de Carga (CNDC)**  
**Informe de Operación del SIN (Sistema Interconectado Nacional)**  
**Fecha: 20/07/2017**

<b>Balance Hidrológico</b>							
<b>20/07/2017</b>							
<b>Embalse</b>	<b>APANAS</b>	<b>ASTURIAS</b>	<b>LA VIRGEN</b>	<b>PANTASMA</b>	<b>LARREYNAGA</b>	<b>UNIDAD</b>	
Generación Programada	965.810	N/A	0.000	261.120	319.160	MWh	
Generación Real	907.950		0.000	309.420	342.820	MWh	
Consumo de Agua	1.510	0.160	0.000	0.330	1.600	MMC	
Nivel Programado	954.138	N/A					m.s.n.m
Nivel Inicial	954.720	927.220	439.840	844.610	682.210	m.s.n.m	
Volumen Inicial	349.460	5.940	23.850	1.320	0.140	MMC	
Aporte Natural	3.330	0.540	0.000	0.650	1.580	MMC	
Extracción	0.000	0.000	-1.090	0.000	0.000	MMC	
Aporte Bombeo	0.160	N/A					MMC
Aporte Total	3.490	0.540	0.410	0.650	1.580	MMC	
Nivel Final	954.760	927.380	439.850	844.530	681.760	m.s.n.m	
Volumen Final	351.280	6.320	23.920	1.290	0.120	MMC	
Derrame	0.000	0.000	0.340	0.350	0.000	MMC	
<b>jul-17</b>							
Generación Programada	18,319.640	N/A	0.000	5,020.300	6,082.160	MWh	
Generación Real	16,522.670		0.000	6,003.060	6,170.600	MWh	
Consumo de Agua	27.430	3.630	0.000	6.420	27.380	MMC	
Aporte Natural	67.710	8.580	0.000	8.730	27.400	MMC	
Extracción	0.000	0.000	-19.280	0.000	0.000	MMC	
Aporte Bombeo	3.630	N/A					MMC
Aporte Total	71.340	8.580	8.150	8.730	27.400	MMC	
Derrame	0.240	0.000	8.640	1.240	0.040	MMC	
<b>2017</b>							
Generación Programada	160,463.740	N/A	0.000	20,656.020	52,430.020	MWh	
Generación Real	142,872.800		0.000	27,409.460	53,027.580	MWh	
Consumo de Agua	235.910	28.180	0.000	29.310	244.810	MMC	
Aporte Natural	200.790	27.800	0.000	33.150	246.110	MMC	
Extracción	-9.570	-0.010	-163.470	-1.610	-0.060	MMC	
Aporte Bombeo	28.180	N/A					MMC
Aporte Total	219.410	27.790	72.440	31.540	246.050	MMC	
Derrame	0.240	0.000	73.070	1.240	1.370	MMC	

\*MMC = Millones de Metros Cúbico = 1,000,000 m3

N/A (No Aplica)

<b>Niveles de Operación Iniciales de APANAS (m.s.n.m)</b>						
<b>07/2017</b>						<b>07/2016</b>
<b>Día</b>	<b>MAX</b>	<b>MIN</b>	<b>PROM</b>	<b>PROG</b>	<b>REAL</b>	<b>HISTORICO</b>
1	953.103	951.650	952.377	954.083	954.080	952.910
2	953.106	951.650	952.378	954.086	954.130	952.910
3	953.110	951.650	952.380	954.089	954.180	952.910
4	953.113	951.650	952.381	954.092	954.220	952.900
5	953.116	951.650	952.383	954.095	954.230	952.900
6	953.119	951.650	952.385	954.097	954.250	952.890
7	953.123	951.650	952.386	954.100	954.280	952.900
8	953.126	951.650	952.388	954.103	954.310	952.910
9	953.129	951.650	952.390	954.106	954.360	953.050
10	953.132	951.650	952.391	954.109	954.380	953.130
11	953.135	951.650	952.393	954.112	954.370	953.170
12	953.139	951.650	952.394	954.115	954.390	953.170
13	953.142	951.650	952.396	954.118	954.470	953.200
14	953.145	951.650	952.398	954.121	954.530	953.310
15	953.148	951.650	952.399	954.124	954.540	953.320
16	953.152	951.650	952.401	954.126	954.560	953.340
17	953.155	951.650	952.402	954.129	954.570	953.350
18	953.158	951.650	952.404	954.132	954.580	953.360
19	953.161	951.650	952.406	954.135	954.690	953.390
20	953.165	951.650	952.407	954.138	954.720	953.450
21	953.168	951.650	952.409	954.141	954.760	953.490
22	953.171	951.650	952.410	954.144		953.500
23	953.174	951.650	952.412	954.147		953.520
24	953.177	951.650	952.414	954.150		953.540
25	953.181	951.650	952.415	954.153		953.660
26	953.184	951.650	952.417	954.155		953.680
27	953.187	951.650	952.419	954.158		953.700
28	953.190	951.650	952.420	954.161		953.700
29	953.194	951.650	952.422	954.164		953.690
30	953.197	951.650	952.423	954.167		953.680
31	953.200	951.650	952.425	954.170		953.680



Hora	Notas
11:00	Demanda Máxima 627.65 MW.