

INSTITUTO NICARAGÜENSE DE ENERGIA
ENTE REGULADOR

RESUMEN DE LOS PRINCIPALES INDICADORES DEL SUBSECTOR ELECTRICIDAD
SISTEMA INTERCONECTADO NACIONAL (S.I.N.) Y SISTEMAS AISLADOS
AÑO 2006

Concepto / Meses	Unidad de Medida	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC	TOTAL	
Capacidad Instalada Nominal	MW	772.55	773.59	773.39	773.34	773.58	767.58	767.61	767.61	767.84	767.91	767.99	768.05	768.05	
Capacidad Instalada Efectiva		684.83	621.81	629.60	647.25	607.00	571.19	517.25	513.76	531.23	521.21	602.73	565.81	565.81	
1 Generación Bruta (SIN + Aislados) (3+...+10)	MWh	274,648.33	250,693.30	288,290.49	273,217.65	274,773.14	247,515.22	252,150.57	250,095.57	241,642.90	249,034.28	252,742.72	282,639.17	3137,443.34	
2 Generación Bruta SIN (3+...+9)		271,626.11	247,849.45	284,834.79	269,709.74	271,027.86	244,088.90	248,518.49	246,262.51	238,037.51	245,215.59	249,157.25	278,860.54	3095,188.74	
3 Hidroeléctricas (Públicas)		34,227.30	29,292.40	28,666.30	35,056.80	32,322.30	9,797.60	17,745.40	22,306.80	29,730.20	28,195.20	20,754.20	19,517.20	307,611.70	
4 Térmicas (Públicas) - Fuel Oil		18,880.99	8,521.07	18,400.16	17,817.75	12,577.51	24,500.61	18,619.53	20,692.48	23,970.66	19,146.17	12,512.83	3,296.83	198,936.59	
5 Térmicas (Privadas) - Fuel Oil		135,069.52	133,480.14	149,060.75	137,862.27	175,960.80	162,578.39	177,125.09	172,256.79	155,702.90	164,484.64	161,079.55	157,909.54	1882,570.39	
6 Térmicas (Privadas) - Bagazo de Caña		57,560.91	53,469.99	62,358.26	47,906.96	12,932.83	8,808.74	0.00	0.00	0.00	0.00	18,761.21	60,979.19	322,778.11	
7 Turbinas a Gas (Pública) - Diesel		1,041.00	355.68	61.92	4,991.80	9,609.36	13,159.00	9,086.40	4,165.20	4,384.80	6,135.12	10,131.12	8,354.88	71,476.28	
8 Turbinas a Gas (Privada) - Diesel		355.12	0.00	396.53	0.00	8.90	0.00	0.00	0.00	0.00	4.84	57.34	0.00	822.73	
9 Geotérmicas		24,491.27	22,730.16	25,890.87	26,074.15	27,616.16	25,244.55	25,942.07	26,841.24	24,248.95	27,249.62	25,861.00	28,802.90	310,992.95	
10 Sistemas Aislados		3,022.21	2,843.85	3,455.70	3,507.91	3,745.28	3,426.32	3,632.07	3,833.06	3,605.39	3,818.69	3,585.47	3,778.63	42,254.60	
11 Consumo Propio (SIN + Aislados) (13+...+20)	MWh	33,958.57	30,024.23	36,009.82	30,403.80	15,173.73	14,400.54	13,046.01	13,104.99	12,485.48	12,977.96	21,310.76	34,937.60	267,833.47	
12 Consumo Propio SIN (13+...+19)		33,864.11	29,934.76	35,898.09	30,291.51	15,056.03	14,284.82	12,974.12	12,363.04	12,849.90	12,849.90	21,208.54	34,830.87	266,480.71	
13 Hidroeléctricas (Públicas)		886.62	142.31	112.65	179.89	351.43	468.26	1,241.10	986.71	1,027.45	992.59	971.31	997.25	8,357.57	
14 Térmicas (Públicas) - Fuel Oil		1,656.90	750.75	1,681.97	1,714.94	1,148.01	2,252.23	1,836.70	1,924.88	2,439.06	2,025.82	1,355.36	126.63	18,913.25	
15 Térmicas (Privadas) - Fuel Oil		5,672.04	5,259.32	5,926.81	4,806.36	7,196.32	6,138.19	6,892.54	6,750.04	5,754.22	6,287.19	6,429.79	6,485.24	73,598.06	
16 Térmicas (Privadas) - Bagazo de Caña		23,022.72	21,449.55	25,570.56	20,721.32	3,497.65	1,905.09	0.00	0.00	0.00	0.00	8,846.79	23,409.75	128,423.43	
17 Turbinas a Gas (Pública) - Diesel		58.32	25.33	5.88	166.92	0.00	710.31	47.07	274.90	272.55	375.11	545.05	3,167.62	3,167.62	
18 Turbinas a Gas (Privada) - Diesel		1.44	0.00	1.62	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.14	
19 Geotérmicas		2,566.67	2,307.49	2,598.60	2,702.09	2,862.54	2,810.73	2,906.94	3,037.59	2,869.76	3,169.19	2,919.08	3,266.95	34,017.64	
20 Sistemas Aislados		93.86	89.48	111.72	112.29	117.71	115.72	121.66	130.87	122.44	128.07	102.22	106.73	1,352.76	
21 Generación Neta (SIN + Aislados) (23+30)	MWh	240,689.76	220,669.07	252,280.68	242,813.85	259,599.41	233,114.68	239,104.56	236,990.59	229,157.42	236,056.32	231,431.97	247,701.57	2869,609.87	
22 Generación Neta SIN (23+...+29)		237,864.11	217,914.69	248,936.70	239,418.23	255,971.83	229,804.08	235,594.14	233,288.39	225,674.47	232,865.90	227,948.71	244,029.67	2828,708.03	
23 Hidroeléctricas (Públicas)		33,340.68	29,150.09	28,553.65	34,876.91	31,970.87	9,329.34	16,504.30	21,320.09	28,702.75	27,202.61	19,782.89	18,519.95	299,254.13	
24 Térmicas (Públicas) - Fuel Oil		17,224.09	7,770.32	16,718.19	16,102.81	11,429.50	22,248.38	16,782.83	18,767.60	21,531.60	17,120.35	11,157.47	3,170.20	180,023.34	
25 Térmicas (Privadas) - Fuel Oil		129,397.48	128,220.82	143,133.94	133,055.92	168,174.47	156,440.20	170,232.56	165,506.75	149,948.68	158,197.45	154,649.76	151,424.30	1808,972.33	
26 Térmicas (Privadas) - Bagazo de Caña		34,538.20	32,020.44	36,787.70	27,185.65	9,435.18	6,903.65	0.00	0.00	0.00	0.00	9,914.42	37,569.45	194,354.68	
27 Turbinas a Gas (Pública) - Diesel		982.68	330.35	56.04	4,824.88	9,609.36	12,448.69	9,039.33	3,890.30	4,112.25	5,760.02	9,444.92	7,809.83	68,308.66	
28 Turbinas a Gas (Privada) - Diesel		353.67	0.00	394.91	0.00	8.83	0.00	0.00	0.00	0.00	4.84	57.34	0.00	819.59	
29 Geotérmicas		21,924.60	20,422.67	23,292.28	23,372.06	24,753.62	22,433.82	23,035.13	23,803.65	21,379.19	24,080.43	22,941.92	25,535.95	276,975.31	
30 Sistemas Aislados		2,928.35	2,754.38	3,343.98	3,395.62	3,627.57	3,310.60	3,510.42	3,702.19	3,482.95	3,690.62	3,483.26	3,671.90	40,901.84	
31 Oferta Total (32 + 33)	MWh	241,100.05	220,659.80	253,902.73	246,946.55	261,097.67	236,313.19	245,656.87	245,799.54	232,020.31	242,953.09	241,597.00	253,716.86	2921,763.65	
32 Oferta Disponible (SIN) (22+34+35)		238,171.70	217,905.42	250,558.75	243,550.93	257,470.09	233,002.59	242,146.45	242,097.34	228,537.36	239,262.47	238,113.75	250,044.96	2880,861.81	
33 Oferta Disponible (Sistemas Aislados) (30)		2,928.35	2,754.38	3,343.98	3,395.62	3,627.57	3,310.60	3,510.42	3,702.19	3,482.95	3,690.62	3,483.26	3,671.90	40,901.84	
34 Neto Interconexión		-112.51	-9.27	-288.75	-21.79	-106.56	-235.22	-20.24	-103.93	-8.66	257.37	-295.69	-220.13	-1,165.37	
35 Importaciones de Energía		522.80	0.00	1,910.81	4,154.48	1,604.82	3,433.73	6,572.54	8,912.88	2,871.55	6,639.41	10,460.73	6,235.42	53,319.16	
36 Pérdidas de Transmisión y Distribución (SIN) (32-41-43)		69,468.72	61,205.98	75,892.78	69,545.64	75,742.31	62,911.08	67,733.11	70,981.48	63,118.09	68,149.57	67,866.74	76,810.88	829,426.38	
37 Pérdidas de Distribución (Sist Aisl.) (33-42)		1,001.33	967.18	1,398.83	1,285.43	1,327.69	1,151.22	1,199.63	1,428.40	1,159.55	1,390.48	1,104.40	1,423.32	14,837.46	
38 Pérdidas de Transmisión y Distribución (SIN)		29.17	28.09	30.29	28.55	29.42	27.00	27.97	29.32	27.62	28.48	28.50	30.72	28.79	
39 Pérdidas de Distribución (Sist.Aisl.)		34.19	35.11	41.83	37.86	36.60	34.77	34.17	38.58	33.29	37.68	31.71	38.76	36.28	
40 Ventas de Energía Eléctrica (41+42+43)		MWh	170,630.01	158,486.63	176,611.12	176,115.48	184,027.66	172,250.89	176,724.13	173,389.66	167,742.67	173,413.04	172,625.86	175,482.65	2077,499.81
41 S.I.N. (DN+DS+Bflds+Wiwilf+Atder-BL+Gran Consumidor)	168,702.99		156,699.43	174,593.62	174,005.28	181,727.78	170,091.51	174,413.34	171,115.87	165,419.27	171,112.90	170,247.01	173,234.08	2051,363.08	
42 Sistemas Aislados (Públicos + Privados)	1,927.02		1,787.20	1,945.15	2,110.19	2,299.88	2,159.38	2,310.78	2,273.80	2,323.40	2,300.14	2,378.85	2,248.57	26,064.37	
43 Exportaciones de Energía	0.00		0.00	72.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72.35	
44 Clientes (45+46)	Usuarios		601,212	613,115	614,750	617,113	616,836	620,053	621,869	624,614	618,520	616,926	617,447	623,859	617,193
45 S.I.N. (DN+DS+Bflds+Wiwilf+Atder-BL+G. C.+Uso Redes)			585,000	596,849	594,287	599,899	599,746	602,779	604,555	607,318	601,186	599,624	600,285	606,642	599,848
46 Sistemas Aislados (Públicos + Privados)	16,212		16,266	20,463	17,214	17,090	17,274	17,314	17,296	17,334	17,302	17,162	17,217	17,345	
47 Ingresos por Ventas (48+49)	10 ³ de C\$		388,371.02	373,278.15	414,183.86	427,880.36	454,165.86	441,978.23	452,438.85	460,151.74	451,489.45	468,792.11	472,510.95	475,363.60	5280,604.18
48 S.I.N. (DN+DS+Bflds+Wiwilf+Atder-BL+Uso Redes)			381,850.14	367,154.86	407,383.53	420,385.21	445,839.81	434,113.00	444,336.57	451,796.93	443,199.46	460,649.03	464,179.56	467,329.46	5188,217.56
49 Sistemas Aislados (Públicos + Privados)			6,520.88	6,123.29	6,800.33	7,495.15	8,326.05	7,865.23	8,102.28	8,354.81	8,289.99	8,143.09	8,331.39	8,034.13	92,386.62
50 Precio Promedio	C\$ / kWh	2.4765	2.5471	2.5583	2.6425	2.7162	2.7761	2.7650	2.8624	2.8732	2.8683	2.8871	2.8698	2.7399	
51 S.I.N. (DN+DS+Bflds+Wiwilf+Atder-BL)		2.4693	2.5366	2.5495	2.6333	2.7072	2.7824	2.7743	2.8799	2.9077	2.9014	2.9209	2.9112	2.7483	
52 Sistemas Aislados (Públicos + Privados)		3.0516	3.1247	3.1547	3.1804	3.2466	3.2864	3.1681	3.3289	3.2943	3.2447	3.2237	3.2651	3.2187	

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Concepto / Meses	Unidad de Medida	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC	TOTAL
53 Consumo Combustible														
54 Hidroeléctricas	10 ³ M ³ Agua	61,899.78	52,775.92	51,520.53	63,126.60	59,196.21	18,245.70	31,828.82	40,304.36	54,584.45	51,924.09	38,215.51	35,305.67	558,927.64
55 Térmicas - Fuel Oil (Públicas)		1,544.78	722.18	1,545.43	1,469.45	927.90	1,976.65	1,506.00	1,687.59	2,054.13	1,594.15	1,053.85	200.96	16,283.07
56 Térmicas - Fuel Oil (Privadas)	10 ³ Glns.	8,360.94	8,479.63	9,496.95	8,536.25	11,218.15	10,428.69	11,401.75	11,065.30	9,873.34	10,602.81	10,398.44	10,127.81	119,990.06
57 Turbinas a Gas (Pública) - Diesel Oil		103.70	27.01	4.93	378.17	384.15	1,007.88	650.97	300.89	312.93	436.22	715.31	587.49	4,909.66
58 Turbinas a Gas (Privada) - Diesel Oil		47.00	0.00	53.02	0.00	1.74	0.00	0.00	0.00	0.00	1.20	7.72	0.00	110.68
59 Geotérmicas		10 ³ Ton. Vapor	169.59	159.38	182.96	187.88	235.02	218.05	221.21	233.59	217.48	236.64	227.31	243.50
60 Geotérmica	10 ³ M ³ Agua Caliente	742.22	706.00	822.39	803.69	830.94	797.46	795.74	788.44	737.61	768.06	698.33	748.68	9,239.55
61 Sistemas Aislados (Diesel Oil)	10 ³ Glns.	146.15	139.39	135.52	140.33	159.59	136.88	143.27	156.44	142.55	159.24	163.45	161.84	1,784.66
62 Sistemas Aislados (Fuel Oil)		94.20	87.46	128.69	129.19	123.33	125.58	128.32	139.35	122.06	135.34	116.69	126.21	1,456.43
63 Sistemas Aislados (Agua)	10 ³ M ³ Agua	128.20	126.05	111.68	91.81	92.59	131.02	139.61	143.40	139.47	147.75	4.97	47.70	1,304.24
64 Diesel Oil p/Generación y Calentamiento (Otros Usos)	10 ³ Glns.	4.17	3.50	8.57	4.52	3.19	5.34	4.38	38.13	12.60	5.14	3.25	9.79	102.58
65 Residuos Vegetales														
66 Leña	Ton. Métricas	0.00	0.00	0.00	0.00	9,536.10	12,210.32	0.00	0.00	0.00	0.00	5,300.74	0.00	27,047.16
67 Bagazo de Caña		189,327.09	162,914.29	189,721.51	144,611.59	13,222.00		0.00	0.00	0.00	0.00	63,785.12	187,359.72	950,941.32
68 Cascarrilla de Arroz														0.00
69 Rendimientos														
70 Hidroeléctricas (3/54)	kWh / M ³	0.55	0.56	0.56	0.56	0.55	0.54	0.56	0.55	0.54	0.54	0.54	0.55	0.55
71 Térmicas (Públicas) (4/55)	kWh / Glns.	12.22	11.80	11.91	12.13	13.55	12.39	12.36	12.26	11.67	12.01	11.87	16.41	12.22
72 Térmicas (Privadas) (5/56)		16.15	15.74	15.70	16.15	15.69	15.59	15.53	15.57	15.77	15.51	15.49	15.59	15.69
73 Turbinas a Gas (Pública) (7/57)		10.04	13.17	12.56	13.20	25.01	13.06	13.96	13.84	14.01	14.06	14.16	14.22	14.56
74 Turbinas a Gas (Privada) (8/58)		7.56	0.00	7.48	0.00	5.12	0.00	0.00	0.00	0.00	4.02	7.43	0.00	7.43
75 Térmicas (Privadas) - Bagazo de Caña (6/67)	kWh/Ton.Bag.Caña	304.03	328.21	328.68	331.28	978.13	0.00	0.00	0.00	0.00	0.00	294.13	325.47	339.43
76 Geotérmicas	kWh/Ton. Vapor	117.89	115.77	114.27	112.86	96.08	93.61	95.47	94.45	90.94	95.48	95.15	99.65	100.68
77 Geotérmica	kWh/M ³ Agua Cal.	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06
78 Sistemas Aislados (Diesel Oil)	kWh / Glns.	13.14	13.41	14.43	14.42	15.72	14.59	14.63	14.03	14.60	14.55	14.64	14.97	14.48
79 Sistemas Aislados (Fuel Oil)		12.70	12.63	14.08	13.86	14.76	14.04	14.69	14.13	15.18	13.73	13.92	14.22	13.99
80 Sistemas Aislados (Agua)	kWh / M ³	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34
77 Demanda Máxima del SIN	MW	460.80	457.20	482.80	484.00	478.50	467.80	455.70	468.90	464.20	474.40	492.30	500.80	500.80
78 Hora	h.m	19:00:00	19:00:00	19:00:00	19:00:00	20:00:00	21:00:00	20:00:00	20:00:00	14:00:00	16:00:00	18:00:00	19:00:00	19:00:00
79 Fecha	d/m/a	18-Ene-06	23-Feb-06	30-Mar-06	24-Abr-06	02-May-06	30-Jun-06	25-Jul-06	02-Ago-06	11-Sep-06	26-Oct-06	14-Nov-06	13-Dic-06	13-Dic-06
80 Demanda Mínima del SIN	MW	219.10	230.30	222.80	227.20	227.30	191.30	225.90	214.80	202.00	158.70	201.90	236.20	158.70
81 Hora	h.m	07:00:00	07:00:00	07:00:00	06:00:00	03:00:00	13:00:00	03:00:00	01:00:00	03:00:00	14:00:00	02:00:00	07:00:00	14:00:00
82 Fecha	d/m/a	08-Ene-06	12-Feb-06	19-Mar-06	14-Abr-06	22-May-06	27-Jun-06	17-Jul-06	13-Ago-06	11-Sep-06	09-Oct-06	22-Nov-06	25-Dic-06	09-Oct-06
83 Factor de Carga del SIN	%	70.21	69.66	68.87	68.67	71.17	71.46	73.55	74.17	73.25	72.81	68.59	68.77	67.12
84 Nivel Inicial de Apanás	m.s.n.m	955.36	954.74	954.13	953.40	952.39	951.60	951.67	952.77	952.98	953.30	953.49	953.60	955.36
85 Nivel Final de Apanás		954.74	954.13	953.40	952.39	951.60	951.67	952.77	952.98	953.30	953.49	953.60	953.97	953.97
86 Aporte Total de Apanás	10 ³ M ³	13,251.49	4,465.93	2,180.51	596.91	3,957.44	10,811.89	59,261.71	31,670.60	41,428.45	34,054.41	23,965.64	35,671.53	261,316.51

Fuente: Centro Nacional Despacho de Carga, Empresas Privadas y Públicas del SIN y Sistemas Aislados.

Las Empresas Privadas incluyen: Censa, Tipitapa, Corinto, Nicaragua Sugar Estates Limited (NSEL), Ingenio Monte Rosa, Geosa (Ptas. Nicaragua y Chinandega), Ormat Momotombo Power Company y Puerto Cabezas Power como Generadores; como Distribuidores Disnorte, Dissur; Atder - BL, así como los Sistemas Aislados de Cipalsa, Aprodello y Rosita Electricidad, S.A.(RESA) (Generadores y Distribuidores).

Las Empresas Públicas incluyen Hidrogesa (Centroamérica y Santa Bárbara), Geosa (Managua y Las Brisas), y Sistemas Aislados a cargo de ENEL.

Las Ventas de Energía Eléctrica del SIN incluyen: Distribuidora de Electricidad del Norte (Disnorte), Distribuidora de Electricidad del Sur (Dissur), Bluefields, Wiwilí, Atder -BL y Grandes Consumidores.

Los Sistemas Aislados comprenden: las empresas a cargo de ENEL (ubicadas en la Raan, Raas, Centro); Unión Fenosa (Corozo (DN) e Isla de Ometepe (DS)); Puerto Cabezas Power, Aprodello y Rosita Electricidad, S.A. (RESA).

Dpto. Estadísticas - DAEFT, DGE - INE