



## **DATOS RELEVANTES DEL MERCADO ELÉCTRICO PANAMEÑO**

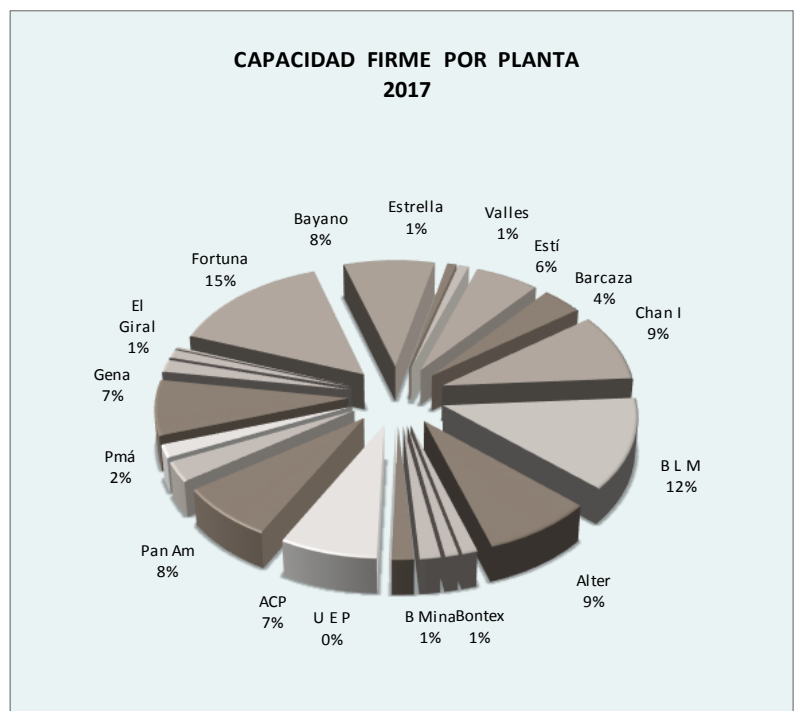
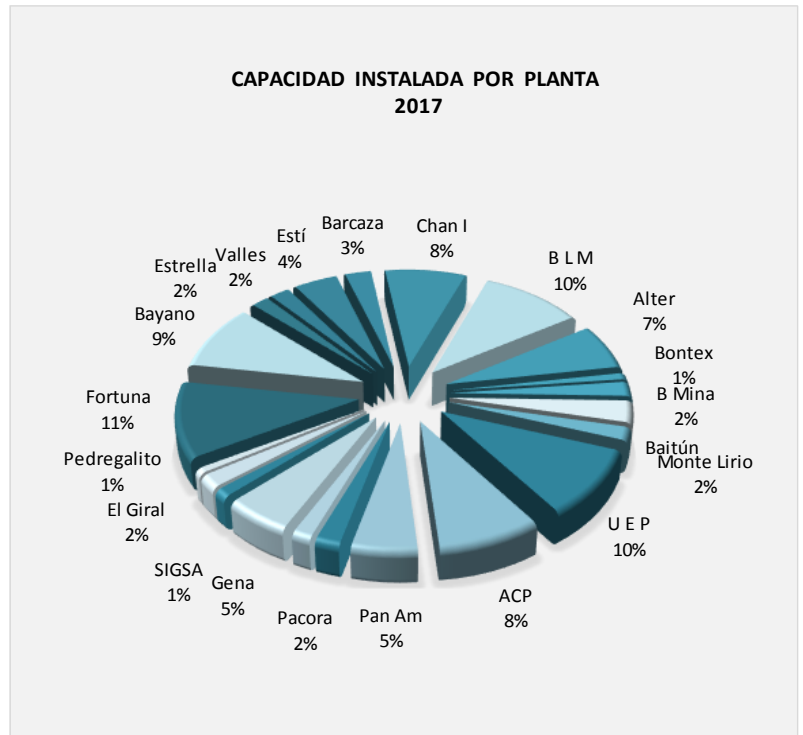
**ENERO DE 2017**

## CONTENIDO

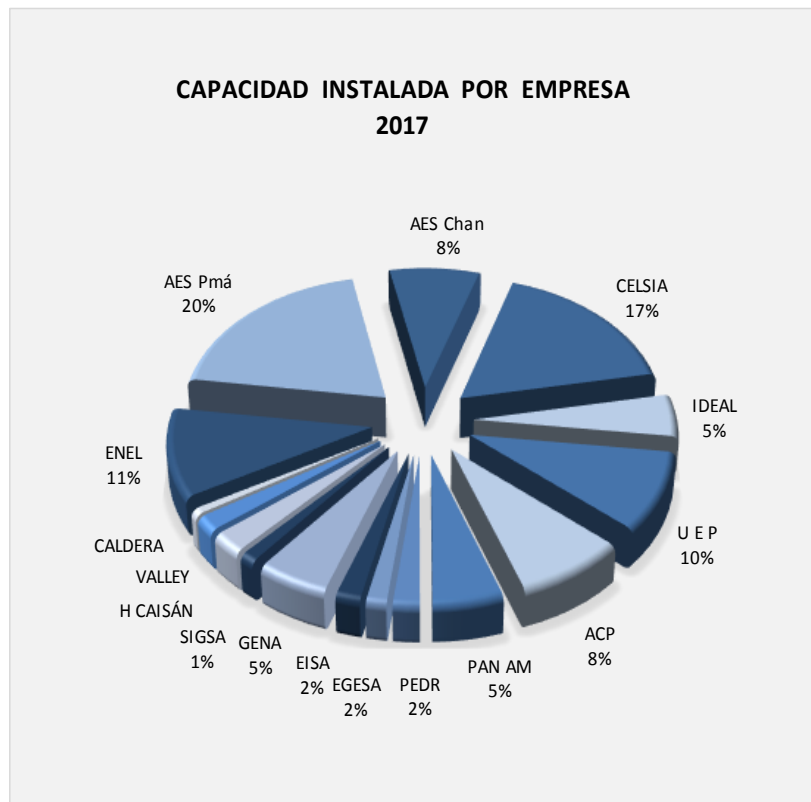
I.	CAPACIDAD INSTALADA Y CAPACIDAD FIRME POR AGENTE Y POR PLANTA	3
II.	CAPACIDAD FIRME CONTRATADA Y DISPONIBLE	7
III.	CAPACIDAD INSTALADA Y CAPACIDAD FIRME Y DEMANDA MÁXIMA MENSUAL	8
IV.	GENERACIÓN POR EMPRESA Y POR PLANTA	9
V.	CAPACIDAD INSTALADA POR TIPO DE TECNOLOGÍA	13
VI.	IMPORTACIONES Y EXPORTACIONES	14
VII.	COMPRA Y VENTA DE ENERGÍA EN EL MERCADO OCASIONAL	15
VIII.	COSTO MARGINAL DEL SISTEMA	17
IX.	DEMANDA MÁXIMA MENSUAL Y ANUAL	17
X.	COSTOS DE POTENCIA Y ENERGÍA CONTRATADA HIDRO Y TÉRMICA	18
XI.	CLIENTES, VENTAS E INGRESOS POR DISTRIBUIDORA	19

## I. CAPACIDAD INSTALADA Y CAPACIDAD FIRME POR AGENTE Y POR PLANTA

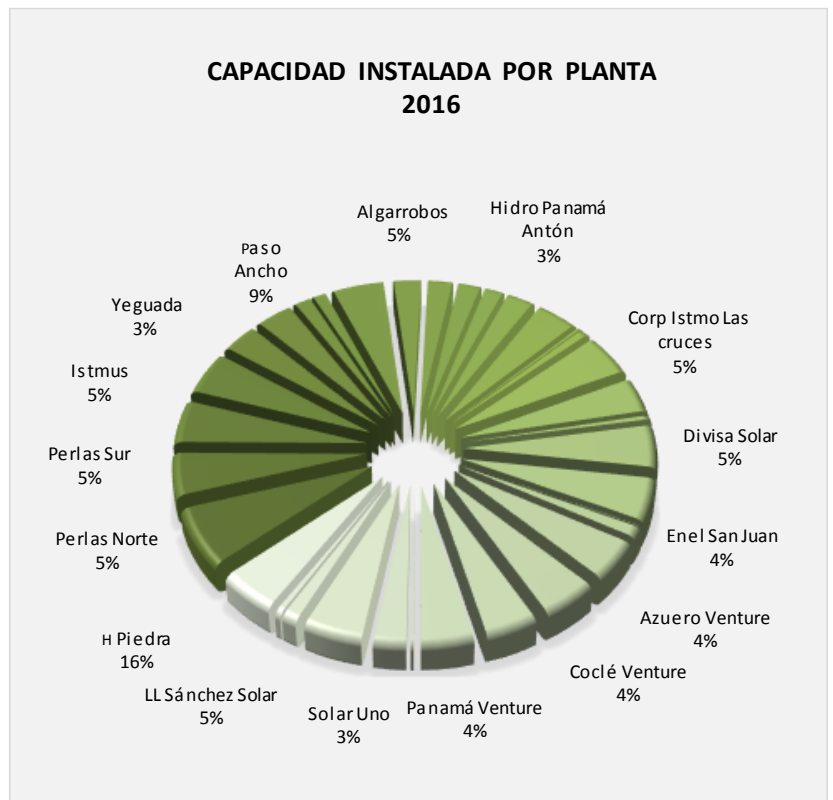
Empresa	Planta	Capacidad Instalada MW	Capacidad Firme MW
ENEL	Fortuna	300.00	284.00
AES Pmá	Bayano	260.00	160.12
AES Pmá	Estrella	47.20	16.13
AES Pmá	Valles	54.76	17.63
AES Pmá	Estí	120.00	112.67
AES Pmá	Barcaza	72.00	72.00
AES Chan	Chan I	222.17	175.33
CELSIA	B L M	280.00	240.50
CELSIA	Alter	179.42	164.21
CELSIA	Bontex	25.41	23.04
IDEAL	B Mina	56.80	20.07
IDEAL	Baitún	85.90	31.09
EISA	M Lirio	51.60	32.38
U E P	U E P	270.00	0.00
ACP	ACP	231.54	144.50
PAN AM	Pan Am	147.00	145.00
PEDR POWER	Pacora	55.35	53.00
EGESA	Pmá	42.80	34.00
GENA	Gena	150.00	144.50
SIGSA	SIGSA	32.18	32.00
VALLEY	El Giral	50.85	22.00
PEDRGLITO	Pedrego	20.00	5.25
R CHICO	Río Chico	10.00	3.22
H CAISÁN	El Alto	69.48	22.14
A VALLE	Alto valle	15.50	3.06
CALDERA	Mendre 1	19.75	3.90
FOUNTAIN	Bajo Frío	57.90	19.42
H ECO TERIBE	Bonyic	31.80	20.00
KANAN	Kanan	92.50	90.00
JINRO	Jinro	57.80	55.00
OTROS	Otros	213.49	37.48
<b>TOTAL</b>		<b>3,323.20</b>	<b>2,183.64</b>



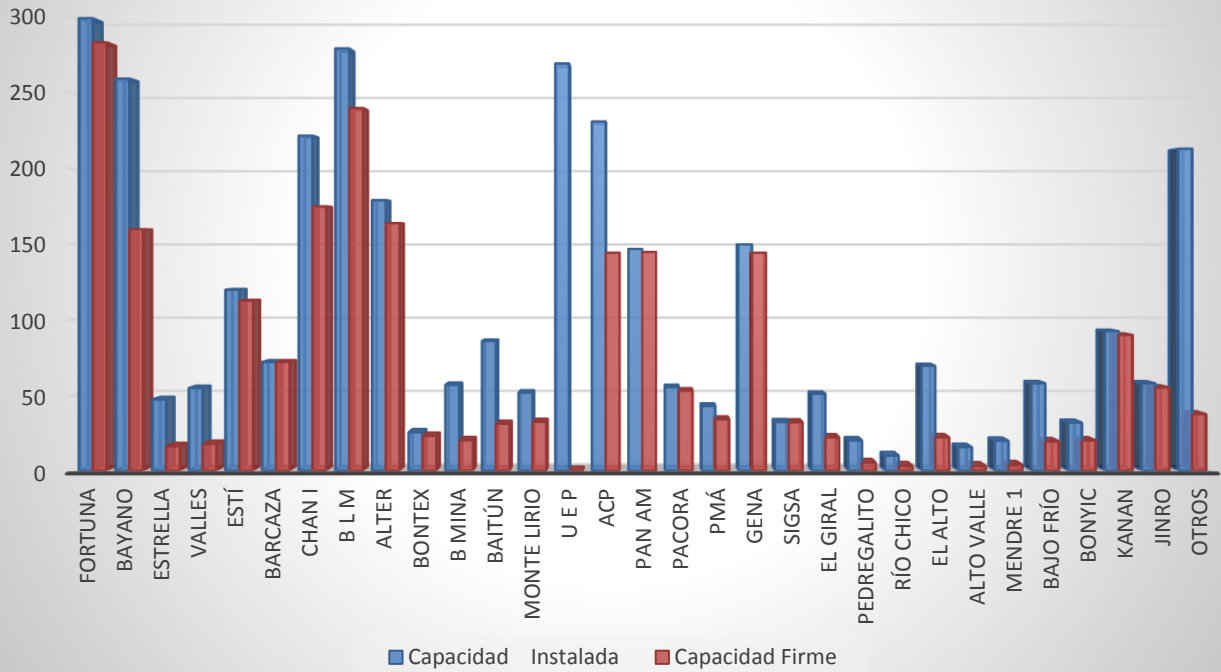
Empresa	Capacidad Instalada	Capacidad Firme
	MW	MW
ENEL	300.00	284.00
AES Pmá	553.96	378.55
AES Chan	222.17	175.33
CELSIA	484.76	427.75
IDEAL	142.70	51.16
U E P	270.00	0.00
ACP	231.54	144.50
PAN AM	147.00	145.00
PEDR	55.35	53.00
EGESA	42.80	34.00
EISA	51.60	32.38
GENA	150.00	144.50
SIGSA	32.18	32.00
H CAISÁN	69.48	22.14
VALLEY	50.85	22.00
CALDERA	19.75	3.90
PEDREGALITO	20.00	5.25
R CHICO	10.00	3.22
A VALLE	15.50	3.06
FOUNTAIN	57.90	19.42
H ECO TERIBE	31.80	20.00
KANAN	92.5	90.00
JINRO	57.87	55.00
OTROS	213.49	37.48
<b>TOTAL</b>	<b>3,323.20</b>	<b>2,183.64</b>



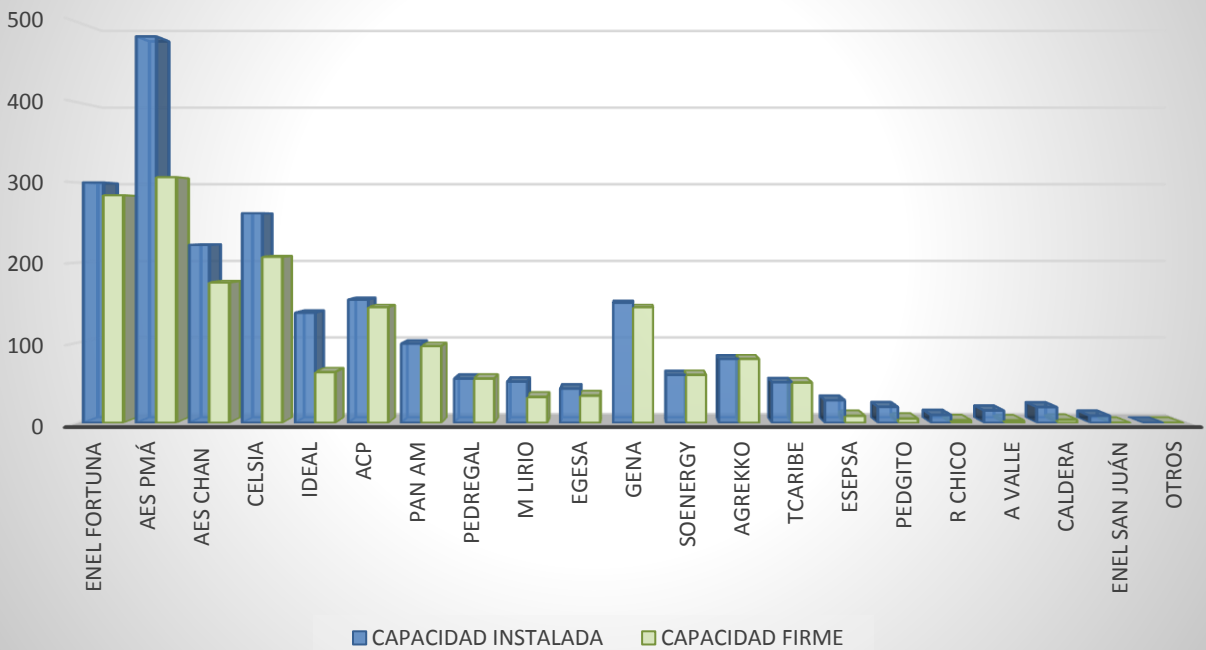
OTROS	Capacidad Instalada	Capacidad Firme
	MW	MW
H Piedra RP 490	14.00	3.00
Perlas Norte	10.00	2.46
Perlas Sur	10.00	2.46
Istmus	10.00	2.49
Paso Ancho	6.78	4.30
Yeguada	7.00	3.00
Dolega	3.12	1.10
Macho de Monte	2.50	0.80
Algarrobos	9.86	2.41
Hidro Ibérica El Fraile	5.30	5.00
Salto del Francolí	4.74	0.91
Hidro Panamá Antón	4.30	0.74
Hidro Boquerón Macano	3.50	0.90
Bugaba 1 Emnadesa	5.14	0.50
Mendre 2 Egeistmo	7.80	2.50
Hidro Candela Eleta	0.53	0.13
Grupo Melo	1.57	1.57
Corp Istmo Las cruces	9.70	3.21
San Lorenzo	8.12	2.00
Coclé Solar Azucarera	0.96	0.00
Divisa Solar	9.99	0.00
Farallón 2	9.96	0.00
G Solar Albrook	0.10	0.00
Sarigua Egesa	2.40	0.00
Enel San Juan	9.30	0.00
Azuero Venture	9.50	0.00
Coclé Venture	8.90	0.00
Panamá Venture	8.90	0.00
El Fraile Solar	0.48	0.00
Solar Uno	5.50	0.00
Solar Istmo	9.99	0.00
Solar Bugaba	2.56	0.00
Solar Canopo	1.00	0.00
LL Sánchez Solar	9.99	0.00
<b>TOTAL</b>	<b>213.49</b>	<b>37.48</b>



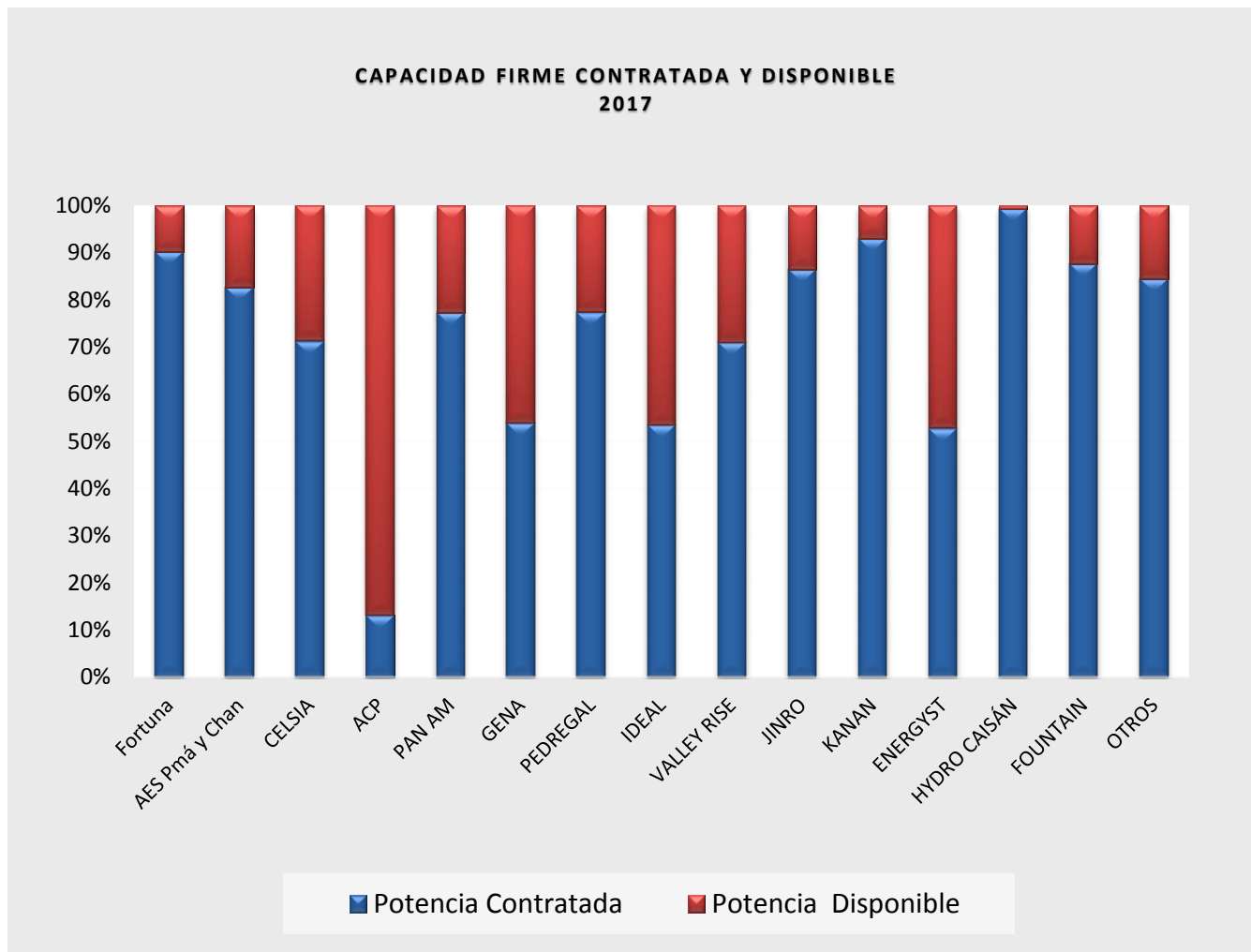
**CAPACIDAD INSTALADA Y CAPACIDAD FIRME POR PLANTA (MW)  
2017**



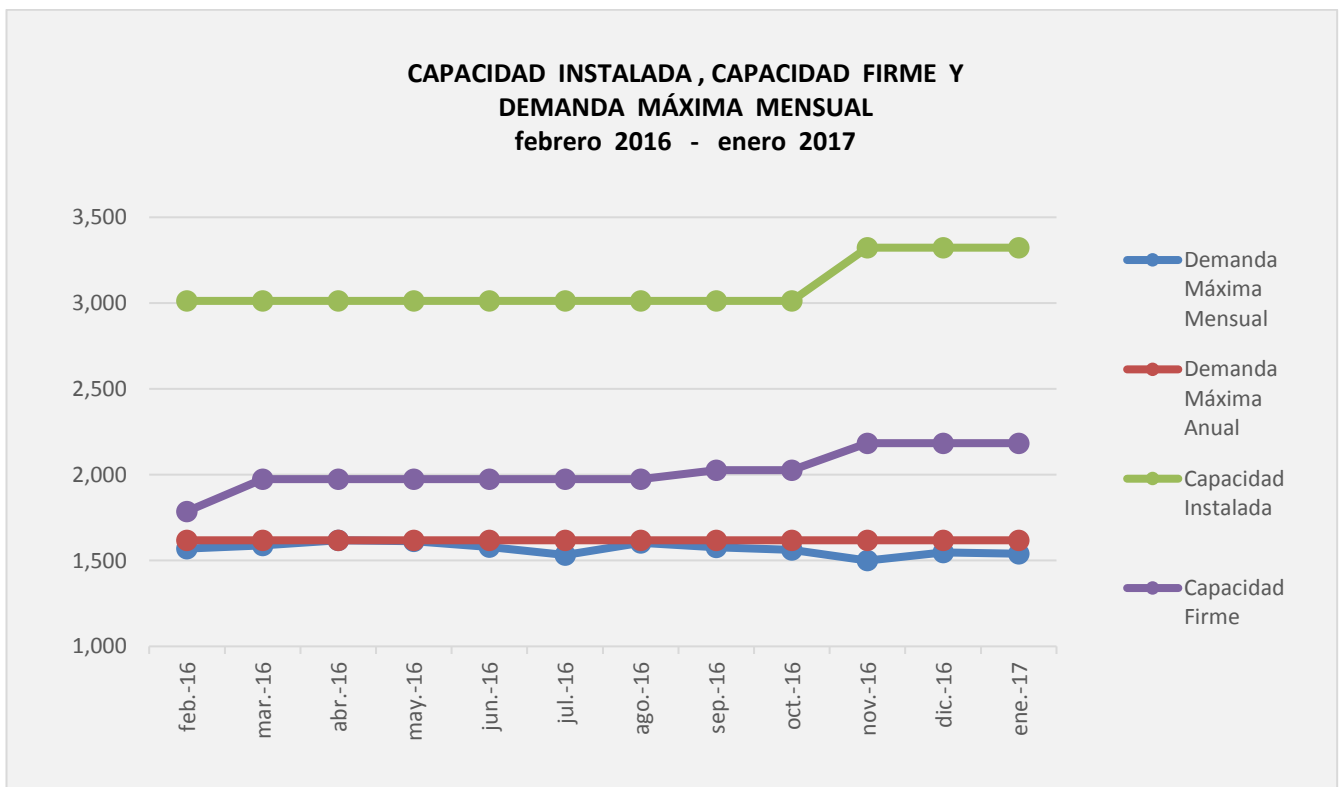
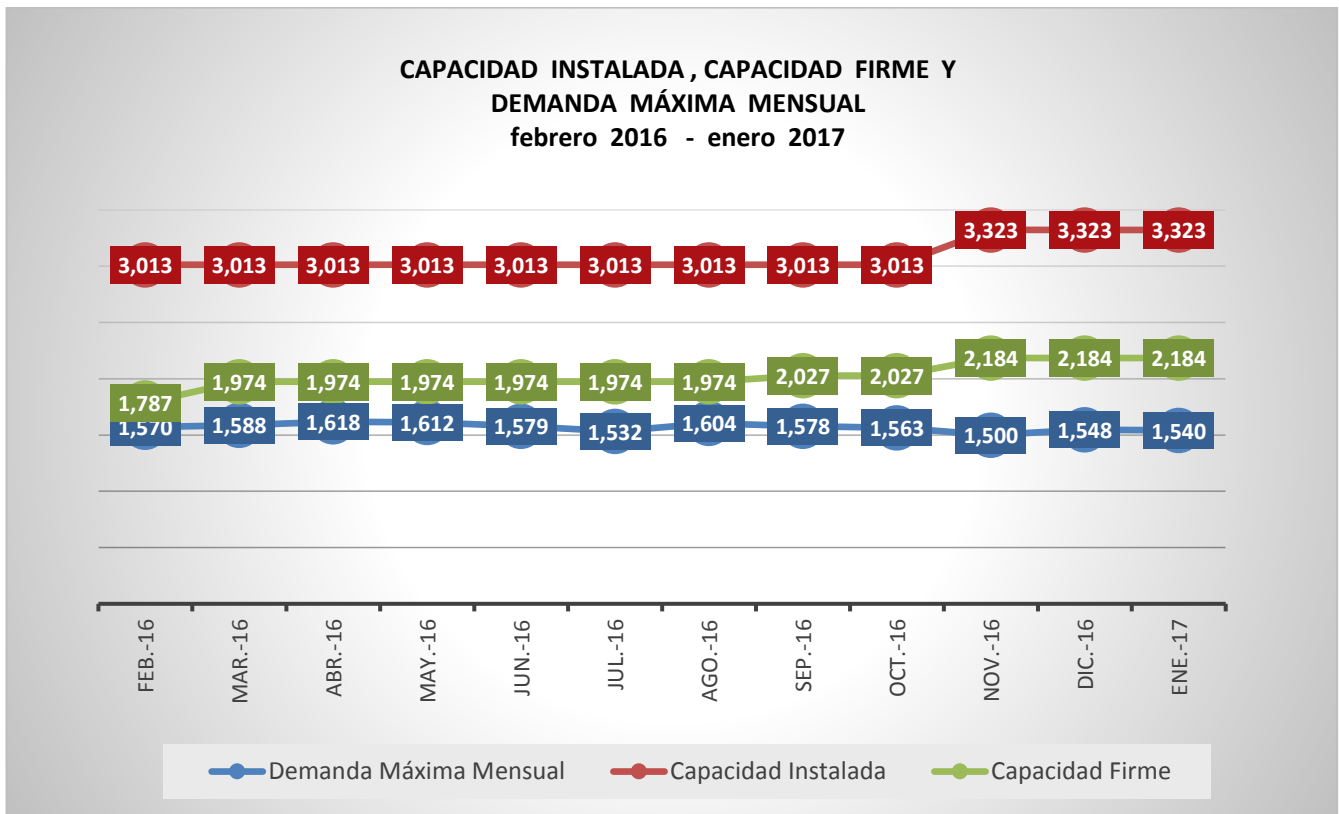
**CAPACIDAD INSTALADA Y CAPACIDAD FIRME POR EMPRESA (MW)  
2017**



## II. POTENCIA FIRME CONTRATADA Y POTENCIA DISPONIBLE



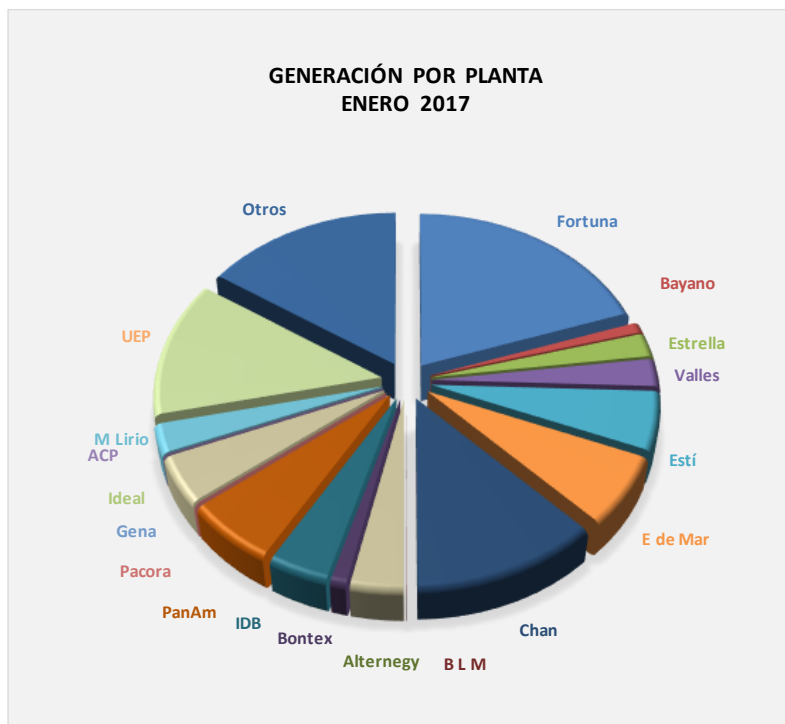
### III. CAPACIDAD INSTALADA Y FIRME VS DEMANDA MÁXIMA MENSUAL



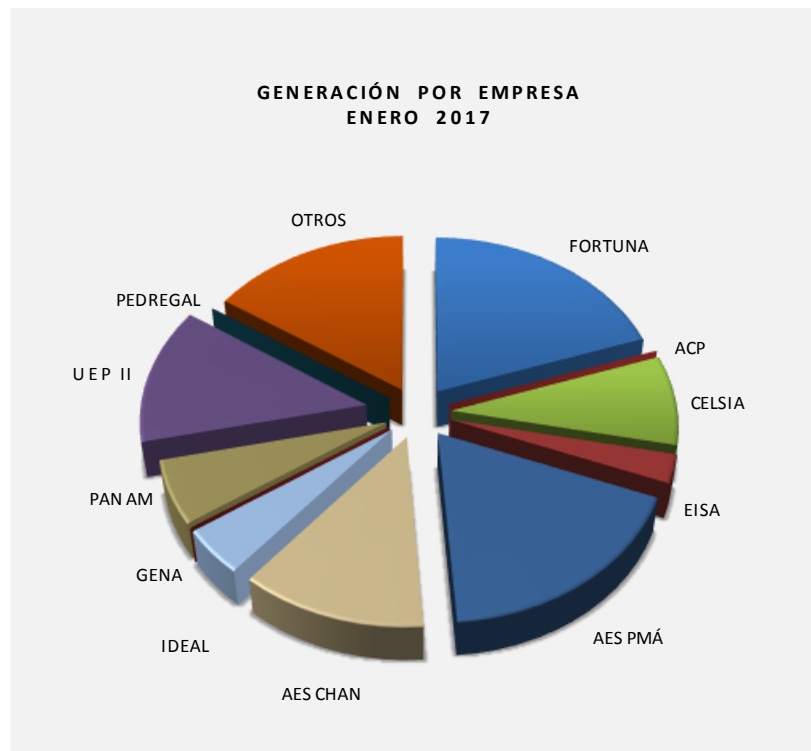


#### IV. GENERACIÓN POR EMPRESA Y PLANTA

Empresa	Planta	MWh
ENEL	Fortuna	156,355.21
AES Pmá	Bayano	7,756.68
AES Pmá	Estrella	17,626.89
AES Pmá	Valles	20,802.77
AES Pmá	Estí	43,699.12
AES Pmá	E de Mar	52,443.71
AES Chan	Chan	96,972.59
CELSIA	B L M	187.27
CELSIA	Alternegy	27,325.52
CELSIA	Bontex	8,213.77
CELSIA	IDB	31,342.84
PAN AM	PanAm	47,613.53
GENA	Gena	0.00
PEDREGAL	Pacora	0.00
IDEAL	Ideal	34,934.01
ACP	ACP	0.00
EISA	M Lirio	21,272.71
UEP	UEP	102,135.96
OTROS	Otros	123,225.62
	<b>TOTAL</b>	<b>791,908.19</b>



Empresa	MWh
FORTUNA	156,355.21
ACP	0.00
CELSIA	67,069.39
EISA	21,272.71
AES PMÁ	142,329.16
AES CHAN	96,972.59
IDEAL	34,934.01
GENA	0.00
PAN AM	47,613.53
U E P II	102,135.96
PEDREGAL	0.00
OTROS	123,225.62
<b>TOTAL</b>	<b>791,908.19</b>

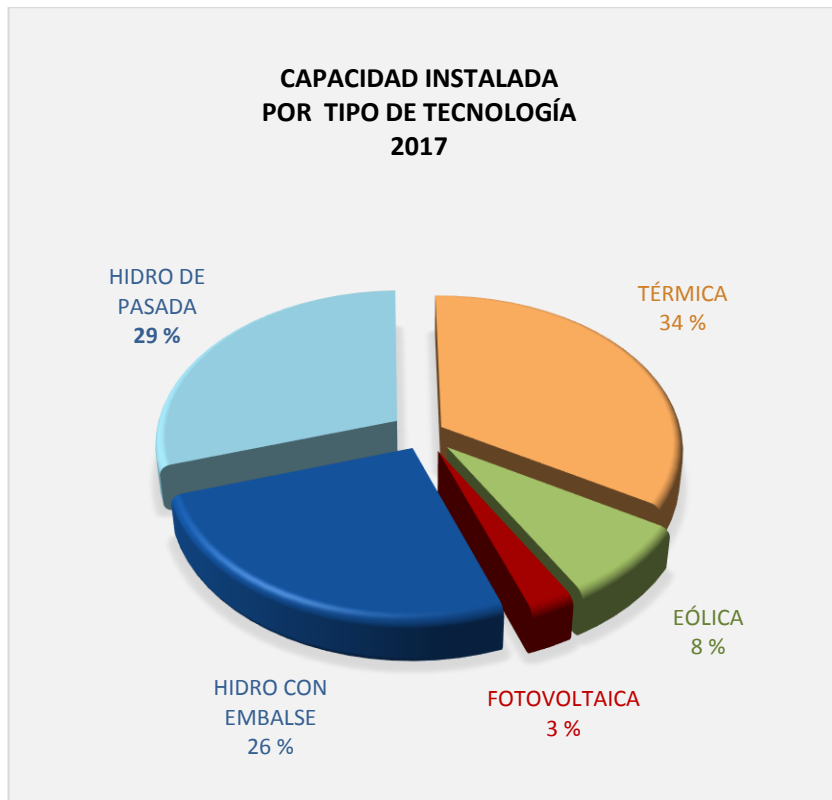


<b>OTROS</b>		
<b>Empresa</b>	<b>Planta</b>	<b>MWh</b>
Alto valle	A Valle	2,449.89
Café Eleta	Caldeco	7,193.81
San Lorenzo	S Lorenzo	2,991.66
Pedregalito	Pedregalito	1,680.92
Río Chico	Río Chico	1,466.20
Hidro Caisán	H Caisán	15,921.90
Paso Ancho	P Ancho	2,029.45
Istmus	Concepción	2,841.92
Perlas Norte	P Norte	2,922.05
Perlas Sur	P Sur	2,985.97
Saltos Francolí	Planetas	969.90
Hidro Ibérica	El Fraile	2,782.04
Emnadesa	Bugaba	1,423.69
Hidro Boquerón	Macano	1,516.45
Fountain	Bajo Frío	11,653.45
Electrogen Istmo	Mendre 2	2,874.89
Esepsa	Yeguada	3,073.75
Esepsa	Dolega	774.37
Esepsa	M Monte	718.84
Esepsa	Algarrobos	3,374.31
Hidro Panamá	Antón	973.05
Hid Candela	Hid Candela	0.00
Hidro Piedra	RP 490	6,157.41

Corp Isrmo	Corp Isrmo	4,372.74
H Eco Teribe	H Teribe	10,719.56
Genisa	Genisa	6,748.83
Totuma	Totuma	1,914.91
EGESA	Sarigua	257.40
Kanan	Kanan	321.73
Jinro	Jinro	4,148.39
Energyst	Energyst	0.00
El Fraile Solar	El Fraile	87.96
Solar Uno	Solar Uno	478.14
Solar Istmo	Solar Istmo	540.97
Bugaba Solar	Bugaba Solar	177.16
Canopo Solar	Canopo Solar	44.62
Azuero Venture	Azuero Venture	2,121.12
Coclé Venture	Coclé Venture	2,090.56
Panamá Venture	Panamá Venture	2,439.58
G Solar	Albrook	12.60
Enel	San Juan	1,640.18
Azucarera	Coclé Solar	185.43
Llano Sánchez	Ll. Sánchez	305.47
Farallón Solar 2	Farallón 2	133.15
Divisa Solar	D Solar	1,596.21
Valley Rise	El Giral	4,113.03
<b>TOTAL</b>		<b>123,225.62</b>

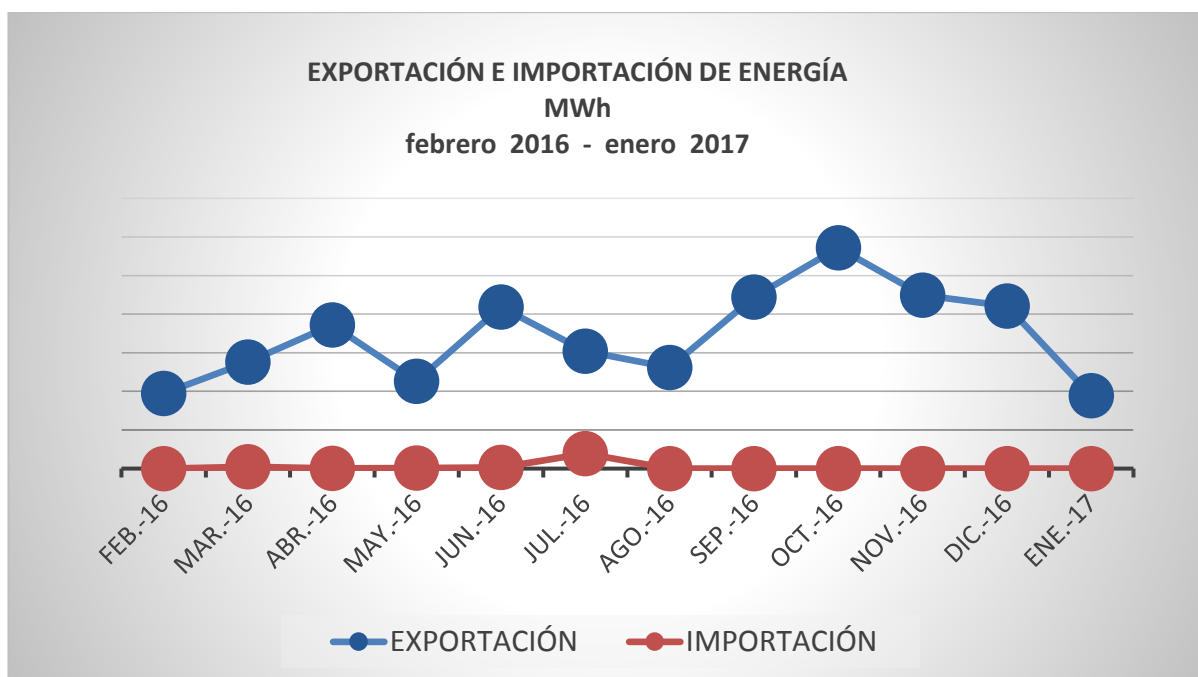
## V. CAPACIDAD INSTALADA POR TIPO DE TECNOLOGÍA

TIPO DE TECNOLOGÍA	MW	%
HIDRO CON EMBALSE	842.17	25.68%
HIDRO DE PASADA	969.48	29.56%
TÉRMICA	1,108.68	33.80%
EÓLICA	270.00	8.23%
FOTOVOLTAICA	89.53	2.73%
<b>TOTAL</b>	<b>3,279.86</b>	<b>100%</b>



## VI. IMPORTACIONES Y EXPORTACIONES

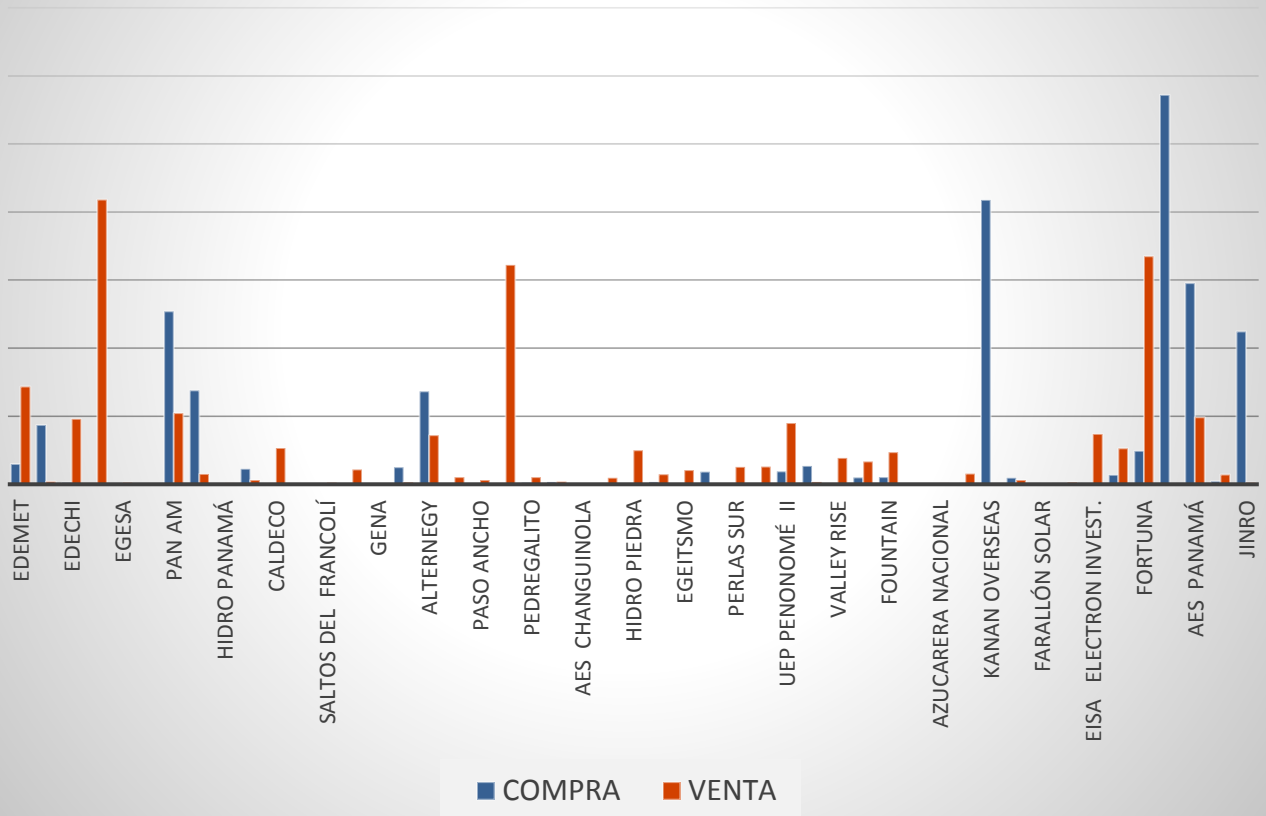
	EXPORTACIÓN MWh	IMPORTACIÓN MWh
feb-16	19,445.39	13.09
mar-16	27,570.41	510.00
abr-16	37,186.38	60.00
may-16	22,606.03	137.53
jun-16	41,855.45	309.77
jul-16	30,388.03	3,894.53
ago-16	26,200.95	0.00
sep-16	44,390.55	0.00
oct-16	57,181.59	0.00
nov-16	44,927.11	0.00
dic-16	42,085.97	0.00
ene-17	18,868.18	0.00



## VII. COMPRA Y VENTA DE ENERGÍA EN EL MERCADO OCASIONAL

MERCADO OCASIONAL ENERO 2017				
EMPRESA	COMPRA		VENTA	
	MWh	B/.	MWh	B/.
EDEMET	2,963.70	246,151.13	14,357.24	688,509.15
ENSA	8,716.51	604,527.95	376.62	15,016.25
EDECHI	255.51	21,612.19	9,613.83	502,711.23
ACP	8.73	161.94	41,822.71	2,645,112.61
EGESA	0.00	0.00	248.36	17,574.92
HIDRO CANDELA	25.88	1,534.97	0.00	0.00
PAN AM	25,399.09	786,550.28	10,442.88	866,243.37
PEDREGAL	13,806.31	573,790.01	1,532.97	125,167.17
HIDRO PANAMÁ	18.27	1,438.83	197.57	7,843.55
ISTMUS	2,293.23	169,943.90	624.14	21,298.79
CALDECO	0.00	0.00	5,347.63	263,561.59
CANOPO	0.00	0.00	124.51	8,747.55
SALTOS DEL FRANCOLÍ	109.50	6,929.35	269.06	14,220.25
SAN LORENZO	19.86	1,507.39	2,179.31	110,782.85
GENA	15.84	1,190.46	0.00	0.00
BONTEX	2,507.87	182,380.83	277.05	5,372.36
ALTERNEGY	13,643.98	624,252.91	7,189.07	337,991.97
HIDRO BOQUERON	0.00	0.00	1,055.30	54,968.22
PASO ANCHO	75.27	1,965.27	637.72	33,090.11
IDEAL	8.79	697.63	32,231.70	1,616,558.07
PEDREGALITO	270.77	16,091.05	1,042.07	56,769.50
HIDRO IBÉRICA	344.24	28,270.87	385.06	6,473.04
AES CHANGUINOLA	6.76	456.45	0.00	0.00
RÍO CHICO	26.65	1,663.15	945.85	52,600.30
HIDRO PIEDRA	0.00	0.00	4,987.70	261,504.57
ALTO VALLE	340.17	18,944.68	1,478.78	85,835.19
EGEITSMO	0.00	0.00	2,067.22	102,446.19
PERLAS NORTE	1,828.58	127,547.34	4.64	1.01
PERLAS SUR	166.93	11,688.42	2,576.08	133,993.63
UEP PENONOMÉ I	8.77	736.51	2,621.40	162,987.30
UEP PENONOMÉ II	1,896.12	143,971.07	9,015.24	479,342.86
EMNADESA	2,687.53	170,502.47	329.18	23,301.23
VALLEY RISE	110.93	5,657.62	3,850.14	297,855.82
HIDROECOLÓGICA TERIBE	1,021.52	81,210.15	3,374.46	141,292.33
FOUNTAIN	1,059.86	80,694.43	4,742.63	217,820.76
GENERACIÓN SOLAR	0.00	0.00	12.11	841.60
AZUCARERA NACIONAL	0.00	0.00	181.16	12,512.82
DIVISA SOLAR	0.00	0.00	1,563.23	107,998.83
KANAN OVERSEAS	41,767.26	2,480,629.55	0.00	0.00
CORP ENERGÍA ISTMO	971.04	71,408.89	609.38	36,247.58
FARALLÓN SOLAR	0.00	0.00	165.708	11,405.98
LLANO SÁNCHEZ SOLAR	0.00	0.00	300.002	20,597.75
EISA ELECTRON INVEST.	134.446	1,296.72	7,398.849	353,289.35
HYDRO CAISÁN	1,373.961	105,500.22	5,302.744	185,280.19
FORTUNA	4,918.368	4,918.368	33,521.427	1,947,309.88
BLM	57,191.310	3,453,083.33	0.00	0.00
AES PANAMÁ	29,558.951	2,106,637.09	9,842.632	523,212.82
ESEPSA	447.496	33,040.67	1,420.274	68,630.52
JINRO	22,468.109	1,250,906.46	263.715	21,952.80
COCLÉ VENTURE	0.000	0.00	1,937.659	132,586.21
PANAMÁ VENTURE	0.00	0.00	1,857.929	128,772.31
AZUERO VENTURE	0.00	0.00	2,001.922	139,695.68
ENERGYST	238.927	13,295.83	0.000	0.00
GENISA	6.063	57.10	6,386.217	385,515.42
BAJOS DEL TOTUMA			1,871.855	101,988.58
<b>TOTAL</b>	<b>238,713.07</b>	<b>13,432,843.48</b>	<b>238,713.07</b>	<b>13,432,843.48</b>

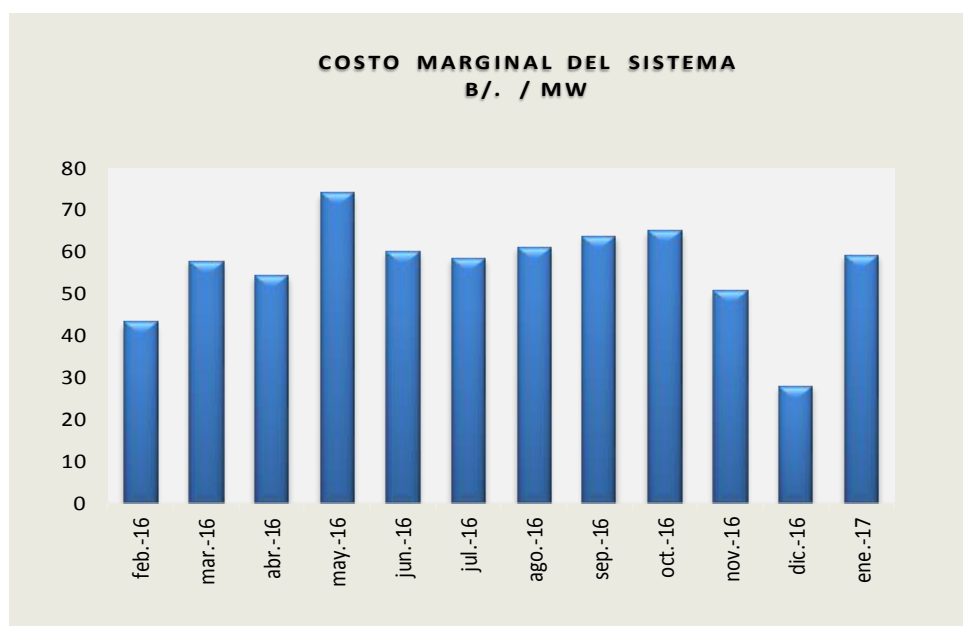
**ENERGÍA COMPRADA Y VENDIDA EN EL MERCADO OCASIONAL  
ENERO 2017 (MWh)**





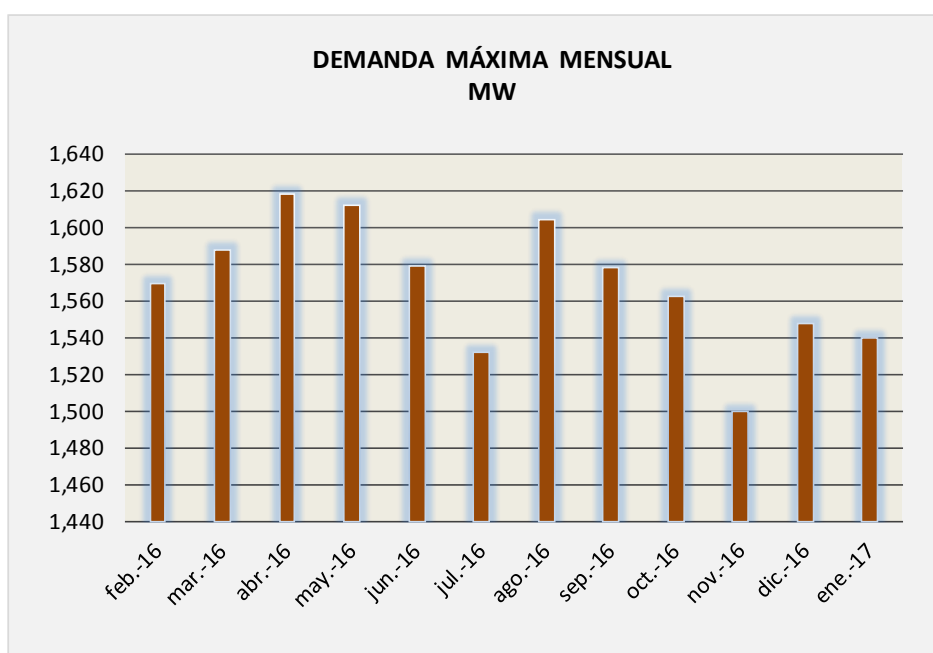
## VIII. COSTO MARGINAL DEL SISTEMA

	<b>CMS</b> <b>B/. / MWh</b>
feb-16	43.24
mar-16	57.8
abr-16	54.2
may-16	74.07
jun-16	60.17
jul-16	58.53
ago-16	61.07
sep-16	63.89
oct-16	65.03
nov-16	50.58
dic-16	27.85
ene-17	59.05



## IX. DEMANDA MÁXIMA MENSUAL Y ANUAL

	<b>Demanda</b> <b>Máxima</b>
feb-16	1,570
mar-16	1,588
abr-16	1,618
may-16	1612
jun-16	1579
jul-16	1,532
ago-16	1,604
sep-16	1,578
oct-16	1,563
nov-16	1,500
dic-16	1,548
ene-17	1,540



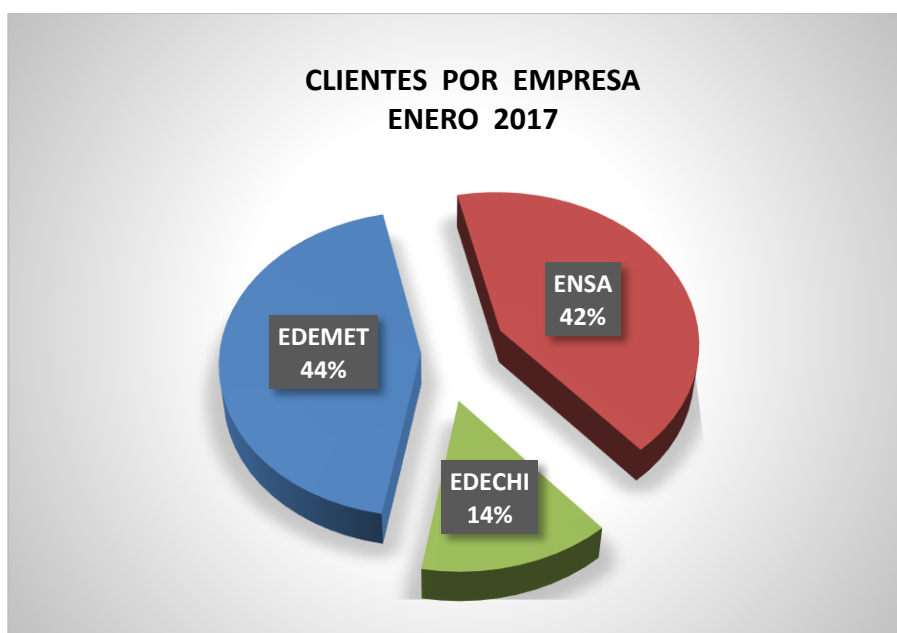
## X. COSTO DE ENERGÍA Y POTENCIA HIDRO Y TÉRMICO

ENERO	EDEMET				ENSA			
	HIDRO	TÉRMICO	EÓLICO	TOTAL	HIDRO	TÉRMICO	EÓLICO	TOTAL
COSTO POTENCIA (B./.)	9,231,193.38	5,343,432.19	0.00	14,574,625.57	2,444,233.73	7,811,108.20	0.00	10,255,341.93
COSTO ENERGÍA (B./.)	16,381,155.07	10,561,319.92	4,227,013.41	31,169,488.41	10,301,216.65	16,749,879.35	1,703,954.83	28,755,050.84
COSTO TOTAL (B./.)	25,612,348.46	15,904,752.11	4,227,013.41	45,744,113.98	12,745,450.38	24,560,987.55	1,703,954.83	39,010,392.77
ENERGÍA (MWh)	270,133.56	93,081.50	40,249.12	403,464.17	140,462.31	172,280.20	16,513.21	329,255.72
MONÓMICO (B./MWh)	94.81	170.87	105.02	113.38	90.74	142.56	103.19	118.48

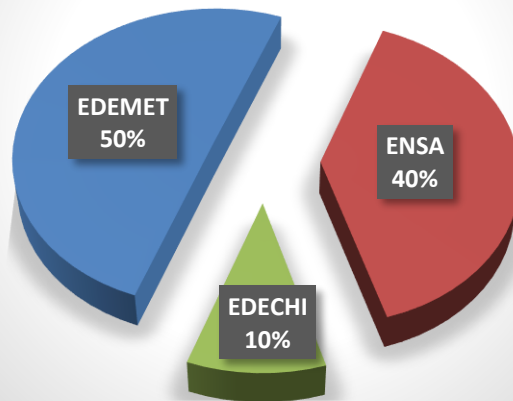
ENERO	EDECHI				TOTAL			
	HIDRO	TÉRMICO	EÓLICO	TOTAL	HIDRO	TÉRMICO	EÓLICO	TOTAL
COSTO POTENCIA (B./.)	717,524.47	1,135,084.25	0.00	1,852,608.72	12,392,951.58	14,289,624.64	0.00	26,682,576.22
COSTO ENERGÍA (B./.)	2,669,400.84	3,392,325.50	1,428,227.09	7,489,953.42	29,351,772.56	30,703,524.77	7,359,195.33	67,414,492.66
COSTO TOTAL (B./.)	3,386,925.31	4,527,409.75	1,428,227.09	9,342,562.14	41,744,724.14	44,993,149.41	7,359,195.33	94,097,068.89
ENERGÍA (MWh)	43,170.75	27,777.20	13,590.64	84,538.59	453,766.62	293,138.90	70,352.97	817,258.49
MONÓMICO (B./MWh)	78.45	162.99	105.09	110.51	92.00	153.49	104.60	115.14

## XI. CLIENTES, VENTAS E INGRESOS POR DISTRIBUIDORA

ENERO	NÚMERO DE CLIENTES	VENTAS (kWh)	INGRESOS US \$
EDEMET	456,102	340,654,837	56,260,923
ENSA	437,225	268,786,411	49,081,653
EDECHI	146,373	69,204,144	13,196,927
<b>TOTAL</b>	<b>1,039,700</b>	<b>678,645,392</b>	<b>118,539,503.11</b>



**VENTAS DE ENERGÍA POR EMPRESA  
ENERO 2017**



**INGRESOS POR EMPRESA  
ENERO 2017**

