

ANEXO 9
CONFIABILIDAD

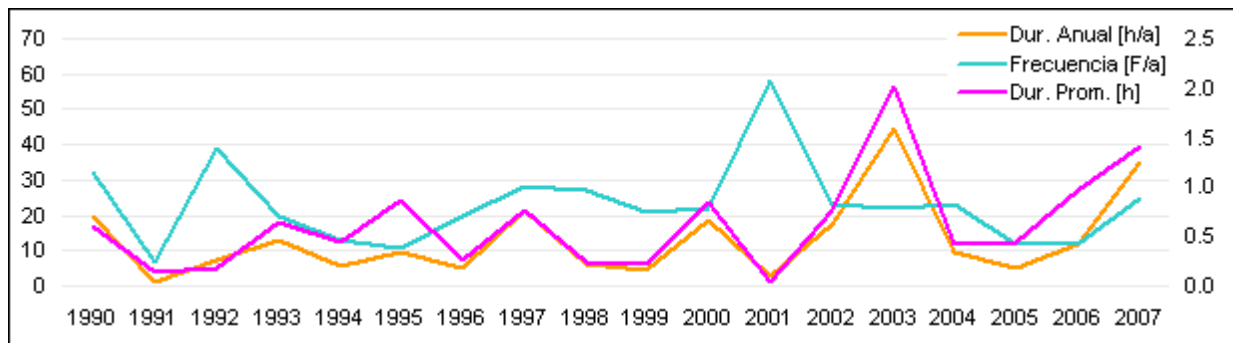
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1. Estadística de salidas forzadas en líneas a 230 kV

año	h/a	Disp. %	F/a	Promedio h	Red km	F/a 100 km
1990	19.52	99.78%	32.00	0.61	1,091.50	2.93
1991	1.02	99.99%	7.00	0.15	1,091.50	0.64
1992	7.10	99.92%	39.00	0.18	1,091.50	3.57
1993	13.00	99.85%	20.00	0.65	1,091.50	1.83
1994	5.83	99.93%	13.00	0.45	1,091.50	1.19
1995	9.63	99.89%	11.00	0.88	1,091.50	1.01
1996	5.08	99.94%	20.00	0.25	1,091.50	1.83
1997	21.68	99.75%	28.00	0.77	1,091.50	2.57
1998	6.38	99.93%	27.00	0.24	1,091.50	2.47
1999	4.52	99.95%	21.00	0.22	1,091.50	1.92
2000	18.72	99.79%	22.00	0.85	1,091.50	2.02
2001	2.55	99.97%	58.00	0.04	1,091.50	5.31
2002	17.48	99.80%	23.00	0.76	1,091.50	2.11
2003	44.52	99.49%	22.00	2.02	1,107.50	1.99
2004	9.85	99.89%	23.00	0.43	1,455.68	1.58
2005	5.31	99.94%	12.00	0.44	1,455.68	0.82
2006	11.67	99.87%	12.00	0.97	1,845.68	0.65
2007	35.07	99.60%	25.00	1.40	1,845.68	1.35
PROMEDIO=	13.27		23.06	0.58		1.99

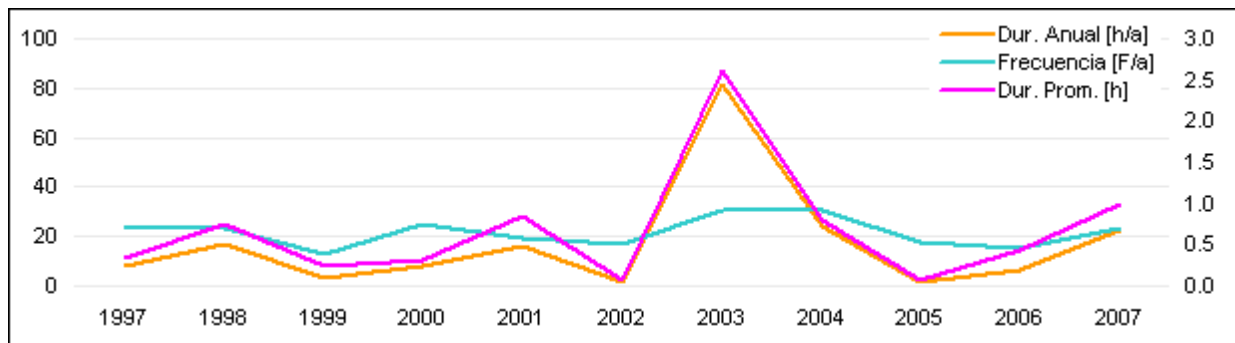
Max	58.00	2.02	5.31
Mim	7.00	0.04	0.64
Var	139.58	0.24	1.31
DesvEst	11.81	0.49	1.14



2. Estadística de salidas forzadas en líneas a 115 kV

año	h/a	Disp. %	F/a	Promedio h	Red km	F/a/100 km
1997	8.00	99.91%	24.00	0.33	308.60	7.78
1998	17.27	99.80%	23.00	0.75	308.60	7.45
1999	3.25	99.96%	13.00	0.25	308.60	4.21
2000	7.70	99.91%	25.00	0.31	308.60	8.10
2001	16.03	99.82%	19.00	0.84	308.60	6.16
2002	1.38	99.98%	17.00	0.08	308.60	5.51
2003	81.15	99.07%	31.00	2.62	308.60	10.05
2004	24.43	99.72%	31.00	0.79	302.67	10.24
2005	1.37	99.98%	18.00	0.08	302.67	5.95
2006	6.48	99.93%	15.00	0.43	302.67	4.96
2007	22.54	99.74%	23.00	0.98	302.67	7.60
PROMEDIO=	17.24		21.73	0.79		7.09

Max	31.00	2.62	10.24
Mim	13.00	0.08	4.21
Var	35.62	0.51	3.81
DesvEst	5.97	0.72	1.95



3. Resumen Estadísticas de Generadores

UNIDAD	ID	Op. Normal	Op. Limitada	Serv. Reserva	Mant. Prog.	Salida Forzada	Número Salidas	Prom. Disp.	Prom. Indisp.
		HON	HOL	HSR	HMP	FOH	1/a	h	h
ACPBU_6	MIR13F	7,440	193	114	370	648	36	1,761	246
ACPTG_1	MIR13A	84	0	7,483	339	622	2	1,761	246
ACPTG_2	MIR13B	77	0	7,583	576	291	3	1,761	246
ACPTG_5	MIR13E	8	0	5,752	789	579	4	1,761	246
ACPTV_3	MIR13C	4,226	230	3,500	282	165	15	1,761	246
ACPTV_4	MIR13D	6,236	155	702	395	916	17	1,761	246
BAYANO 3	BAY13C	3,120	0	4,090	288	17	7	1,089	122
BAYANO 1	BAY13A	3,690	4	3,723	1,281	68	8	1,089	122
BAYANO 2	BAY13B	3,792	77	3,927	845	125	6	1,089	122
BLM 2	BLM13B	0	4,112	3,423	257	974	18	454	56
BLM 3	BLM13C	260	5,352	1,993	563	599	36	454	56
BLM 4	BLM13D	0	4,384	2,496	951	935	17	454	56
BLM 8	BLMCCA	1,483	2,585	4,014	411	273	13	454	56
BLM 9	BLMCCB	3,928	601	3,996	103	138	14	454	56
COPESA	COPESA13	481	0	7,933	302	49	10	831	35
EGESA 1	TG1	45	135	5,699	1	1,464	3	1,468	368
EGESA 2	TG2	118	171	5,572	2	1,482	6	1,468	368
ESTI 1	CANJ13A	5,050	78	1,929	98	59	9	697	15
ESTI 2	CANJ13B	5,084	20	1,972	77	62	11	697	15
ESTRELLA 1	EST-13L	4,667	2,433	937	667	62	10	820	67
ESTRELLA 2	EST-13T	4,963	1,971	1,234	564	34	10	820	67
FORTUNA 1	FOR13A	7,078	257	799	577	56	9	722	56
FORTUNA 2	FOR13B	7,146	232	799	525	64	13	722	56
FORTUNA 3	FOR13C	7,054	227	834	600	50	12	722	56
JB 5	TGJB13A	985	2,666	4,284	263	569	9	813	136
JB 6	TGJB13B	745	2,339	3,920	209	1,552	10	813	136
L.VALLES 1	LV-13_8 BL	4,806	1,995	829	982	153	9	857	117
L.VALLES 2	LV-13_8 BT	5,242	1,688	873	829	135	9	857	117
PACORA 1	PACORA13	7,916	68	136	367	230	26	290	21
PACORA 2	PACORA13	7,912	71	137	401	196	27	290	21
PACORA 3	PACORA13	7,913	67	137	418	182	32	290	21
PANAM 1	PANAM13A	6,888	652	297	682	247	70	112	12
PANAM 2	PANAM13A	6,279	1,313	340	576	258	67	112	12
PANAM 3	PANAM13A	6,436	1,183	299	700	148	72	112	12
PANAM 4	PANAM13B	6,915	693	326	634	198	76	112	12
PANAM 5	PANAM13B	6,882	622	362	608	292	65	112	12
PANAM 6	PANAM13B	6,965	506	369	645	281	74	112	12

4. Demanda por barra año 2013

Busbar	Máxima - Invierno		Máxima - Verano		Mínima - Verano	
	MW	Mvar	MW	Mvar	MW	Mvar
10 L_S_34	0.29	0.05	0.29	0.05	0.12	0.02
124 MIR44	21.33	3.74	21.76	3.81	8.65	1.51
131 BAL44	19.21	3.37	19.60	3.43	7.79	1.36
132 SUM44	2.11	0.37	2.15	0.38	0.85	0.15
137 GAM44	3.20	0.56	3.26	0.57	1.30	0.23
138 ACL44	3.20	0.56	3.26	0.57	1.30	0.23
13 MDNA34	80.65	14.13	82.27	14.41	32.68	5.73
154 CEMPAN15	9.34	1.64	9.53	1.67	3.78	0.66
160 GEEHAN13_8	16.63	2.91	16.97	2.97	6.74	1.18
16 PRO34	16.00	2.80	16.32	2.86	6.48	1.14
192 CHANG34	14.18	2.48	14.46	2.53	5.75	1.01
19 C_V115	99.22	17.38	101.22	17.73	40.21	7.04
21 C_BAN115	93.07	16.30	94.95	16.63	37.72	6.61
23 CH115	55.95	9.80	57.08	10.00	22.68	3.97
26 LOC115	112.56	19.72	114.83	20.12	45.62	7.99
26 LOC115	0.87	0.15	0.89	0.16	0.35	0.06
30 MAR115	129.43	22.67	132.04	23.13	52.45	9.19
33 STM115	91.56	16.04	93.41	16.36	37.11	6.50
37 SAN115	116.33	20.38	118.67	20.79	47.15	8.26
48 TINAJ115	42.51	7.45	43.36	7.60	17.23	3.02
50 M_O115	59.70	10.46	60.91	10.67	24.20	4.24
50 M_O115	0.72	0.13	0.73	0.13	0.29	0.05
512 LGUIAS 34_5	24.37	4.27	24.86	4.36	9.88	1.73
52 TOC115	51.04	8.94	52.07	9.12	20.68	3.62
52 TOC115	1.41	0.25	1.44	0.25	0.57	0.10
52 TOC115	2.36	0.41	2.41	0.42	0.96	0.17
52 TOC115	0.75	0.13	0.76	0.13	0.30	0.05
52 TOC115	0.87	0.15	0.88	0.15	0.35	0.06
57 L_M_13	58.17	10.19	59.34	10.40	23.58	4.13
61 FFIELD	66.31	11.62	67.64	11.85	26.87	4.71
7 CHO34	76.65	13.43	78.19	13.70	31.06	5.44
85 PTP230	40.79	7.15	41.61	7.29	16.53	2.90
9 LSA115	126.42	22.15	128.96	22.59	51.23	8.98
	1437.14	251.76	1466.12	256.83	582.45	102.04

5. Despachos de Generación (MW)

Máquina	2013		
	MaxInv	MaxVer	MinVer
101 BAY13A	65.45	88.24	
102 BAY13B	48.47	56.45	
106 PANAM13A		15.00	
106 PANAM13A		15.00	
106 PANAM13A		15.00	
108 BAY13C	48.47	56.45	
116 PACORA13		17.00	
116 PACORA13		17.00	
129 MIR13D	35.00	35.00	
130 MIR13F	17.10	17.10	
140 GAT6A	1.94	1.94	
140 GAT6A	1.94	1.94	
140 GAT6A	1.94	1.94	
141 GAT6B	3.87	3.87	
141 GAT6B	3.87	3.87	
141 GAT6B	3.87	3.87	
142 CANJ13A	57.00	40.00	35.00
143 CANJ13B	57.00	40.00	
151 GUALACA13_8	23.80	20.50	18.50
170 MIR13G	17.00	17.00	15.47
171 MIR13H	17.00	17.00	15.46
171 MIR13H	17.00	17.00	15.46
193 GEBONYIC	30.00	30.00	
204 BJOMIN13	24.70	24.00	24.00
204 BJOMIN13	24.70		
205 BAITUN13_8	40.00	40.00	33.00
205 BAITUN13_8	40.00		
301 CONC13_8		8.30	8.30
302 PASOANCH13_8	4.75	3.70	3.70
304 ALGA13_8	9.20	8.10	8.10
305 ELALTO13_8	19.00	20.00	19.00
305 ELALTO13_8	19.00	20.00	
305 ELALTO13_8	19.00	20.00	
307 CHAN1 A	100.00	70.00	62.00
308 CHAN1 B	100.00	70.00	
311 PANDO13_8	14.00		
311 PANDO13_8	14.00		
316 MONTE LIRIO	24.50		
316 MONTE LIRIO	24.50		
317 MENDRE13_8	9.40	9.40	8.00
317 MENDRE13_8	9.40		
342 LORENA13_8	16.90	16.90	13.70
342 LORENA13_8	16.90		
343 PRUDENCIA138	26.00		
343 PRUDENCIA138	26.00		
521 EGIRAL13_8 1		3.60	
521 EGIRAL13_8 1		3.60	
521 EGIRAL13_8 1		3.60	
521 EGIRAL13_8 1		3.60	

Máquina	2013		
	MaxInv	MaxVer	MinVer
523 TCATIVÁ 13A		8.20	
523 TCATIVÁ 13A		8.20	
523 TCATIVÁ 13A		8.20	
523 TCATIVÁ 13A		8.20	
523 TCATIVÁ 13A		8.20	
524 TCATIVÁ 13B		8.20	
524 TCATIVÁ 13B		8.20	
524 TCATIVÁ 13B		8.20	
524 TCATIVÁ 13B		8.20	
524 TCATIVÁ 13B		8.20	
531 EGIRAL13_8 2		8.00	
531 EGIRAL13_8 2		8.00	
531 EGIRAL13_8 2		8.00	
531 EGIRAL13_8 2		8.00	
541 PETOABRE	60.00	105.00	105.00
66 BLM13B	29.00	38.00	38.00
67 BLM13C	29.00	38.00	38.00
68 BLM13D		38.00	
90 EST-13L	22.00	22.00	18.00
91 EST-13T	22.00		
94 LV-13_8L	25.00	25.00	20.00
95 LV-13_8T	25.00		
97 FOR13A	95.00	95.00	99.91
98 FOR13B	95.00	95.00	
99 FOR13C	95.00	95.00	
	1529.65	1520.96	598.60