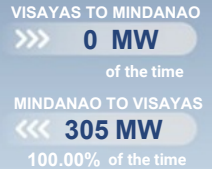
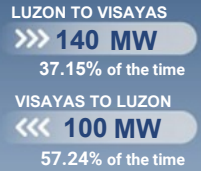




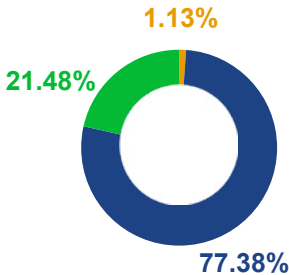
MARKET OUTCOMES



HVDC AVERAGE MW FLOW



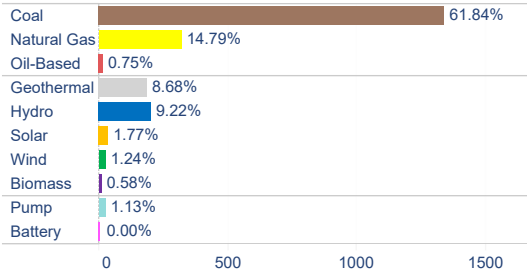
GENERATION MIX



1,679 GWH
Non-renewables

466 GWH
Renewables

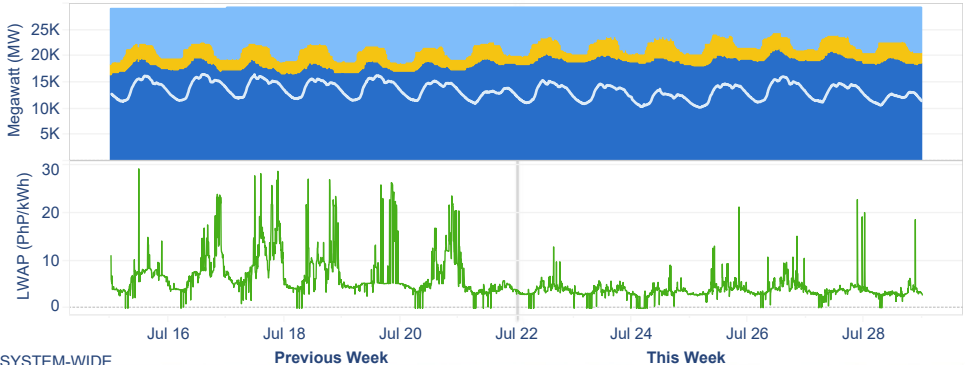
25 GWH
Energy Storage System



SYSTEM-WIDE

SUPPLY DEMAND PRICE

Outage Capacity Derated Capacity Available Capacity Demand



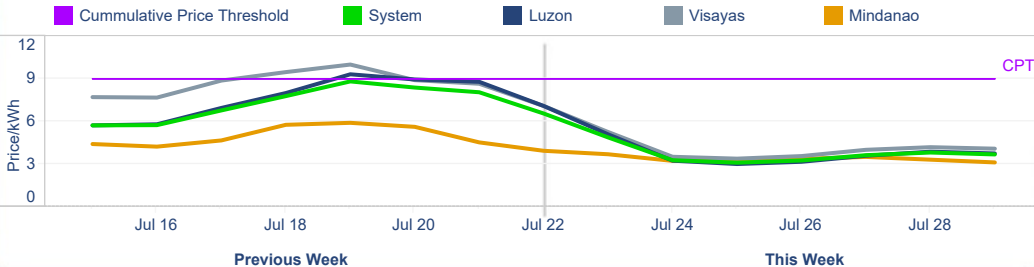
SYSTEM-WIDE

Previous Week

This Week



ROLLING AVERAGE GENERATOR WEIGHTED AVERAGE PRICE



PRICE DISTRIBUTION

System

	Below 0 P/kWh	0 - 2.5 P/kWh	2.5 - 5 P/kWh	5 - 10 P/kWh	Above 10 P/kWh
Jul 22	1%	2%	89%	8%	0%
Jul 23	1%	6%	91%	2%	0%
Jul 24	0%	31%	67%	2%	0%
Jul 25	0%	2%	84%	13%	1%
Jul 26	0%	2%	76%	21%	1%
Jul 27	0%	10%	85%	4%	1%
Jul 28	0%	11%	88%	1%	1%

Luzon

	Below 0 P/kWh	0 - 2.5 P/kWh	2.5 - 5 P/kWh	5 - 10 P/kWh	Above 10 P/kWh
Jul 22	1%	2%	90%	8%	0%
Jul 23	1%	6%	91%	2%	0%
Jul 24	2%	33%	64%	1%	0%
Jul 25	0%	2%	83%	13%	1%
Jul 26	0%	2%	72%	25%	1%
Jul 27	0%	10%	83%	6%	1%
Jul 28	0%	13%	84%	2%	1%

Visayas

	Below 0 P/kWh	0 - 2.5 P/kWh	2.5 - 5 P/kWh	5 - 10 P/kWh	Above 10 P/kWh
Jul 22	1%	1%	88%	9%	1%
Jul 23	1%	3%	94%	2%	0%
Jul 24	0%	22%	75%	2%	1%
Jul 25	0%	1%	84%	14%	1%
Jul 26	0%	1%	63%	32%	5%
Jul 27	0%	9%	75%	14%	1%
Jul 28	0%	5%	87%	7%	1%

Mindanao

	Below 0 P/kWh	0 - 2.5 P/kWh	2.5 - 5 P/kWh	5 - 10 P/kWh	Above 10 P/kWh
Jul 22	1%	2%	89%	8%	1%
Jul 23	1%	4%	93%	2%	0%
Jul 24	1%	20%	76%	2%	1%
Jul 25	0%	1%	86%	12%	1%
Jul 26	0%	1%	82%	17%	0%
Jul 27	0%	10%	89%	0%	0%
Jul 28	1%	11%	88%	0%	0%

PRICING CONDITION

	LUZON					VISAYAS					MINDANAO				
	OK	PEN	PSM	SEC	AP	OK	PEN	PSM	SEC	AP	OK	PEN	PSM	SEC	AP
Jul 22	287	1	0	0	0	287	1	0	0	0	287	1	0	0	0
Jul 23	288	0	0	0	0	288	0	0	0	0	288	0	0	0	0
Jul 24	287	1	0	0	0	287	1	0	0	0	287	1	0	0	0
Jul 25	280	8	0	0	0	280	8	0	0	0	280	8	0	0	0
Jul 26	284	4	0	0	0	262	4	0	22	0	284	4	0	0	0
Jul 27	287	1	0	0	0	287	1	0	0	0	287	1	0	0	0
Jul 28	284	4	0	0	0	284	4	0	0	0	284	4	0	0	0

REGIONAL INTERCONNECTION

VISAYAS-LUZON HVDC INTERCONNECTION

From Luzon to Visayas

	Maximum	Average	% of Time
Jul 22	240	102	27%
Jul 23	250	193	56%
Jul 24	250	162	75%
Jul 25	250	105	57%
Jul 26	226	90	30%
Jul 27	36	31	2%
Jul 28	250	140	13%

From Visayas to Luzon

	Maximum	Average	% of Time
Jul 22	260	82	64%
Jul 23	231	124	43%
Jul 24	38	12	15%
Jul 25	130	53	39%
Jul 26	172	57	63%
Jul 27	258	119	94%
Jul 28	321	153	82%

MINDANAO-VISAYAS HVDC INTERCONNECTION

From Visayas to Mindanao

	Maximum	Average	% of Time
Jul 22	0	0	0%
Jul 23	0	0	0%
Jul 24	0	0	0%
Jul 25	0	0	0%
Jul 26	0	0	0%
Jul 27	0	0	0%
Jul 28	0	0	0%

From Mindanao to Visayas

	Maximum	Average	% of Time
Jul 22	450	373	100%
Jul 23	450	250	100%
Jul 24	439	209	100%
Jul 25	450	301	100%
Jul 26	450	319	100%
Jul 27	450	389	100%
Jul 28	450	295	100%

SUPPLY, DEMAND AND PRICE TABLE

Luzon

	SUPPLY			DEMAND			PRICE		
	MIN	AVE	MAX	MIN	AVE	MAX	MIN	AVE	MAX
Jul 22	12,829	13,512	14,385	8,035	9,490	10,992	0	3,534	6,143
Jul 23	13,124	13,734	14,492	7,754	9,095	10,328	-1	3,092	5,218
Jul 24	12,613	13,275	14,390	7,253	8,033	9,259	-100	2,378	5,853
Jul 25	12,386	13,387	14,413	6,919	8,772	9,971	104	3,732	20,374
Jul 26	13,272	13,962	15,136	7,832	9,697	11,170	86	4,174	20,114
Jul 27	13,136	13,832	14,842	7,988	9,568	10,702	85	3,749	31,315
Jul 28	12,753	13,161	13,895	7,637	8,583	9,225	86	3,325	27,492

Visayas

	SUPPLY			DEMAND			PRICE		
	MIN	AVE	MAX	MIN	AVE	MAX	MIN	AVE	MAX
Jul 22	2,017	2,175	2,392	1,544	1,944	2,275	0	3,780	11,778
Jul 23	2,122	2,209	2,348	1,580	1,921	2,175	0	3,393	5,533
Jul 24	2,110	2,211	2,370	1,495	1,913	2,271	0	2,951	11,431
Jul 25	2,113	2,234	2,482	1,603	2,010	2,355	1,253	3,956	20,819
Jul 26	2,052	2,250	2,496	1,647	2,055	2,426	105	4,810	20,562
Jul 27	2,023	2,119	2,333	1,564	1,836	2,039	99	3,857	32,000
Jul 28	1,938	2,095	2,324	1,458	1,712	2,005	87	3,604	28,056

Mindanao

	SUPPLY			DEMAND			PRICE		
	MIN	AVE	MAX	MIN	AVE	MAX	MIN	AVE	MAX
Jul 22	3,509	3,557	3,632	1,512	1,967	2,376	0	3,519	11,544
Jul 23	3,398	3,503	3,628	1,591	1,994	2,359	0	3,301	5,343
Jul 24	3,395	3,564	3,622	1,621	2,046	2,404	0	2,857	11,547
Jul 25	3,559	3,586	3,634	1,686	2,102	2,500	1,248	3,757	20,394
Jul 26	3,546	3,685	3,927	1,744	2,132	2,558	86	3,767	12,641
Jul 27	3,766	3,799	3,832	1,620	1,934	2,250	0	2,861	3,751
Jul 28	3,633	3,653	3,692	1,535	1,799	2,103	0	2,749	5,252

GENERATION MIX TABLE

Luzon

	NON-RENEWABLE ENERGY			RENEWABLE ENERGY					ESS	
	Coal	Natural Gas	Oil-Based	Geothermal	Hydro	Solar	Wind	Biomass	Pump	Battery
Jul 22	65.27%	21.47%	1.37%	4.92%	2.39%	1.19%	0.99%	0.63%	1.78%	0.00%
Jul 23	63.28%	20.98%	1.81%	5.11%	2.94%	0.94%	2.29%	0.69%	1.96%	0.00%
Jul 24	56.38%	23.45%	1.57%	5.68%	5.05%	0.88%	3.22%	0.80%	2.96%	0.00%
Jul 25	60.19%	22.29%	0.01%	5.23%	5.74%	1.39%	2.20%	0.70%	2.26%	0.00%
Jul 26	62.64%	20.27%	0.08%	4.70%	6.52%	2.16%	1.45%	0.66%	1.52%	0.00%
Jul 27	63.65%	19.56%	0.05%	4.91%	7.07%	2.74%	0.32%	0.70%	1.00%	0.00%
Jul 28	63.40%	20.71%	0.00%	5.36%	7.41%	2.20%	0.17%	0.76%	0.00%	0.00%

Visayas

	NON-RENEWABLE ENERGY		RENEWABLE ENERGY					ESS	
	Coal	Oil-Based	Geothermal	Hydro	Solar	Wind	Biomass	Battery	
Jul 22	54.76%	1.73%	34.96%	1.76%	3.72%	2.54%	0.53%	0.00%	
Jul 23	55.50%	1.84%	35.48%	1.71%	2.70%	2.24%	0.54%	0.00%	
Jul 24	53.95%	2.09%	36.37%	1.54%	3.43%	2.34%	0.28%	0.00%	
Jul 25	54.89%	2.09%	34.35%	1.61%	4.98%	2.09%	0.00%	0.00%	
Jul 26	55.51%	2.17%	34.22%	1.50%	5.30%	1.27%	0.00%	0.02%	
Jul 27	54.00%	1.63%	38.56%	1.71%	3.84%	0.26%	0.00%	0.00%	
Jul 28	53.24%	1.61%	38.30%	1.86%	4.62%	0.37%	0.00%	0.00%	

Mindanao

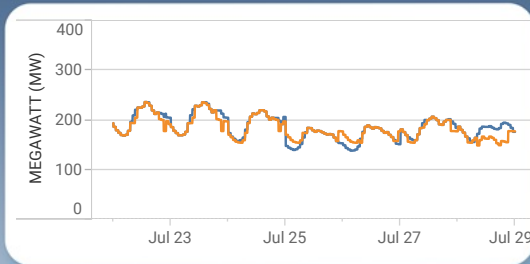
	NON-RENEWABLE ENERGY		RENEWABLE ENERGY				ESS	
	Coal	Oil-Based	Hydro	Geothermal	Solar	Biomass	Battery	
Jul 22	66.88%	0.15%	28.85%	3.17%	0.59%	0.35%	0.00%	
Jul 23	64.71%	0.20%	30.68%	3.25%	0.61%	0.55%	0.00%	
Jul 24	65.39%	0.20%	30.09%	3.15%	0.62%	0.54%	0.00%	
Jul 25	66.57%	0.25%	28.96%	3.24%	0.60%	0.37%	0.00%	
Jul 26	66.85%	0.29%	28.63%	3.48%	0.61%	0.14%	0.00%	
Jul 27	64.92%	0.25%	30.31%	3.80%	0.42%	0.30%	0.00%	
Jul 28	61.56%	0.04%	33.29%	4.19%	0.59%	0.34%	0.00%	



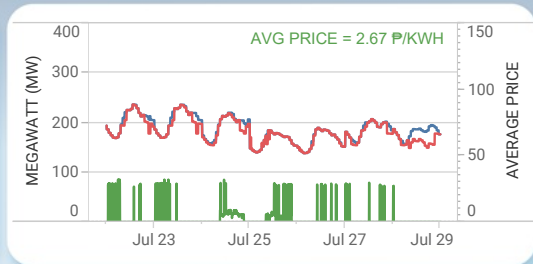
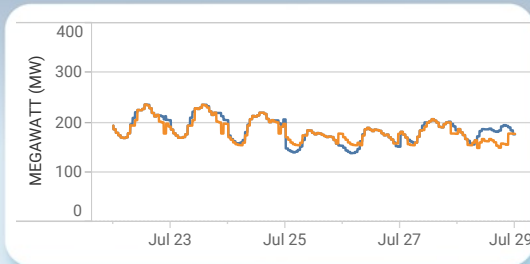
LUZON RESERVES

■ Reserve Requirement ■ Reserve Offers ■ Reserve Schedule ■ Zonal Reserve Price

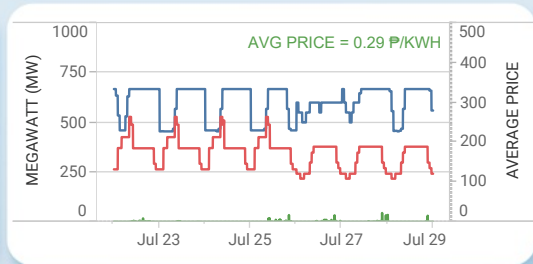
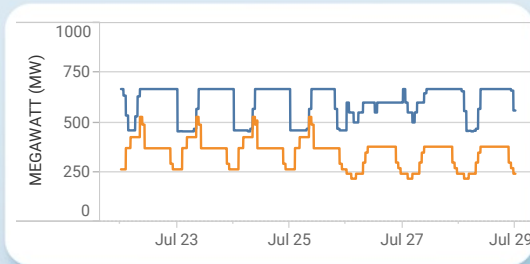
REGULATION UP RESERVE



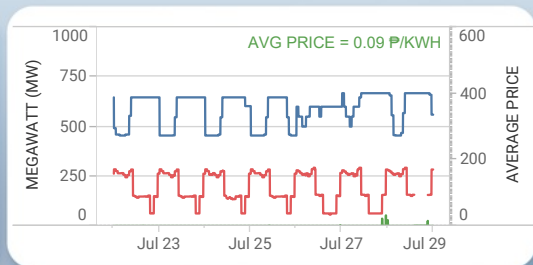
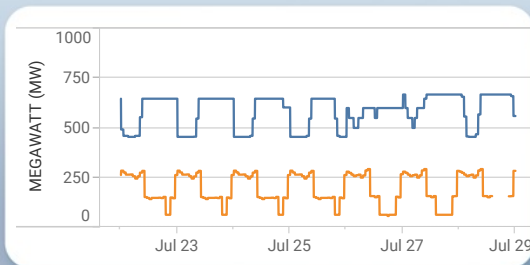
REGULATION DOWN RESERVE



CONTINGENCY RESERVE



DISPATCHABLE RESERVE

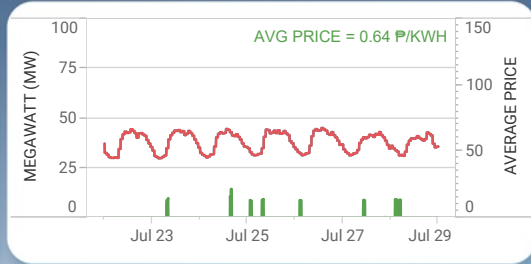
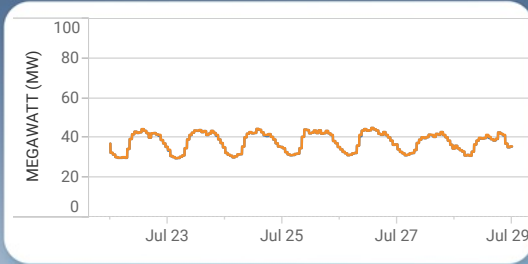




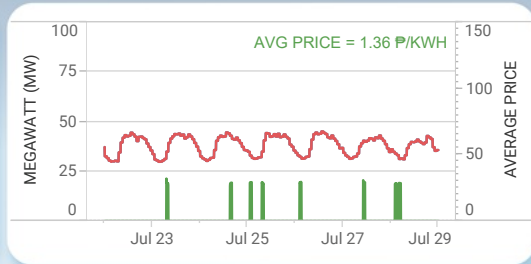
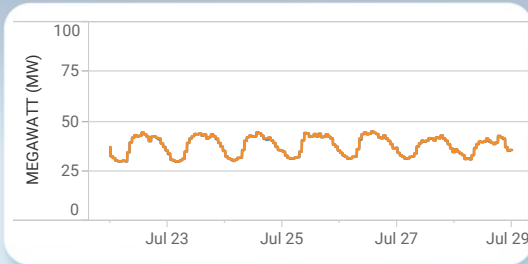
VISAYAS RESERVES

■ Reserve Requirement ■ Reserve Offers ■ Reserve Schedule ■ Zonal Reserve Price

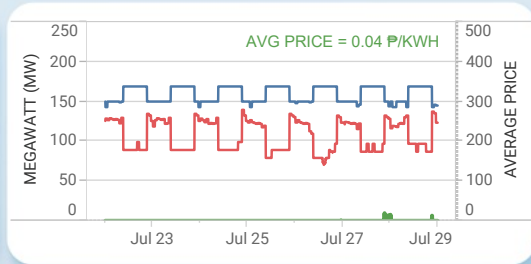
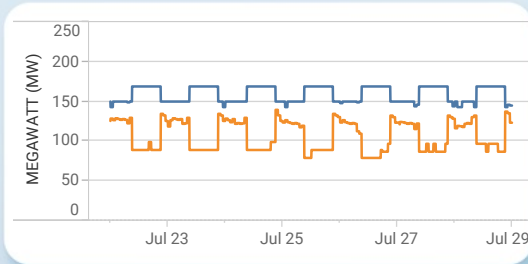
REGULATION UP RESERVE



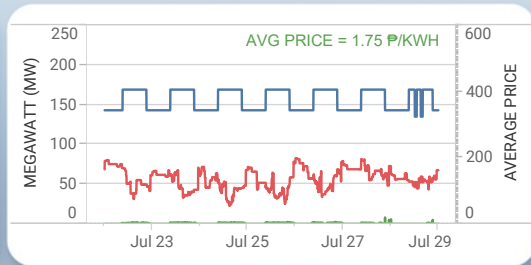
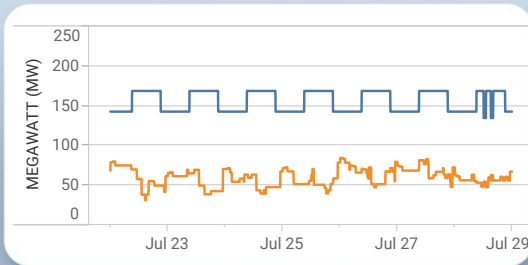
REGULATION DOWN RESERVE



CONTINGENCY RESERVE



DISPATCHABLE RESERVE

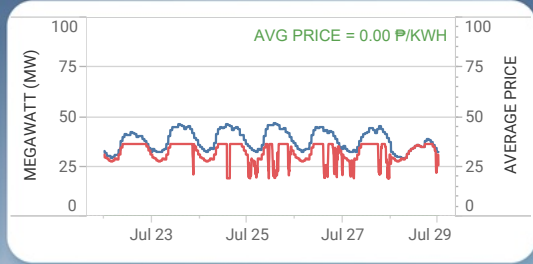
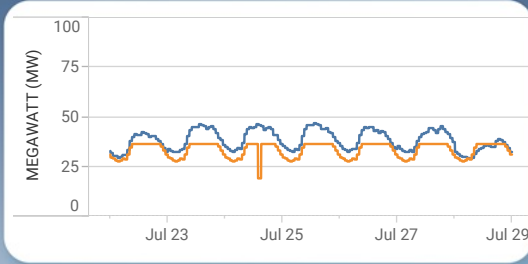




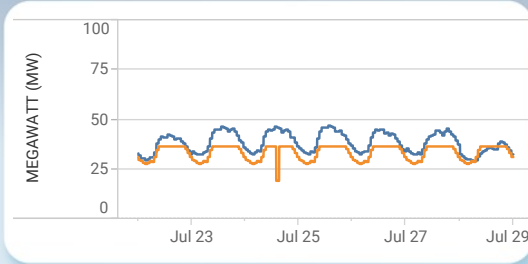
MINDANAO RESERVES

■ Reserve Requirement ■ Reserve Offers ■ Reserve Schedule ■ Zonal Reserve Price

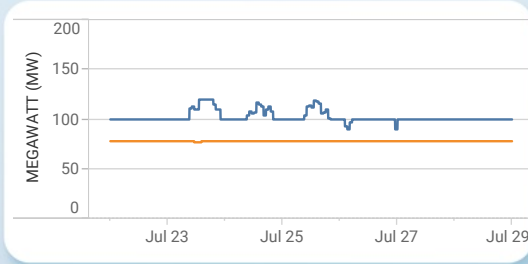
REGULATION UP RESERVE



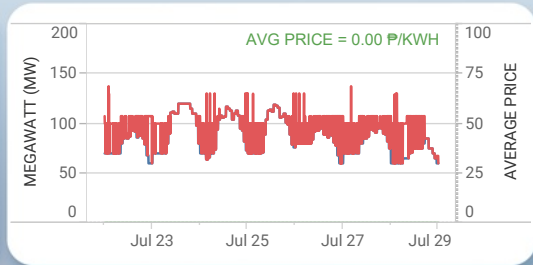
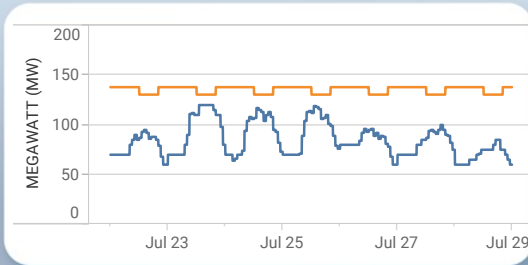
REGULATION DOWN RESERVE



CONTINGENCY RESERVE



DISPATCHABLE RESERVE



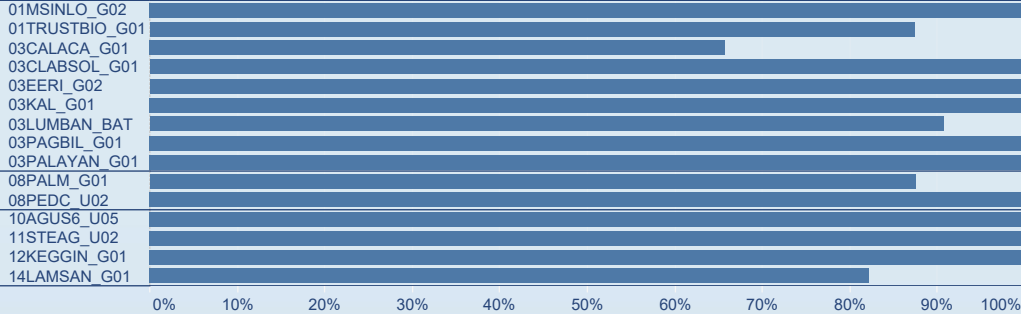
AVERAGE RESERVE REQUIREMENT AND SCHEDULE

LUZ	Regulation Up			Regulation Down			Contingency Reserve			Dispatchable Reserve		
	Req't	Sched	Surplus or Deficit	Req't	Sched	Surplus or Deficit	Req't	Sched	Surplus or Deficit	Req't	Sched	Surplus or Deficit
Jul 22	205	199	-6	205	201	-5	628	370	-258	582	196	-386
Jul 23	207	201	-5	207	202	-5	593	370	-223	579	196	-383
Jul 24	194	191	-3	194	189	-5	595	370	-224	574	193	-381
Jul 25	164	164	0	164	163	-1	556	370	-186	543	196	-348
Jul 26	165	165	-1	165	165	0	581	318	-263	581	180	-401
Jul 27	187	184	-4	187	184	-3	634	318	-316	634	181	-453
Jul 28	180	164	-16	180	164	-16	610	318	-292	610	163	-447

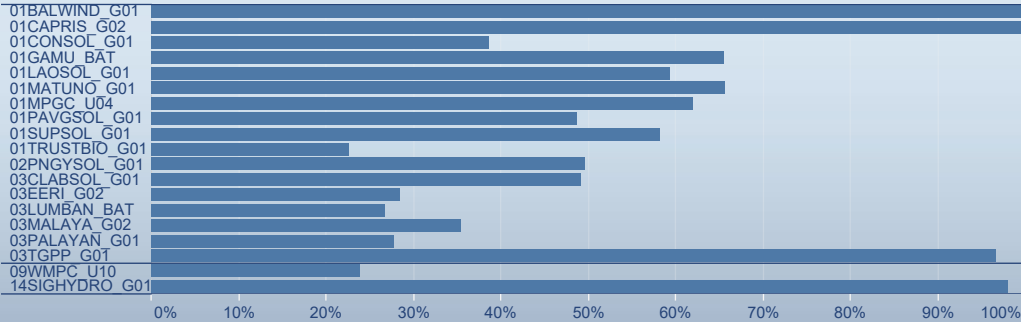
VIS	Regulation Up			Regulation Down			Contingency Reserve			Dispatchable Reserve		
	Req't	Sched	Surplus or Deficit	Req't	Sched	Surplus or Deficit	Req't	Sched	Surplus or Deficit	Req't	Sched	Surplus or Deficit
Jul 22	38	38	0	38	38	0	159	109	-50	156	60	-96
Jul 23	38	38	0	38	38	0	159	108	-51	156	53	-103
Jul 24	38	38	0	38	38	0	160	109	-51	156	49	-107
Jul 25	39	39	0	39	39	0	159	106	-53	156	51	-105
Jul 26	39	39	0	39	39	0	159	102	-57	156	60	-96
Jul 27	38	38	0	38	38	0	159	107	-52	156	67	-89
Jul 28	37	37	0	37	37	0	158	109	-49	153	56	-97

MIN	Regulation Up			Regulation Down			Contingency Reserve			Dispatchable Reserve		
	Req't	Sched	Surplus or Deficit	Req't	Sched	Surplus or Deficit	Req't	Sched	Surplus or Deficit	Req't	Sched	Surplus or Deficit
Jul 22	37	34	-3	37	34	-3	100	78	-22	78	97	18
Jul 23	40	33	-7	40	34	-6	108	78	-30	97	107	9
Jul 24	40	32	-8	40	33	-8	104	78	-26	92	101	9
Jul 25	40	30	-10	40	34	-7	105	78	-27	92	101	9
Jul 26	39	31	-8	39	34	-6	99	78	-21	83	95	12
Jul 27	39	32	-8	39	34	-6	100	78	-22	82	95	13
Jul 28	34	32	-1	34	33	-1	100	78	-22	69	89	20

GENERATORS ON OUTAGE



GENERATORS WITH SYSTEM OPERATOR OVERRIDING CONSTRAINT



FREQUENT CONGESTIONS

