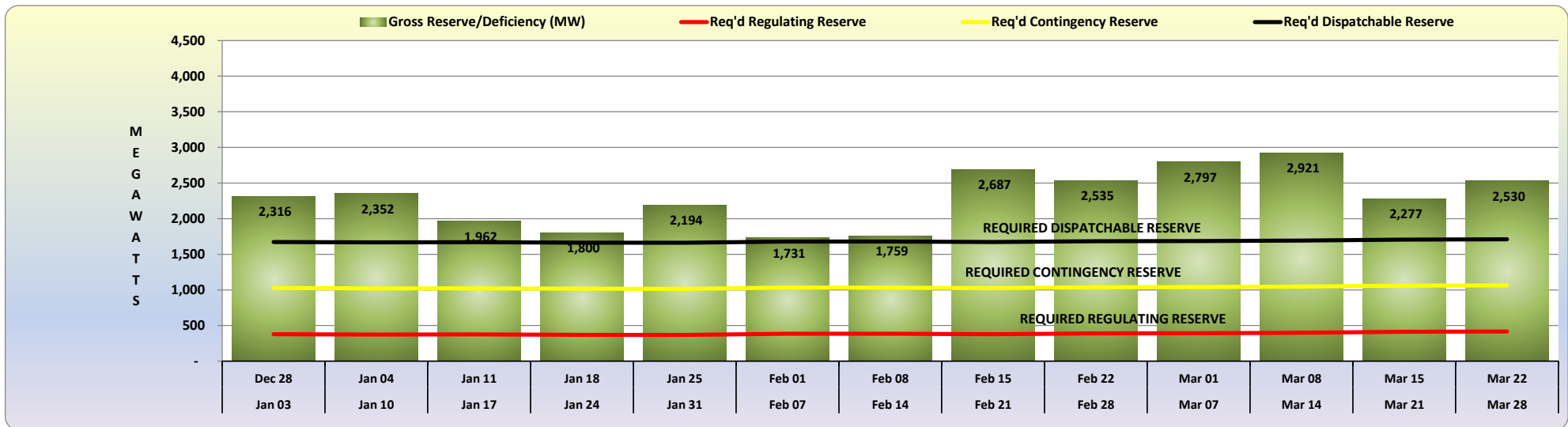


LUZON GRID 2019 1st Quarter Reserve Profile

REVISION 0

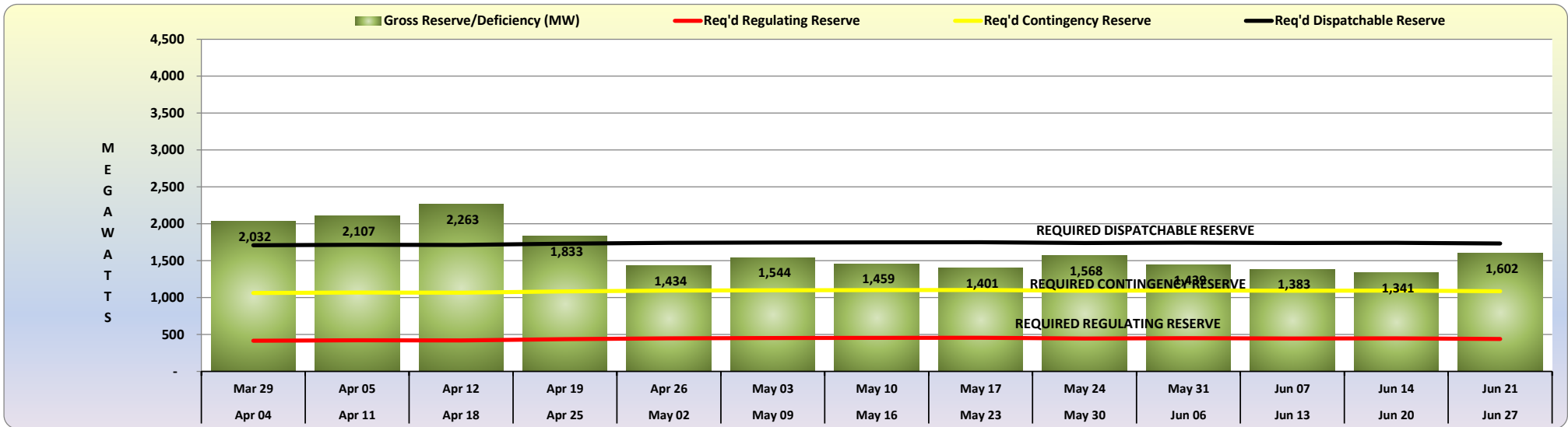


2019	1ST QUARTER												
	Dec 28	Jan 04	Jan 11	Jan 18	Jan 25	Feb 01	Feb 08	Feb 15	Feb 22	Mar 01	Mar 08	Mar 15	Mar 22
	Jan 03	Jan 10	Jan 17	Jan 24	Jan 31	Feb 07	Feb 14	Feb 21	Feb 28	Mar 07	Mar 14	Mar 21	Mar 28
Available Capacity (MW)	11,786	11,692	11,342	11,030	11,394	11,361	11,369	12,157	12,295	12,617	12,911	12,597	12,940
Thermal	-	-	-	-	-	-	-	-	-	-	150	150	150
Coal	4,312	4,218	4,218	3,762	4,200	4,422	4,842	5,493	5,493	5,643	5,643	5,641	5,641
Gas Turbine/Diesel	593	593	593	593	598	610	608	610	610	615	614	615	615
Combined Cycle/NatGas	3,830	3,830	3,523	3,690	3,740	3,740	3,740	3,740	3,740	3,740	3,830	3,566	3,830
Geothermal	465	465	465	465	465	465	423	423	423	404	344	344	344
HVDC	-	-	-	-	-	-	-	-	-	-	-	-	-
Wind Farm	189	189	141	174	167	223	107	45	70	255	106	113	146
Biomass	73	73	73	73	73	63	63	63	63	63	73	73	73
Solar	112	112	117	61	118	122	61	119	159	132	149	153	164
Hydro	2,212	2,212	2,212	2,212	2,032	1,715	1,525	1,664	1,737	1,765	2,002	1,942	1,977
System Load (MW)	9,470	9,340	9,380	9,230	9,200	9,630	9,610	9,470	9,760	9,820	9,990	10,320	10,410
Gross Reserve/Deficiency (MW)	2,316	2,352	1,962	1,800	2,194	1,731	1,759	2,687	2,535	2,797	2,921	2,277	2,530
Req'd Regulating Reserve	379	374	375	369	368	385	384	379	390	393	400	413	416
Req'd Contingency Reserve	647	647	647	647	647	647	647	647	647	647	647	647	647
Req'd Dispatchable Reserve	647	647	647	647	647	647	647	647	647	647	647	647	647

1. Peak Demand Forecast at 11,403 MW to occur in May 2019 based from the approved DOE Forecast
2. Preventive Maintenance of Power Plants considered.
3. Embedded Generators considered.

LUZON GRID 2019 2nd Quarter Reserve Profile

REVISION 0

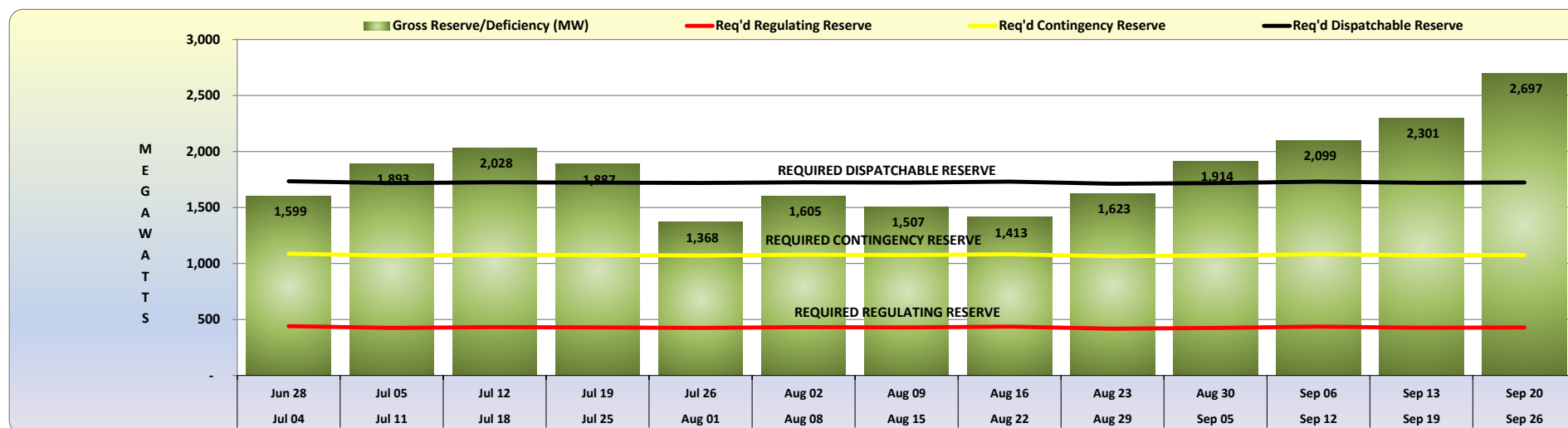


2019	2ND QUARTER												
	Mar 29	Apr 05	Apr 12	Apr 19	Apr 26	May 03	May 10	May 17	May 24	May 31	Jun 07	Jun 14	Jun 21
	Apr 04	Apr 11	Apr 18	Apr 25	May 02	May 09	May 16	May 23	May 30	Jun 06	Jun 13	Jun 20	Jun 27
Available Capacity (MW)	12,422	12,677	12,763	12,773	12,654	12,854	12,829	12,804	12,718	12,689	12,513	12,551	12,592
Thermal	150	150	150	150	150	150	150	150	150	150	150	150	150
Coal	5,259	5,559	5,559	5,681	5,682	6,064	6,064	6,064	6,064	6,064	6,064	6,064	5,914
Gas Turbine/Diesel	605	605	605	605	615	615	615	615	615	615	615	615	615
Combined Cycle/NatGas	3,830	3,830	3,830	3,830	3,830	3,830	3,830	3,830	3,830	3,830	3,740	3,740	3,740
Geothermal	411	492	492	504	504	504	504	504	504	465	465	459	459
HVDC	-	-	-	-	-	-	-	-	-	-	-	-	-
Wind Farm	115	28	84	89	11	27	34	42	22	9	46	58	20
Biomass	73	73	73	69	69	69	55	44	62	73	73	73	73
Solar	192	153	193	183	180	194	186	165	109	106	105	137	136
Hydro	1,787	1,787	1,777	1,663	1,613	1,400	1,390	1,390	1,362	1,377	1,255	1,255	1,485
System Load (MW)	10,390	10,570	10,500	10,940	11,220	11,310	11,370	11,403	11,150	11,250	11,130	11,210	10,990
Gross Reserve/Deficiency (MW)	2,032	2,107	2,263	1,833	1,434	1,544	1,459	1,401	1,568	1,439	1,383	1,341	1,602
Req'd Regulating Reserve	416	423	420	438	449	452	455	456	446	450	445	448	440
Req'd Contingency Reserve	647	647	647	647	647	647	647	647	647	647	647	647	647
Req'd Dispatchable Reserve	647	647	647	647	647	647	647	647	647	647	647	647	647

1. Peak Demand Forecast at 11,403 MW to occur in May 2019 based from the approved DOE Forecast
2. Preventive Maintenance of Power Plants considered.
3. Embedded Generators considered.

LUZON GRID 2019 3rd Quarter Reserve Profile

REVISION 0

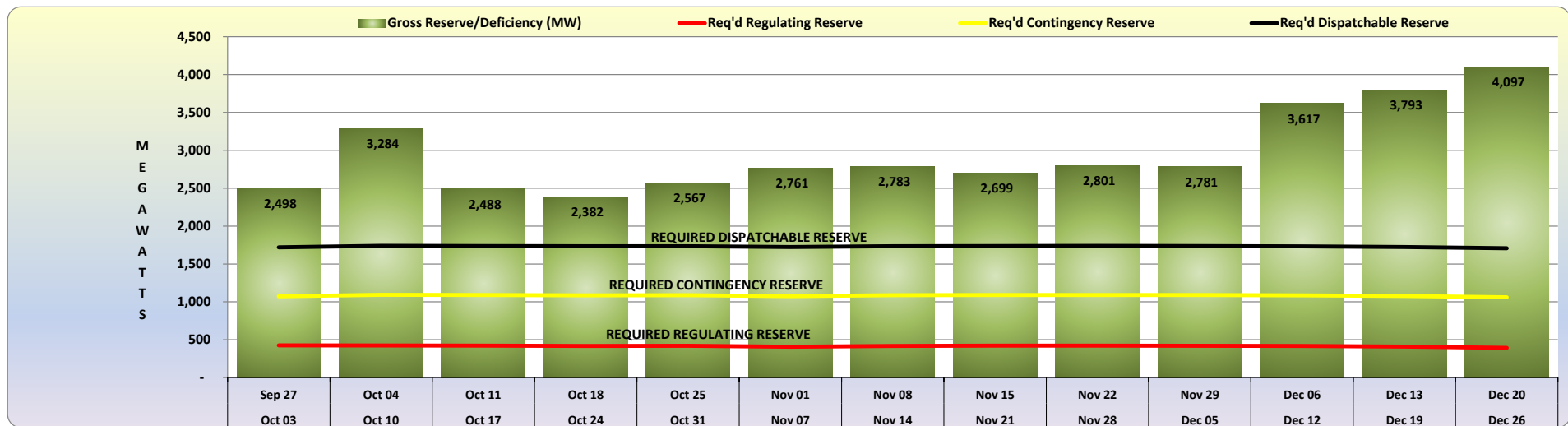


2019	3RD QUARTER												
	Jun 28	Jul 05	Jul 12	Jul 19	Jul 26	Aug 02	Aug 09	Aug 16	Aug 23	Aug 30	Sep 06	Sep 13	Sep 20
	Jul 04	Jul 11	Jul 18	Jul 25	Aug 01	Aug 08	Aug 15	Aug 22	Aug 29	Sep 05	Sep 12	Sep 19	Sep 26
Available Capacity (MW)	12,609	12,493	12,808	12,597	11,988	12,385	12,217	12,313	12,073	12,514	12,999	12,961	13,427
Thermal	150	150	150	150	150	150	150	150	150	150	150	150	150
Coal	5,782	5,782	5,782	5,782	5,482	5,864	6,001	6,001	6,001	5,851	5,864	5,864	6,364
Gas Turbine/Diesel	615	610	610	610	610	605	605	605	605	605	615	609	609
Combined Cycle/NatGas	3,740	3,468	3,640	3,390	3,140	3,140	2,868	3,140	2,975	3,530	3,830	3,740	3,740
Geothermal	459	459	459	459	459	465	465	463	463	463	463	465	465
HVDC	-	-	-	-	-	-	-	-	-	-	-	-	-
Wind Farm	10	9	12	40	24	160	155	90	50	117	27	12	15
Biomass	73	73	73	73	63	56	56	56	56	56	55	55	51
Solar	115	101	131	137	104	119	91	132	97	66	129	63	30
Hydro	1,665	1,842	1,952	1,956	1,956	1,826	1,826	1,676	1,676	1,676	1,866	2,003	2,003
System Load (MW)	11,010	10,600	10,780	10,710	10,620	10,780	10,710	10,900	10,450	10,600	10,900	10,660	10,730
Gross Reserve/Deficiency (MW)	1,599	1,893	2,028	1,887	1,368	1,605	1,507	1,413	1,623	1,914	2,099	2,301	2,697
Req'd Regulating Reserve	440	424	431	428	425	431	428	436	418	424	436	426	429
Req'd Contingency Reserve	647	647	647	647	647	647	647	647	647	647	647	647	647
Req'd Dispatchable Reserve	647	647	647	647	647	647	647	647	647	647	647	647	647

1. Peak Demand Forecast at 11,403 MW to occur in May 2019 based from the approved DOE Forecast
2. Preventive Maintenance of Power Plants considered.
3. Embedded Generators considered.

LUZON GRID 2019 4th Quarter Reserve Profile

REVISION 0



2019	4TH QUARTER												
	Sep 27	Oct 04	Oct 11	Oct 18	Oct 25	Nov 01	Nov 08	Nov 15	Nov 22	Nov 29	Dec 06	Dec 13	Dec 20
	Oct 03	Oct 10	Oct 17	Oct 24	Oct 31	Nov 07	Nov 14	Nov 21	Nov 28	Dec 05	Dec 12	Dec 19	Dec 26
Available Capacity (MW)	13,138	13,894	13,038	12,842	13,057	12,961	13,253	13,229	13,371	13,301	14,047	14,023	13,907
Thermal	150	150	150	150	150	-	-	-	-	-	150	150	-
Coal	6,514	7,182	7,182	6,535	6,191	6,201	6,201	6,201	6,201	6,051	6,395	6,395	6,395
Gas Turbine/Diesel	609	615	615	554	507	517	523	574	615	599	599	599	605
Combined Cycle/NatGas	3,230	3,230	2,440	2,840	3,265	3,475	3,740	3,740	3,740	3,740	3,830	3,830	3,830
Geothermal	427	427	427	427	427	427	427	465	465	465	465	465	465
HVDC	-	-	-	-	-	-	-	-	-	-	-	-	-
Wind Farm	14	120	51	134	146	180	182	215	174	231	232	215	214
Biomass	51	62	66	66	66	66	48	37	62	73	73	73	73
Solar	140	95	94	124	112	82	124	22	129	129	110	103	132
Hydro	2,003	2,013	2,013	2,013	2,193	2,013	2,008	1,975	1,985	2,013	2,193	2,193	2,193
System Load (MW)	10,640	10,610	10,550	10,460	10,490	10,200	10,470	10,530	10,570	10,520	10,430	10,230	9,810
Gross Reserve/Deficiency (MW)	2,498	3,284	2,488	2,382	2,567	2,761	2,783	2,699	2,801	2,781	3,617	3,793	4,097
Req'd Regulating Reserve	426	424	422	418	420	408	419	421	423	421	417	409	392
Req'd Contingency Reserve	647	668	668	668	668	668	668	668	668	668	668	668	668
Req'd Dispatchable Reserve	647	647	647	647	647	647	647	647	647	647	647	647	647

1. Peak Demand Forecast at 11,403 MW to occur in May 2019 based from the approved DOE Forecast
2. Preventive Maintenance of Power Plants considered.
3. Embedded Generators considered.