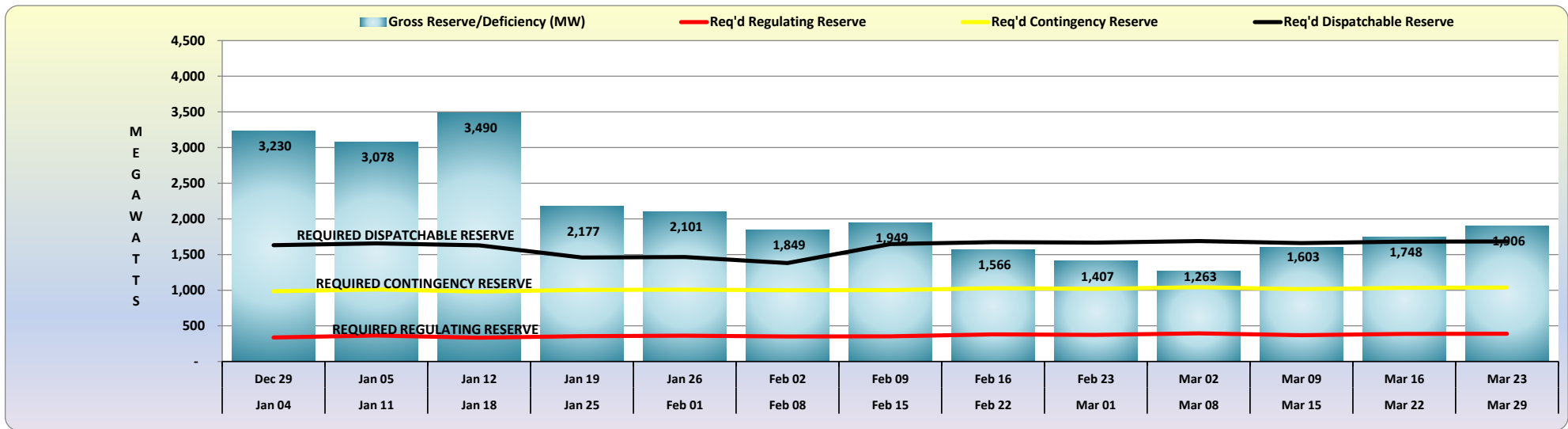


# LUZON GRID (Actual Data) 2018 1st Quarter Reserve Profile

REVISION 1

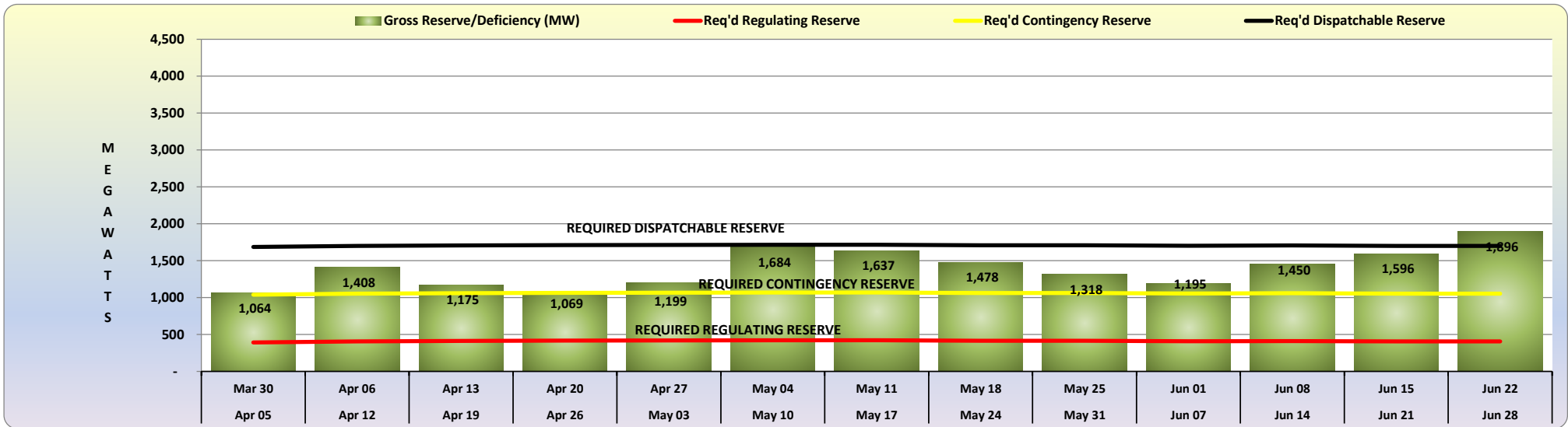


2018	1ST QUARTER												
	Dec 29	Jan 05	Jan 12	Jan 19	Jan 26	Feb 02	Feb 09	Feb 16	Feb 23	Mar 02	Mar 09	Mar 16	Mar 23
	Jan 04	Jan 11	Jan 18	Jan 25	Feb 01	Feb 08	Feb 15	Feb 22	Mar 01	Mar 08	Mar 15	Mar 22	Mar 29
<b>Available Capacity (MW)</b>	<b>11,682</b>	<b>12,161</b>	<b>11,843</b>	<b>11,074</b>	<b>11,138</b>	<b>10,638</b>	<b>10,790</b>	<b>11,084</b>	<b>10,742</b>	<b>11,134</b>	<b>10,799</b>	<b>11,412</b>	<b>11,656</b>
Thermal	-	-	150	-	-	-	-	130	130	130	130	130	-
Coal	4,611	4,729	4,672	4,252	4,272	3,966	3,711	3,851	3,208	3,851	3,580	4,245	4,736
Gas Turbine/Diesel	567	558	566	562	561	566	549	543	538	528	534	578	625
Combined Cycle/NatGas	3,817	3,747	3,430	3,040	3,121	3,176	3,677	3,571	3,723	3,625	3,806	3,747	3,830
Geothermal	465	474	449	464	459	461	461	462	460	378	410	420	404
HVDC	-	-	-	-	-	-	-	-	-	-	-	-	-
Wind Farm	106	198	281	273	266	224	29	134	276	220	136	70	-
Biomass	63	63	63	63	64	64	64	64	64	57	64	74	70
Solar	163	158	-	179	161	-	154	199	191	202	214	186	-
Hydro	1,890	2,234	2,232	2,241	2,234	2,181	2,145	2,130	2,152	2,143	1,925	1,962	1,991
<b>System Load (MW)</b>	<b>8,452</b>	<b>9,083</b>	<b>8,353</b>	<b>8,897</b>	<b>9,037</b>	<b>8,789</b>	<b>8,841</b>	<b>9,518</b>	<b>9,335</b>	<b>9,871</b>	<b>9,196</b>	<b>9,664</b>	<b>9,750</b>
<b>Gross Reserve/Deficiency (MW)</b>	<b>3,230</b>	<b>3,078</b>	<b>3,490</b>	<b>2,177</b>	<b>2,101</b>	<b>1,849</b>	<b>1,949</b>	<b>1,566</b>	<b>1,407</b>	<b>1,263</b>	<b>1,603</b>	<b>1,748</b>	<b>1,906</b>
<b>Req'd Regulating Reserve</b>	<b>338</b>	<b>363</b>	<b>334</b>	<b>356</b>	<b>361</b>	<b>352</b>	<b>354</b>	<b>381</b>	<b>373</b>	<b>395</b>	<b>368</b>	<b>387</b>	<b>390</b>
<b>Req'd Contingency Reserve</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>
<b>Req'd Dispatchable Reserve</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>456</b>	<b>456</b>	<b>382</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>

1. Peak Demand Forecast at 10,561 MW to occur in May 2018 based from the approved DOE Forecast for the Power Development Plan 2016 – 2040.
2. Preventive Maintenance of Power Plants considered.
3. Embedded Generators considered.

# LUZON GRID 2018 2nd Quarter Reserve Profile

REVISION 1

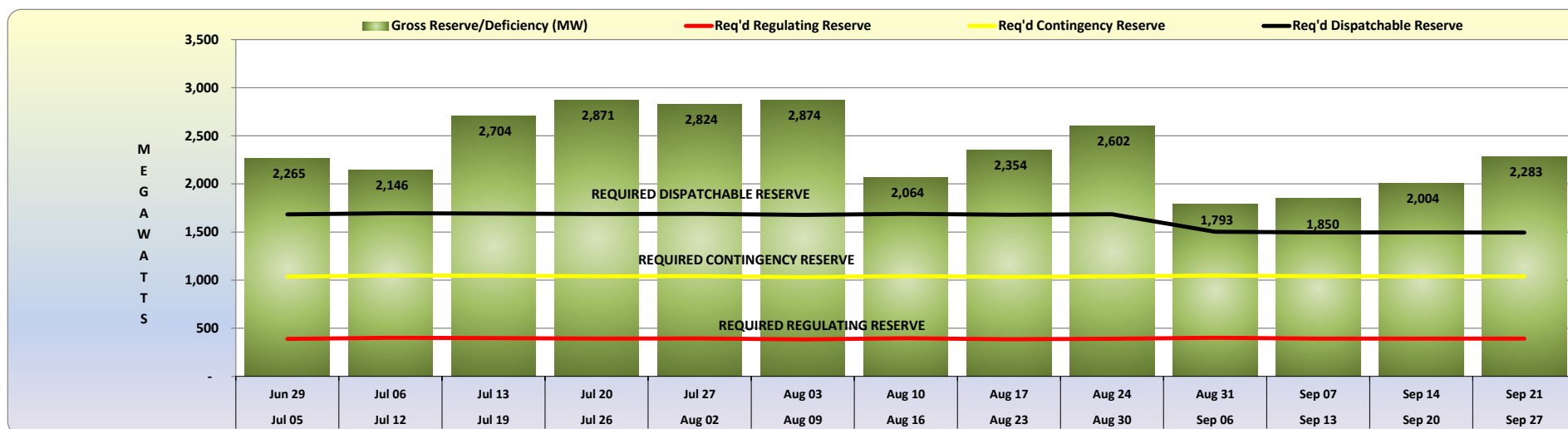


2018	2ND QUARTER													
	Mar 30	Apr 06	Apr 13	Apr 20	Apr 27	May 04	May 11	May 18	May 25	Jun 01	Jun 08	Jun 15	Jun 22	
	Apr 05	Apr 12	Apr 19	Apr 26	May 03	May 10	May 17	May 24	May 31	Jun 07	Jun 14	Jun 21	Jun 28	
<b>Available Capacity (MW)</b>	<b>10,874</b>	<b>11,558</b>	<b>11,505</b>	<b>11,499</b>	<b>11,689</b>	<b>12,214</b>	<b>12,197</b>	<b>11,848</b>	<b>11,718</b>	<b>11,435</b>	<b>11,750</b>	<b>11,736</b>	<b>12,056</b>	
Thermal	-	-	-	-	-	-	-	-	-	-	-	-	-	
Coal	4,669	5,389	5,388	5,464	5,464	5,846	5,846	5,846	5,846	5,464	5,464	5,464	5,464	
Gas Turbine/Diesel	619	619	608	621	630	630	630	630	630	630	630	630	630	
Combined Cycle/NatGas	3,230	3,230	3,230	3,230	3,530	3,830	3,830	3,830	3,830	3,830	3,830	3,830	3,830	
Geothermal	473	460	460	460	460	460	453	453	453	424	424	424	424	
HVDC	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wind Farm	-	-	-	-	-	-	-	-	-	-	-	-	-	
Biomass	70	70	74	74	74	56	56	63	63	74	74	74	74	
Solar	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hydro	1,813	1,790	1,745	1,650	1,531	1,392	1,382	1,026	896	1,013	1,328	1,314	1,634	
<b>System Load (MW)</b>	<b>9,810</b>	<b>10,150</b>	<b>10,330</b>	<b>10,430</b>	<b>10,490</b>	<b>10,530</b>	<b>10,560</b>	<b>10,370</b>	<b>10,400</b>	<b>10,240</b>	<b>10,300</b>	<b>10,140</b>	<b>10,160</b>	
<b>Gross Reserve/Deficiency (MW)</b>	<b>1,064</b>	<b>1,408</b>	<b>1,175</b>	<b>1,069</b>	<b>1,199</b>	<b>1,684</b>	<b>1,637</b>	<b>1,478</b>	<b>1,318</b>	<b>1,195</b>	<b>1,450</b>	<b>1,596</b>	<b>1,896</b>	
<b>Req'd Regulating Reserve</b>	<b>392</b>	<b>406</b>	<b>413</b>	<b>417</b>	<b>420</b>	<b>421</b>	<b>422</b>	<b>415</b>	<b>416</b>	<b>410</b>	<b>412</b>	<b>406</b>	<b>406</b>	
<b>Req'd Contingency Reserve</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	
<b>Req'd Dispatchable Reserve</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	<b>647</b>	

1. Peak Demand Forecast at 10,561 MW to occur in May 2018 based from the approved DOE Forecast for the Power Development Plan 2016 – 2040.
2. Preventive Maintenance of Power Plants considered.
3. Embedded Generators considered.

# LUZON GRID 2018 3rd Quarter Reserve Profile

REVISION 1

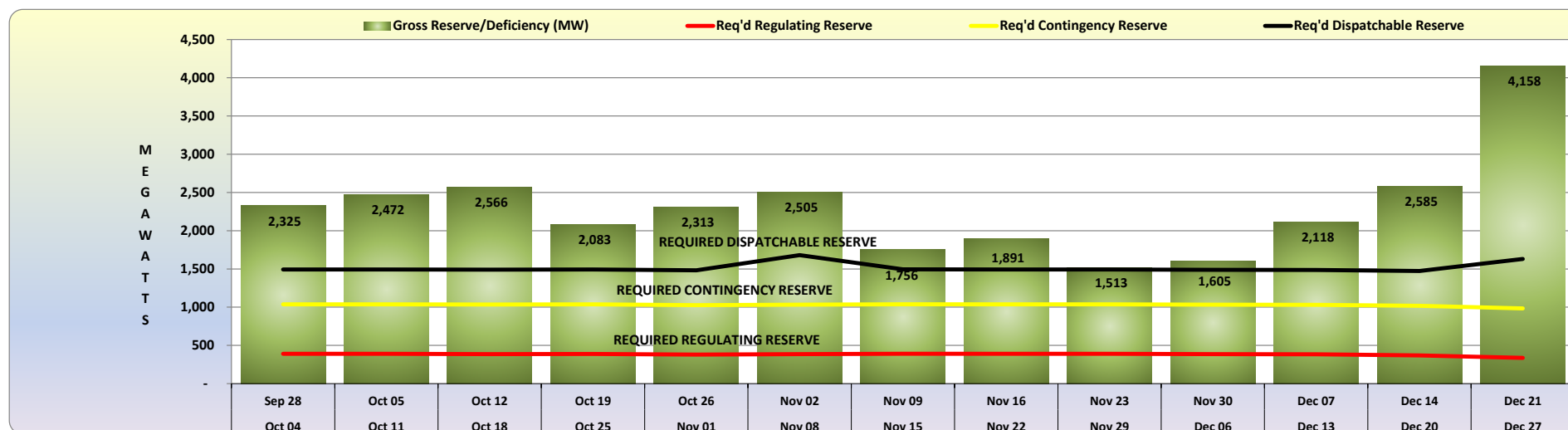


2018	3RD QUARTER													
	Jun 29	Jul 06	Jul 13	Jul 20	Jul 27	Aug 03	Aug 10	Aug 17	Aug 24	Aug 31	Sep 07	Sep 14	Sep 21	
	Jul 05	Jul 12	Jul 19	Jul 26	Aug 02	Aug 09	Aug 16	Aug 23	Aug 30	Sep 06	Sep 13	Sep 20	Sep 27	
<b>Available Capacity (MW)</b>	12,005	12,166	12,654	12,701	12,694	12,484	11,944	12,004	12,382	11,803	11,680	11,814	12,073	
Thermal	-	-	-	-	-	-	-	-	-	-	-	-	-	
Coal	5,341	5,723	5,723	5,846	5,846	5,724	5,424	5,424	5,546	4,899	5,049	5,049	5,049	
Gas Turbine/Diesel	630	630	630	630	630	630	630	630	630	630	630	624	624	
Combined Cycle/NatGas	3,740	3,476	3,830	3,740	3,740	3,690	3,424	3,484	3,740	3,740	3,478	3,477	3,740	
Geothermal	424	447	447	447	447	409	435	435	435	473	473	473	473	
HVDC	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wind Farm	-	-	-	-	-	-	-	-	-	-	-	-	-	
Biomass	74	74	74	74	67	67	67	67	67	67	56	56	52	
Solar	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hydro	1,796	1,816	1,950	1,964	1,964	1,964	1,964	1,964	1,964	1,994	1,994	2,135	2,135	
<b>System Load (MW)</b>	9,740	10,020	9,950	9,830	9,870	9,610	9,880	9,650	9,780	10,010	9,830	9,810	9,790	
<b>Gross Reserve/Deficiency (MW)</b>	2,265	2,146	2,704	2,871	2,824	2,874	2,064	2,354	2,602	1,793	1,850	2,004	2,283	
<b>Req'd Regulating Reserve</b>	390	401	398	393	395	384	395	386	391	400	393	392	392	
<b>Req'd Contingency Reserve</b>	647	647	647	647	647	647	647	647	647	647	647	647	647	
<b>Req'd Dispatchable Reserve</b>	647	647	647	647	647	647	647	647	647	456	456	456	456	

1. Peak Demand Forecast at 10,561 MW to occur in May 2018 based from the approved DOE Forecast for the Power Development Plan 2016 – 2040.
2. Preventive Maintenance of Power Plants considered.
3. Embedded Generators considered.

# LUZON GRID 2018 4th Quarter Reserve Profile

REVISION 1



2018	4TH QUARTER													
	Sep 28	Oct 05	Oct 12	Oct 19	Oct 26	Nov 02	Nov 09	Nov 16	Nov 23	Nov 30	Dec 07	Dec 14	Dec 21	
	Oct 04	Oct 11	Oct 18	Oct 25	Nov 01	Nov 08	Nov 15	Nov 22	Nov 29	Dec 06	Dec 13	Dec 20	Dec 27	
<b>Available Capacity (MW)</b>	12,065	12,232	12,236	11,803	11,803	12,165	11,526	11,651	11,243	11,255	11,698	11,835	12,578	
Thermal	-	-	-	-	-	-	-	-	-	-	-	-	-	
Coal	5,049	5,199	5,199	5,186	5,186	5,413	4,766	4,779	4,519	4,519	4,789	4,789	5,436	
Gas Turbine/Diesel	624	630	630	630	630	630	630	630	630	624	624	624	630	
Combined Cycle/NatGas	3,740	3,740	3,740	3,320	3,320	3,830	3,830	3,830	3,830	3,830	3,740	3,740	3,830	
Geothermal	473	473	473	473	473	415	415	415	415	415	473	473	473	
HVDC	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wind Farm	-	-	-	-	-	-	-	-	-	-	-	-	-	
Biomass	52	63	67	67	67	67	67	56	45	63	74	74	74	
Solar	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hydro	2,127	2,127	2,127	2,127	2,127	1,810	1,818	1,941	1,804	1,804	1,998	2,135	2,135	
<b>System Load (MW)</b>	9,740	9,760	9,670	9,720	9,490	9,660	9,770	9,760	9,730	9,650	9,580	9,250	8,420	
<b>Gross Reserve/Deficiency (MW)</b>	2,325	2,472	2,566	2,083	2,313	2,505	1,756	1,891	1,513	1,605	2,118	2,585	4,158	
Req'd Regulating Reserve	390	390	387	389	380	386	391	390	389	386	383	370	337	
Req'd Contingency Reserve	647	647	647	647	647	647	647	647	647	647	647	647	647	
Req'd Dispatchable Reserve	456	456	456	456	456	647	456	456	456	456	456	456	647	

1. Peak Demand Forecast at 10,561 MW to occur in May 2018 based from the approved DOE Forecast for the Power Development Plan 2016 – 2040.
2. Preventive Maintenance of Power Plants considered.
3. Embedded Generators considered.