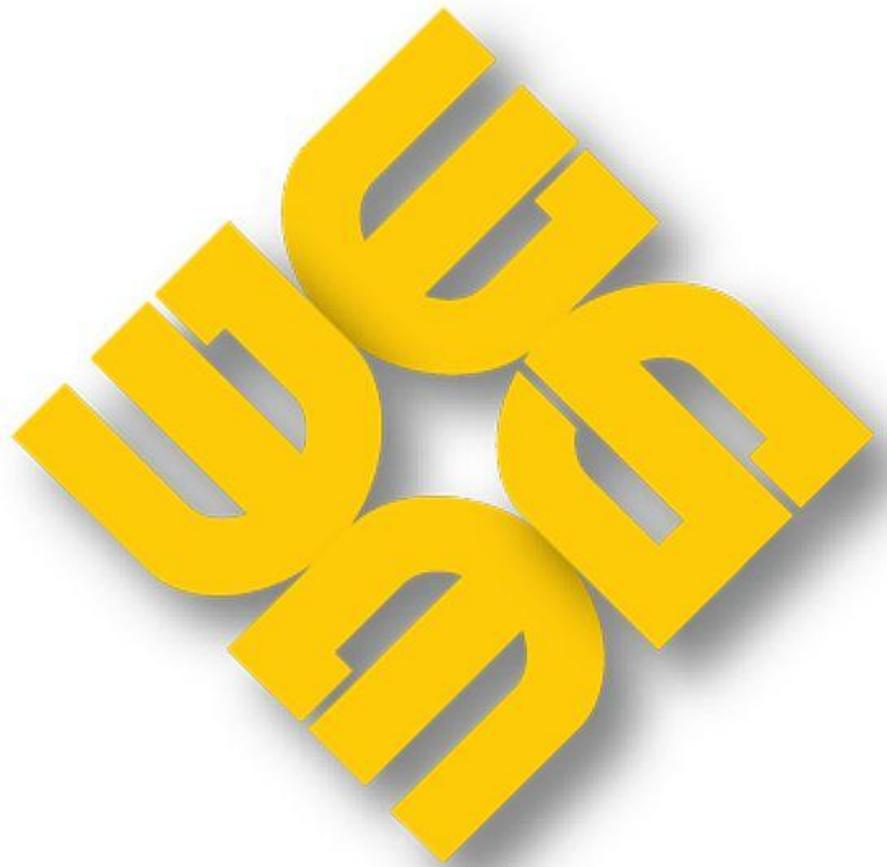


MAG-MMAR-2019-04

MONTHLY MARKET ASSESSMENT REPORT

For the Billing Period 26 March to 25 April 2019



**PHILIPPINE
ELECTRICITY
MARKET
CORPORATION**

**MARKET ASSESSMENT GROUP
(MAG)**

Monthly Market Assessment Report for April 2019 Billing Month

1. Summary

The April billing month was marked by a growing level of demand as temperatures continue to rise on the second month of the summer season. Meanwhile, effective supply decreased due to increase in the capacity not offered. Driven by the increase in demand, some trading intervals observed narrow supply margin which also led to high prices during the period.

In particular, yellow alerts were issued by NGCP-SO from 2 to 3 April. Moreover, from 10 to 15 April, more frequent issuances of yellow and red alerts were noted as well as SO-initiated market intervention. The sustained high prices during the period resulted in the imposition of the secondary price cap which was last imposed in September 2014.

The secondary price cap was imposed during two events of sustained high prices during the billing month. From 10 to 15 April, simultaneous plant outages drove high market prices that affected a total of 44 trading intervals in Luzon and 60 trading intervals in Visayas. On the other hand, the 6.1-magnitude earthquake on 22 April resulted in the outage of several plants in Luzon, and triggered the tight supply margin from 24 to 25 April. This event affected a total of 44 trading intervals in Luzon and 33 trading intervals in Visayas. This led to tight supply margin and high prices towards the end of the billing month triggering the imposition of the secondary cap.

2. Market Outcomes

2.1. Capacity Profile

At the start of the April billing month, the WESM registered capacity increased at 19,062 MW. Starting 13 April, this figure increased up to 19,876 by the end of the month due to the registration of a 213-MW oil-based facility (units 1 to 4) of Therma Mobile, Inc.

Of the said total WESM registered capacity, only about 59 percent or an average of 11,752 MW was offered in the market.

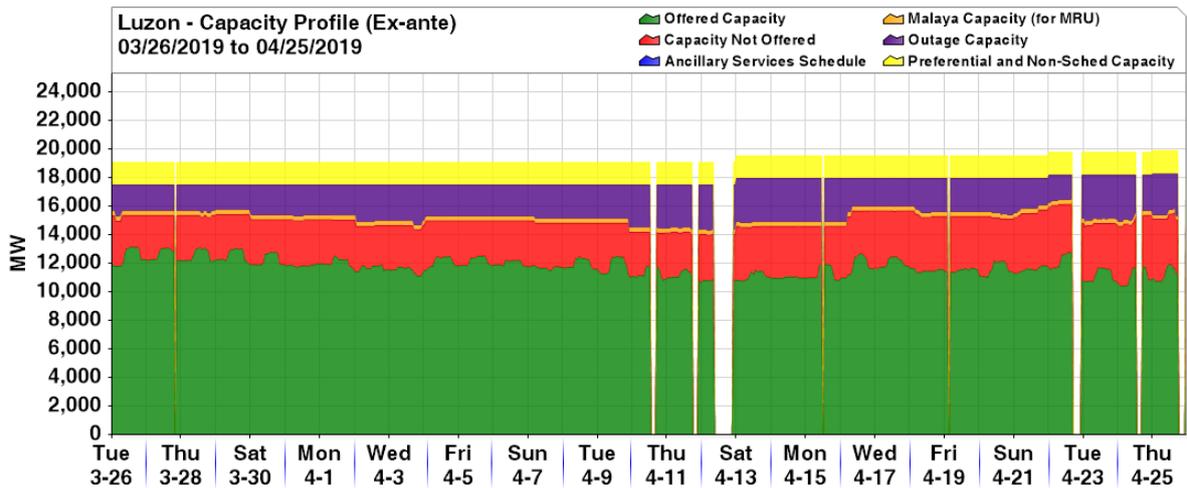


Figure 1. Capacity Profile

	April 2019		March 2019	
	Average (in MW)	% of RegCap	Average (in MW)	% of RegCap
Preferential and Non-Sched Capacity	1,560	8%	1,558	8%
Outage Capacity	2,416	12%	2,663	14%
Malaya Capacity (for MRU)	300	2%	300	1%
Capacity Not Offered	3,258	16%	2,496	13%
Offered Capacity	11,752	59%	11,979	63%
Registered Capacity (by the end of the billing month)	19,876		19,062	

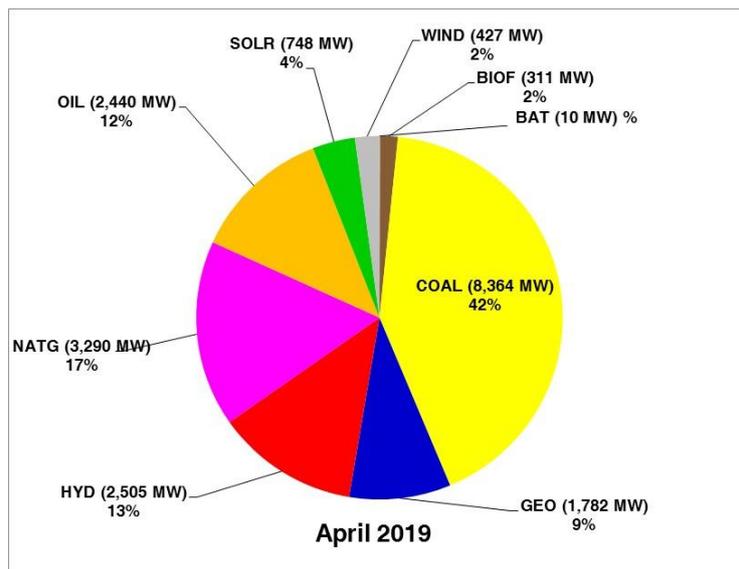


Figure 2. Registered Capacity Mix, April 2019

2.2. Outage Capacity

About 12 percent of the total registered capacity or an average of 2,446 MW were on outage. Bulk of which, at 45 percent, were related to forced outages, averaging at 1,078 MW. Planned outages, averaging at 977 MW, accounted for 41 percent of the total outage capacity.

For April 2 to 3, Pagbilao 3 and San Lorenzo 2 went on outage on top of the existing outages of Pagbilao 1, Calaca 1, Masinloc 2 and SLTEC 1. On April 7, SLPGC 2 went on outage. Meanwhile, Sual 1 also became unavailable on April 9 and SMC 2 on April 11. These outages were all on top of the outages of Calaca 1, Pagbilao 1, SLTEC 1 and Pagbilao3.

On April 22, when the earthquake struck Luzon at 5:11 PM, Mariveles 1 and 2, SMC Limay units 1 to 4, Limay CCGT units 1 to 8, Anda, and Bacman 1 went on forced outages. On April 24, SLTEC 2, Limay 4 and Avion 2 were likewise unavailable while Pagbilao 1, SLPGC 1 and 2, and SLTEC 1 and 2 went on outage on April 25. On April 24, SLTEC 2, Limay 4 and Avion 2 were likewise unavailable while Pagbilao 1, SLPGC 1 and 2, and SLTEC 1 and 2 went on outage on April 25.

On the other hand, based on type of resource, coal plants contributed 60 percent of the total outage capacity this month.

Lower level of capacity on outage was recorded this month at 2,416MW compared to an average of 2,663 MW in March.

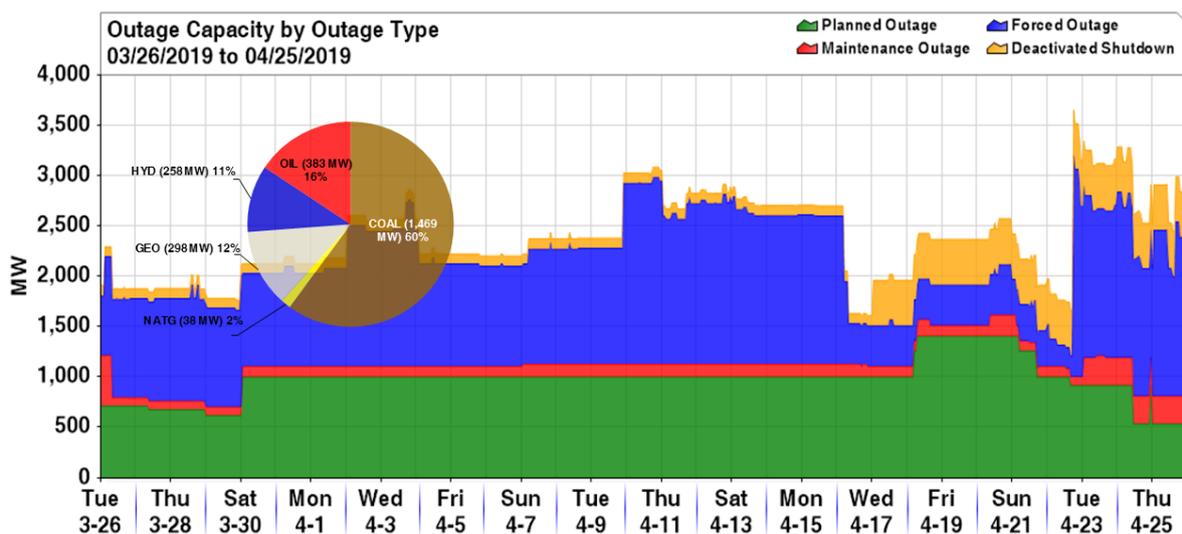


Figure 3. Outage Capacity by Outage Category

2.3. Supply and Demand

With the unavailability of power plants that went on simultaneous outages, the average effective supply level demonstrated a 0.9 percent decrease to 12,363 MW on the average from 12,481 MW in the previous month with the increase in the capacity not offered for the April billing month. On the other hand, demand went up by 5 percent at 10,294 MW on the average as expected due to hotter temperatures during the summer season. It can be noted as well a decrease in the demand from 16 to 21 April 2019 at an average of 10,467 MW when compared to the previous week with 11,237 MW and the following week of 11,704 MW due to observance of holy week.

Meanwhile, demand plus reserve schedule increased to an average of 11,205 MW, a 1.05 percent higher from 9,801 MW in the previous month. Driven by the increase in demand, supply margin tightened by 29.5 percent at an average of 1,159 MW from 1,644 MW in March.

During the April billing month, it was also noted that series of Market Interventions were initiated by the System Operator due to generation deficiency affecting 16 intervals, 19 intervals due to threat to system security/emergency, and 5 intervals due to force majeure events in Luzon and Visayas. Likewise, the Market Operator initiated MI events on 27 March (2100H) due to database software error, April 15 (1300H) due to linear programming and April 19 (0400H) due to inconsistent outage schedule.

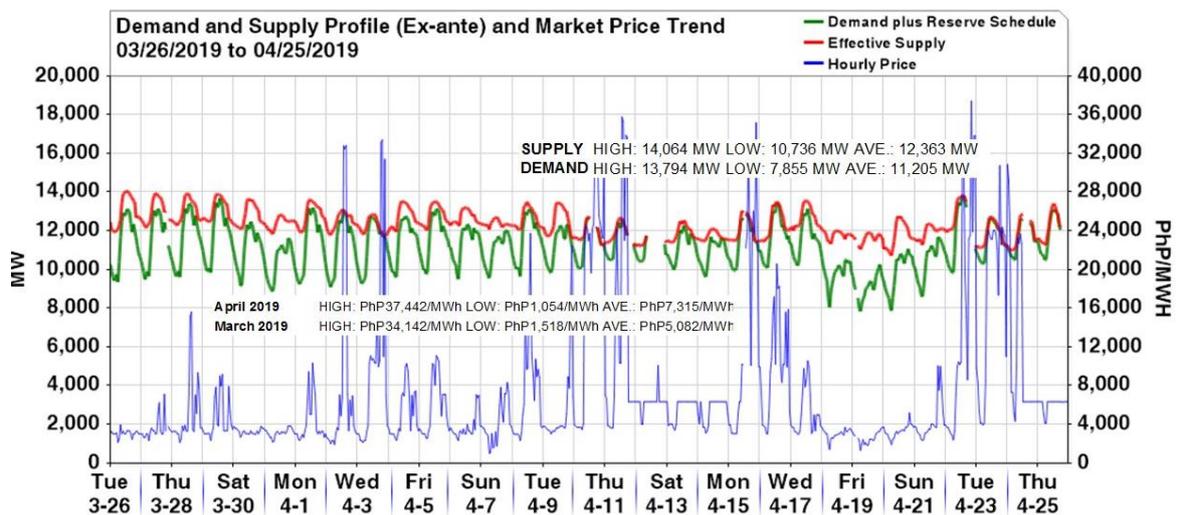


Figure 4. Demand and Supply Profile vs. Market Prices

2.4. Market Prices

Following the tighter supply margin this April billing month, average market price increased by 43.9 percent at PhP7,315/MWh compared to PhP5,082/MWh in March.

The rolling average GWAP breached the PhP9,000/MWh multiple times which led to the imposition of the secondary cap at PhP6,245/MWh during the period 10 to 15 April and 21 to 25 April.

3. Structural Competition Indices

3.1. Pivotal Plants

The market RSI fell below the 100-percent mark which indicates the presence of pivotal supplier for 67.7 percent of the time. This was higher than previous month's 40.5 percent following the tighter supply margin this month. Most

frequent pivotal suppliers during the billing month were Ilijan NGPP, Sual CFTPP, and Sta. Rita NGPP.

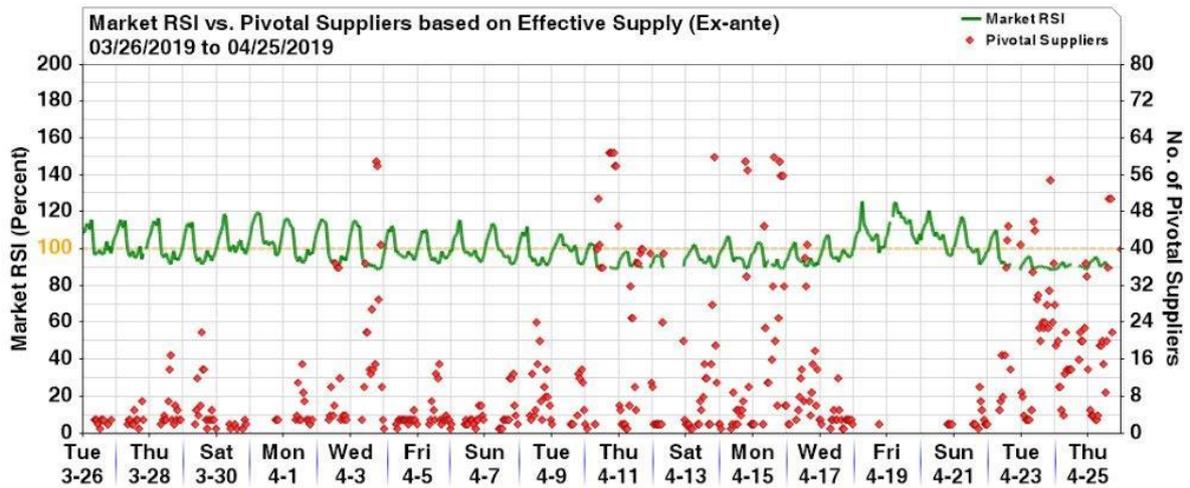


Figure 5. Market RSI vs. Pivotal Suppliers

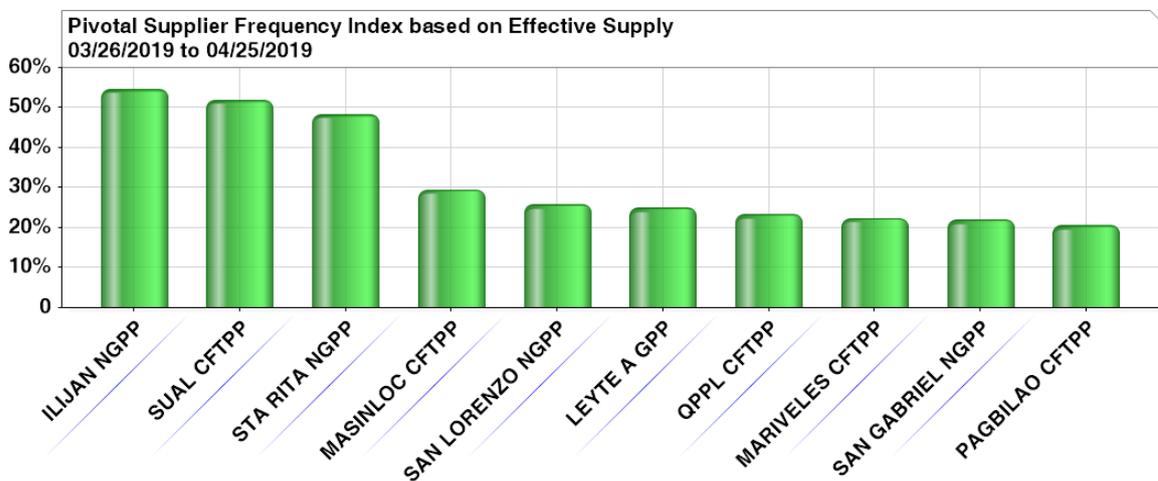


Figure 6. Top Pivotal Plants

3.2. Market Concentration

San Miguel Corporation (SMC), Aboitiz Power (AP), First Gen Corporation (FGC) and Power Sector Asset and Liabilities Management (PSALM) continued to dominate the market. Their combined market share comprised 70.1 percent of the total registered capacity in the WESM. With SMC holding the top spot at 24.8 percent followed by AP (19.5 percent), FGC (14.8 percent) and PSALM (11.0 percent).

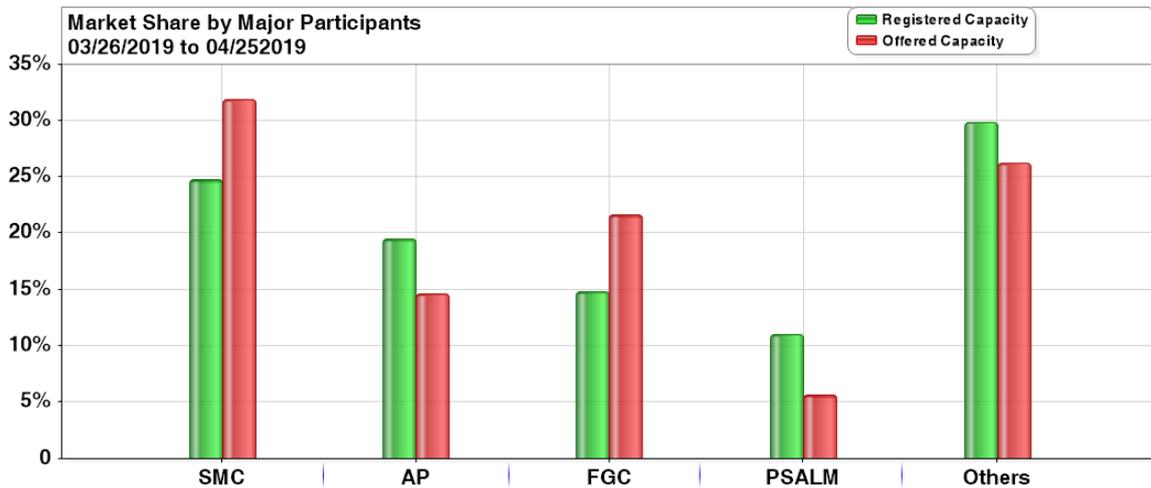


Figure 7. Market Share

With the unavailability of some plants, the market shares of SMC and FGC based on offered capacity increased to 31.9 percent and 21.6 percent, respectively. AP held a market share of 14.6 percent. Accordingly, the Herfindahl-Hirschman Index (HHI) calculated based on offered capacity by major participants' grouping indicated a concentrated market for 68 percent of the time and moderately concentrated market for 26 percent. The remaining 5 percent of the trading intervals were affected by the declaration of Market Intervention events initiated by the Market Operator and System Operator.

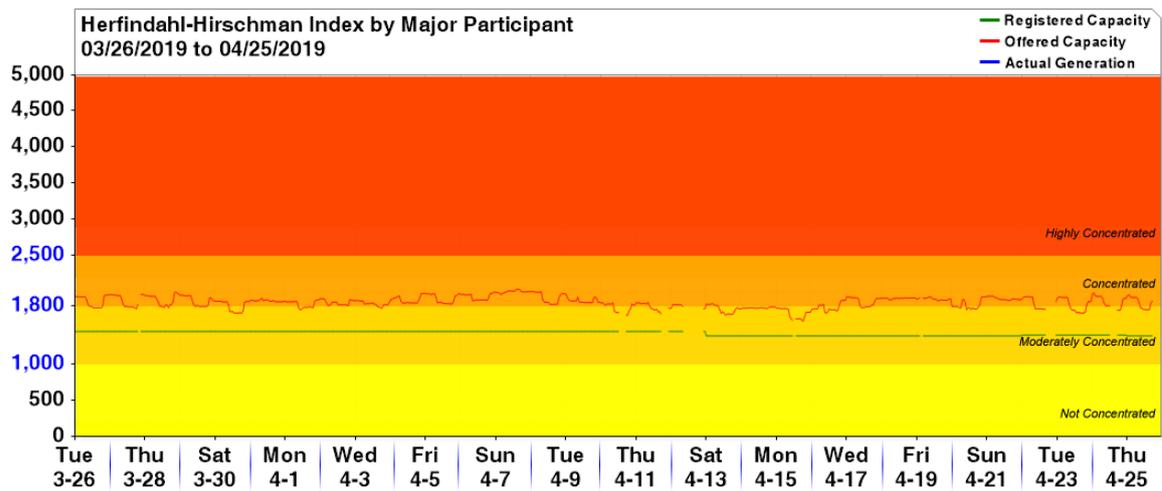


Figure 8. Hourly HHI based on Major Participant Grouping

List of Major Plant Outages

Region	Plant Type	Plant / Unit Name	Capacity (MW)	Date Out	Date In	Duration	Outage Type	Remarks
LUZON	GEO	Tiwi 3	43.7	10/23/2005 13:26			Deactivated Shutdown	Tiwi 3 decommissioned since May 26 2009
LUZON	GEO	Makban 6	55	04/11/2013 22:44			Deactivated Shutdown	Conducted gas compressor test
VISAYAS	GEO	PGPP2 Unit 4	20	06/27/2014 6:07			Forced Outage	Steam being utilized by Nasulo plant
LUZON	OIL	Malaya 2	350	05/19/2018 13:01			Deactivated Shutdown	Burnt air heater 2A. RECLASSIFIED FROM FORCE. OMC OUTAGE
LUZON	OIL	Malaya 2	350	05/19/2018 13:01			Forced Outage	Burn air heater 2A
VISAYAS	GEO	Upper Mahiao 2	32	09/03/2018 6:01			Forced Outage	Tripped
LUZON	OIL	SLPGC 4	25	11/22/2018 11:56			Maintenance Outage	On extended maintenance shutdown until 24 April 2019
LUZON	GEO	Tiwi 1	59	11/29/2018 13:31			Maintenance Outage	Maintenance Outage
LUZON	COAL	Calaca 1	300	12/30/2018 22:38			Planned Outage	APMT until 25 June 2019 (GOMP)
LUZON	GEO	Makban 10	20	01/07/2019 23:40	03/29/2019 20:32	81	Forced Outage	On reserve shutdown pending availability of steam supply (steam optimization)
LUZON	GEO	Makban 5	55	02/08/2019 16:08			Forced Outage	Low Steam Supply. Divert Steam Supply to unit 3
LUZON	GEO	Tiwi 6	57	02/09/2019 7:01	03/28/2019 23:32	48	Planned Outage	Turbine generator overhauling until 29 March 2019
LUZON	HYD	Magat 1	95	03/10/2019 6:01			Planned Outage	Annual preventive maintenance and testing (GOMP)
LUZON	HYD	San Roque 2	145	03/11/2019 15:01			Planned Outage	Planned outage until September 11 2019
VISAYAS	BIOF	SCBE	8.3	03/20/2019 2:37	03/27/2019 9:43	7	Forced Outage	Auto-tripped due to internal problem
LUZON	COAL	SLTEC 1	121	03/20/2019 20:30	04/13/2019 2:03	23	Forced Outage	Boiler Tube Leak
LUZON	NATG	San Gabriel	420	03/22/2019 4:30	03/26/2019 7:24	4	Maintenance Outage	Maintenance outage until 27 March 2019
VISAYAS	GEO	Leyte 1	35	03/24/2019 0:29	03/27/2019 8:19	3	Planned Outage	Annual PMS of TGPP unit 1. up to 29 March 2019
VISAYAS	COAL	CEDC 1	82	03/25/2019 0:33	04/22/2019 15:23	29	Planned Outage	APMS
VISAYAS	BIOF	FFHC	13	03/25/2019 4:57	03/26/2019 10:38	1	Maintenance Outage	Offline due to weekly maintenance
LUZON	COAL	Pagbilao 1	382	03/26/2019 2:36	03/30/2019 0:00	4	Forced Outage	Boiler Tube Leak.
VISAYAS	OIL	Bohol 1	4	03/26/2019 10:43	03/26/2019 11:44	0	Forced Outage	Affected by the tripping of BDPP-SIPC Transformer 1.
VISAYAS	OIL	Bohol 2	4	03/26/2019 10:43	03/26/2019 11:46	0	Forced Outage	Affected by the tripping of BDPP-SIPC Transformer 1.
LUZON	GEO	Bacman 3	20	03/26/2019 15:17	03/26/2019 16:02	0	Forced Outage	Tripped due to condenser level low
VISAYAS	OIL	Bohol 1	4	03/26/2019 19:31	03/28/2019 17:28	2	Forced Outage	Unusual sound of turbocharger
VISAYAS	BIOF	HPCO	3	03/27/2019 7:52	03/27/2019 11:38	0	Maintenance Outage	Offline due to repair of their connection asset D5 at line side in Hacienda San Diego4.
VISAYAS	GEO	Leyte 3	36	03/27/2019 12:10	03/29/2019 0:10	2	Forced Outage	Economic shutdown due to steam supply deficiency
VISAYAS	SOLR	Islasol 3	40.5	03/27/2019 16:15	03/27/2019 17:23	0	Forced Outage	Isolated. Affected by NONECO maintenance activities
VISAYAS	BIOF	FFHC	13	03/28/2019 13:48	03/28/2019 14:42	0	Forced Outage	Affected by grid disturbance
VISAYAS	BIOF	HPCO	3	03/28/2019 13:48	03/28/2019 14:42	0	Forced Outage	Affected by grid disturbance
VISAYAS	COAL	PALM 1	135	03/28/2019 13:48	03/28/2019 15:45	0	Forced Outage	Tripped
VISAYAS	COAL	PALM 1	135	03/28/2019 17:19	03/28/2019 19:56	0	Forced Outage	Offline
VISAYAS	BIOF	SCBE	8.3	03/29/2019 15:50			Forced Outage	Due to internal problem
LUZON	COAL	Masinloc 2	344	03/29/2019 23:50	04/04/2019 1:15	5	Forced Outage	Boiler slagging trouble
LUZON	COAL	Pagbilao 1	382	03/30/2019 0:01	04/24/2019 10:45	25	Planned Outage	Maintenance Outage until 28 April 2019 2400H
VISAYAS	GEO	PGPP2 Unit 1	20	03/30/2019 0:04	04/21/2019 11:03	22	Maintenance Outage	Offline due to scheduled maintenance activities
VISAYAS	GEO	Malibog 3	72	03/31/2019 5:34	03/31/2019 12:33	0	Forced Outage	Under assessment
VISAYAS	BIOF	URC 2	40	04/01/2019 7:44	04/01/2019 8:01	0	Forced Outage	Emergency offline due to boiler problem
LUZON	GEO	Tiwi 6	57	04/01/2019 8:32	04/02/2019 13:47	1	Forced Outage	High turbine vibration
VISAYAS	BIOF	HPCO	3	04/01/2019 10:50	04/01/2019 22:28	0	Maintenance Outage	Offline due to weekly maintenance
VISAYAS	BIOF	URC 1	40	04/01/2019 11:07	04/01/2019 19:02	0	Forced Outage	Emergency offline due to boiler problem
LUZON	COAL	Pagbilao 3	420	04/02/2019 0:59	04/16/2019 7:48	14	Forced Outage	Boiler slagging
LUZON	GEO	Makban 7	20	04/03/2019 7:35	04/05/2019 19:53	3	Forced Outage	Turbine Oil Leak
VISAYAS	BIOF	HPCO	3	04/03/2019 8:40	04/03/2019 10:29	0	Forced Outage	Offline due to Line clearing
LUZON	NATG	San Lorenzo 2	261.8	04/03/2019 16:25	04/03/2019 22:28	0	Forced Outage	On emergency shutdown due to exciter trouble
LUZON	HYD	Ambuklao 3	35	04/03/2019 18:08	04/03/2019 20:52	0	Forced Outage	Tripped due to broken shear pin
LUZON	GEO	Bacman 1	60	04/04/2019 10:05	04/04/2019 12:02	0	Forced Outage	Cooling system trouble
VISAYAS	OIL	Bohol 4	4	04/04/2019 12:36	04/04/2019 17:05	0	Forced Outage	Emergency shutdown due to excessive fuel leak
VISAYAS	GEO	PGPP2 Unit 2	20	04/06/2019 9:57	04/06/2019 11:06	0	Forced Outage	Auto-tripped. cause of tripping under investigation
VISAYAS	GEO	PGPP2 Unit 2	20	04/07/2019 0:05	04/16/2019 16:40	10	Maintenance Outage	Offline due to PMS
LUZON	COAL	SLPGC 2	150	04/07/2019 4:09	04/20/2019 23:14	14	Forced Outage	Primary Air Fan A high stator winding temp and Primary Air Fan B high motor bearing vibration
VISAYAS	BIOF	HPCO	3	04/07/2019 18:12	04/07/2019 19:15	0	Forced Outage	Offline due to Boiler problem
LUZON	GEO	Makban 3	63	04/07/2019 19:30	04/07/2019 20:04	0	Forced Outage	Turbine Trouble
VISAYAS	BIOF	FFHC	13	04/07/2019 20:45	04/09/2019 8:18	1	Maintenance Outage	Offline due to weekly maintenance
VISAYAS	BIOF	HPCO	3	04/08/2019 5:33	04/08/2019 21:15	1	Maintenance Outage	Offline due to weekly maintenance
LUZON	OIL	Limay 1	60	04/08/2019 8:06	04/08/2019 9:31	0	Forced Outage	High temperature on turbine lube oil
VISAYAS	OIL	PB102 Unit 4	6	04/08/2019 14:02	04/10/2019 15:35	2	Forced Outage	LOW LUBE OIL PRESSURE
LUZON	COAL	Sual 1	647	04/09/2019 21:49	04/16/2019 4:42	6	Forced Outage	Boiler circulating pump piping leak
VISAYAS	BIOF	HPCO	3	04/10/2019 8:22	04/10/2019 13:57	0	Forced Outage	Emergency offline due to mill problem
VISAYAS	OIL	Bohol 2	4	04/10/2019 8:28	04/10/2019 9:11	0	Forced Outage	High exhaust gas temperature at A-bank
VISAYAS	GEO	Upper Mahiao 3	32	04/10/2019 17:02	04/10/2019 22:45	0	Forced Outage	Under assessment
VISAYAS	GEO	Upper Mahiao 4	32	04/10/2019 17:02	04/11/2019 2:35	0	Forced Outage	Tripped due to loss of 24 VDC supply
LUZON	OIL	Limay 5	60	04/11/2019 6:43	04/11/2019 10:31	0	Forced Outage	Static Frequency Converter SFC trouble
LUZON	COAL	SMC 2	150	04/11/2019 16:28	04/22/2019 1:50	10	Forced Outage	High furnace pressure
LUZON	OIL	Limay 1	60	04/11/2019 18:09	04/11/2019 19:02	0	Forced Outage	Generator speed measuring disturbance alarm
VISAYAS	OIL	PB101 Unit 3	6	04/11/2019 18:20	04/12/2019 13:15	1	Forced Outage	Low Lube Oil Pressure
LUZON	HYD	Ambuklao 1	35	04/12/2019 2:41	04/12/2019 4:20	0	Forced Outage	Generator core high temperature
VISAYAS	GEO	Upper Mahiao 1	32	04/12/2019 4:20	04/12/2019 6:01	0	Forced Outage	Tripped. Under assessment by Plant Personnel
VISAYAS	OIL	CENPRI 3	4.2	04/12/2019 12:12	04/13/2019 7:03	1	Forced Outage	Auto tripped due to activation of Generator Differential Protection
LUZON	OIL	Limay 4	90	04/12/2019 17:10	04/12/2019 20:34	0	Forced Outage	Tripping 125Vdc power supply
VISAYAS	OIL	Bohol 1	4	04/12/2019 20:06	04/14/2019 18:11	2	Forced Outage	Fuel leak on cylinder no. 7
LUZON	OIL	Limay 1	60	04/12/2019 22:12	04/12/2019 23:13	0	Forced Outage	Tripped due to actuation of turbine overspeed relay
LUZON	OIL	Limay 1	60	04/13/2019 0:41	04/13/2019 10:54	0	Forced Outage	Tripped due to actuation of turbine overspeed relay
VISAYAS	OIL	CENPRI 1	4.2	04/13/2019 7:03	04/13/2019 15:58	0	Forced Outage	Isolated due to PMS of 69kV Calumangan-San Enrique Line section
VISAYAS	OIL	CENPRI 2	4.2	04/13/2019 7:03	04/13/2019 15:58	0	Forced Outage	Isolated due to PMS of 69kV Calumangan-San Enrique Line section
VISAYAS	OIL	CENPRI 3	4.2	04/13/2019 7:03	04/13/2019 15:58	0	Forced Outage	Isolated due to PMS of 69kV Calumangan-San Enrique Line section
VISAYAS	OIL	CENPRI 4	6.4	04/13/2019 7:03	04/13/2019 15:58	0	Forced Outage	Isolated due to PMS of 69kV Calumangan-San Enrique Line section
VISAYAS	OIL	CENPRI 5	6.4	04/13/2019 7:03	04/13/2019 15:58	0	Forced Outage	Isolated due to PMS of 69kV Calumangan-San Enrique Line section
VISAYAS	SOLR	Islasol 2	27.2	04/13/2019 7:05	04/13/2019 16:00	0	Forced Outage	Isolated due to PMS of 69kV Calumangan-San Enrique Line section
VISAYAS	OIL	CENPRI 1	4.2	04/13/2019 20:01	04/15/2019 10:03	2	Forced Outage	Unable to put unit in service due to excessive leaking of lube oil at lube oil pump
VISAYAS	BIOF	FFHC	13	04/14/2019 11:06	04/16/2019 1:55	2	Maintenance Outage	Offline due to weekly maintenance
VISAYAS	OIL	PB102 Unit 1	6	04/14/2019 20:08	04/15/2019 8:10	1	Forced Outage	Excessive exhaust gas leak at Cyl. 5R
VISAYAS	BIOF	HPCO	3	04/15/2019 5:30	04/15/2019 17:55	1	Maintenance Outage	Offline due to weekly maintenance
VISAYAS	GEO	PGPP2 Unit 2	20	04/16/2019 17:55	04/16/2019 20:51	0	Maintenance Outage	Offline under test & commissioning
VISAYAS	BIOF	HPCO	3	04/16/2019 18:41	04/16/2019 19:24	0	Forced Outage	Auto-tripped on their 13.8kV PCB
LUZON	OIL	Limay 1	60	04/17/2019 11:53	04/17/2019 14:26	0	Forced Outage	Governor trouble.
VISAYAS	BIOF	URC 2	40	04/18/2019 0:55	04/18/2019 3:05	0	Forced Outage	Offline due to Boiler problem
LUZON	NATG	Sta. Rita 2	255.7	04/18/2019 4:40	04/21/2019 16:14	3	Planned Outage	Maintenance Outage until 21 April 2019
LUZON	COAL	SMC 4	150	04/18/2019 6:31	04/21/2019 4:28	3	Planned Outage	On Commissioning Test
LUZON	GEO	Bacman 2	60	04/18/2019 7:14	04/18/2019 15:22	0	Maintenance Outage	Corrective works on plant.s Gas Removal System. RECLASSIFIED FROM FORCE. OMC OUTAGE
VISAYAS	BIOF	HPCO	3	04/18/2019 13:13	04/22/2019 23:14	4	Maintenance Outage	Offline due to weekly shutdown
VISAYAS	BIOF	URC 2	40	04/19/2019 1:14	04/23/2019 9:39	4	Maintenance Outage	Offline due to weekly maintenance
LUZON	NATG	Avion 1	50.3	04/20/2019 8:00	04/21/2019 2:45	1	Maintenance Outage	PMPc to perform maintenance works
LUZON	NATG	Avion 2	50.3	04/20/2019 8:00	04/21/2019 2:45	1	Maintenance Outage	PMPc to perform maintenance works
LUZON	GEO	Bacman 1	60	04/20/2019 11:01	04/20/2019 12:33	0	Forced Outage	Power Supply trouble
VISAYAS	COAL	Kepeco Salcon 2	103	04/20/2019 14:41	04/24/2019 9:02	4	Forced Outage	Possible tube leak

LUZON	OIL	Limay 7	60	04/21/2019 12:27	04/21/2019 13:42	0	Forced Outage	Tripped due to shut-off valve fuel water drain trouble
LUZON	OIL	Limay 7	60	04/21/2019 14:13	04/21/2019 16:17	0	Forced Outage	Tripped due to shut-off valve fuel water drain trouble
VISAYAS	GEO	PGPP2 Unit 1	20	04/21/2019 17:36	04/22/2019 12:03	1	Maintenance Outage	Offline. Under test and commissioning
LUZON	OIL	Limay 7	60	04/21/2019 23:29	04/22/2019 6:43	0	Forced Outage	Unavailable due to shut-off valve fuel water drain trouble
LUZON	COAL	ANDA 1	72	04/22/2019 17:11	04/22/2019 18:45	0	Forced Outage	Affected by 6.1 magnitude earthquake
LUZON	COAL	GN Power 1	316	04/22/2019 17:11	04/25/2019 21:58	3	Forced Outage	Isolated due tripping of Hermosa-Limay 230kV L1, L2 and L3 caused by 6.1 magnitude earthquake
LUZON	COAL	GN Power 2	316	04/22/2019 17:11			Forced Outage	Isolated due tripping of Hermosa-Limay 230kV L1, L2 and L3 caused by 6.1 magnitude earthquake
LUZON	COAL	SMC 1	150	04/22/2019 17:11			Forced Outage	Isolated due tripping of Hermosa-Limay 230kV L1, L2 and L3 caused by 6.1 magnitude earthquake
LUZON	COAL	SMC 2	150	04/22/2019 17:11			Forced Outage	Isolated due tripping of Hermosa-Limay 230kV L1, L2 and L3 caused by 6.1 magnitude earthquake
LUZON	COAL	SMC 3	150	04/22/2019 17:11	04/24/2019 3:42	1	Forced Outage	Isolated due tripping of Hermosa-Limay 230kV L1, L2 and L3 caused by 6.1 magnitude earthquake
LUZON	COAL	SMC 4	150	04/22/2019 17:11	04/23/2019 6:32	1	Forced Outage	Isolated due tripping of Hermosa-Limay 230kV L1, L2 and L3 caused by 6.1 magnitude earthquake
LUZON	GEO	Bacman 1	60	04/22/2019 17:11	04/22/2019 18:27	0	Forced Outage	Affected by 6.1 magnitude earthquake
LUZON	OIL	Limay 1	60	04/22/2019 17:11	04/22/2019 22:36	0	Forced Outage	Isolated due tripping of Hermosa-Limay 230kV L1, L2 and L3 caused by 6.1 magnitude earthquake
LUZON	OIL	Limay 2	60	04/22/2019 17:11	04/22/2019 22:30	0	Forced Outage	Isolated due tripping of Hermosa-Limay 230kV L1, L2 and L3 caused by 6.1 magnitude earthquake
LUZON	OIL	Limay 3	60	04/22/2019 17:11	04/22/2019 21:51	0	Forced Outage	Isolated due tripping of Hermosa-Limay 230kV L1, L2 and L3 caused by 6.1 magnitude earthquake
LUZON	OIL	Limay 4	90	04/22/2019 17:11	04/22/2019 21:22	0	Forced Outage	Isolated due tripping of Hermosa-Limay 230kV L1, L2 and L3 caused by 6.1 magnitude earthquake
LUZON	OIL	Limay 5	60	04/22/2019 17:11	04/22/2019 22:23	0	Forced Outage	Isolated due tripping of Hermosa-Limay 230kV L1, L2 and L3 caused by 6.1 magnitude earthquake
LUZON	OIL	Limay 6	60	04/22/2019 17:11	04/22/2019 22:38	0	Forced Outage	Isolated due tripping of Hermosa-Limay 230kV L1, L2 and L3 caused by 6.1 magnitude earthquake
LUZON	OIL	Limay 7	60	04/22/2019 17:11	04/22/2019 22:21	0	Forced Outage	Isolated due tripping of Hermosa-Limay 230kV L1, L2 and L3 caused by 6.1 magnitude earthquake
LUZON	OIL	Limay 8	90	04/22/2019 17:11	04/23/2019 1:47	0	Forced Outage	Isolated due tripping of Hermosa-Limay 230kV L1, L2 and L3 caused by 6.1 magnitude earthquake
VISAYAS	COAL	CEDC 1	82	04/22/2019 17:32	04/25/2019 13:55	3	Forced Outage	Offline. Gen problem
VISAYAS	COAL	TPC Sangi 2	85	04/22/2019 22:56			Forced Outage	MANUALLY CUT-OUT DUE TO FURNACE PRESSURE HIGH - HIGH
LUZON	HYD	Magat 3	95	04/23/2019 0:01			Maintenance Outage	Low water elevation/hydrological constraint of the plant (Non-GOP)
LUZON	HYD	Magat 4	95	04/23/2019 0:01			Maintenance Outage	Low water elevation/hydrological constraint of the plant (Non-GOP)
VISAYAS	GEO	PGPP2 Unit 2	20	04/23/2019 9:03	04/23/2019 15:59	0	Maintenance Outage	Offline to conduct governor troubleshooting
VISAYAS	BIOF	HPCO	3	04/23/2019 10:16	04/23/2019 16:28	0	Forced Outage	Offline due to internal problem
VISAYAS	COAL	TPC Sangi 1	60	04/23/2019 21:41			Forced Outage	Boiler tube leak
LUZON	COAL	SLTEC 2	122.9	04/23/2019 23:10	04/24/2019 10:50	0	Forced Outage	Tripped due to turbine trouble
LUZON	NATG	Avion 2	50.3	04/24/2019 6:27	04/24/2019 9:31	0	Forced Outage	Drain valve trouble
LUZON	OIL	Limay 4	90	04/24/2019 6:57	04/24/2019 16:24	0	Forced Outage	Steam stub valve malfunction
VISAYAS	OIL	Bohol 4	4	04/24/2019 11:32	04/24/2019 16:04	0	Forced Outage	Emergency cut out due to abnormal knocking sound
LUZON	HYD	Caliraya 1	14	04/24/2019 12:37	04/24/2019 15:14	0	Forced Outage	Inverter failure
LUZON	HYD	Caliraya 2	14	04/24/2019 13:37	04/24/2019 15:15	0	Forced Outage	Inverter failure
LUZON	COAL	Pagbilao 1	382	04/24/2019 22:56	04/24/2019 23:59	0	Planned Outage	Conducted Load Rejection Test(LRT) at 30MW load
LUZON	COAL	Pagbilao 1	382	04/25/2019 0:00	04/25/2019 10:24	0	Forced Outage	Fiber Optic controller problem
VISAYAS	OIL	Bohol 4	4	04/25/2019 9:04	04/25/2019 14:08	0	Forced Outage	Unusual sound at charge air distributor
VISAYAS	BIOF	HPCO	3	04/25/2019 10:10	04/25/2019 15:21	0	Forced Outage	Offline due to low voltage at 13.8kV side. Note. Receiving Voltage. 67.9kV
LUZON	COAL	SLPGC 1	150	04/25/2019 15:32	04/25/2019 18:09	0	Forced Outage	Batangas SIPS activation
LUZON	COAL	SLPGC 2	150	04/25/2019 15:32	04/25/2019 21:30	0	Forced Outage	Batangas SIPS activation
LUZON	COAL	SLTEC 2	122.9	04/25/2019 15:32	04/25/2019 22:41	0	Forced Outage	Batangas SIPS activation
LUZON	COAL	SLTEC 1	121	04/25/2019 15:33			Forced Outage	Batangas SIPS activation