



# **Market Surveillance Committee Monthly Market Assessment Report**

---

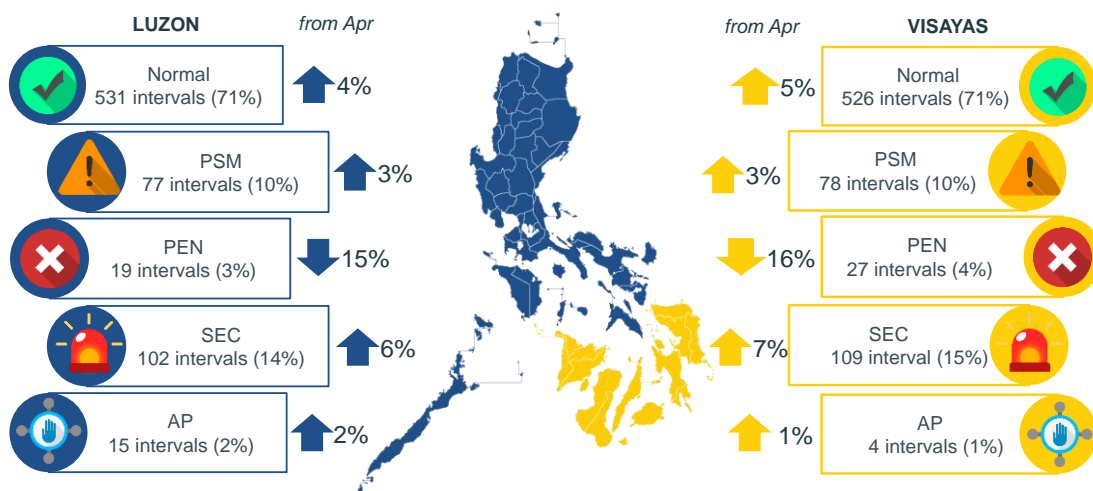
**26 May to 25 June 2021**

**JULY 2021**

This Report is prepared by the  
Philippine Electricity Market Corporation –  
Market Assessment for the  
Market Surveillance Committee

## ASSESSMENT OF THE MARKET

### SUMMARY OF PRICING CONDITIONS



- The number of intervals imposed with Price Substitution Methodology (PSM) increased after observing more constraints from the Samboan-Amlan line than last month.
- Intervals with pricing error notices not caused by congestion mainly resulted from inappropriate input data, affecting Luzon and Visayas prices and schedules.
- Secondary price cap at PHP6,245/MWh was imposed due to presence of high generator prices breaching the cumulative price threshold of PHP9,000/MWh
- System Operator initiated Market Intervention in Luzon from 31 May to 01 June as a result of supply deficiency while Market Operator declared the same in both regions on 16 June due to Market Management System hardware failure.

### NOTABLE HIGHLIGHTS

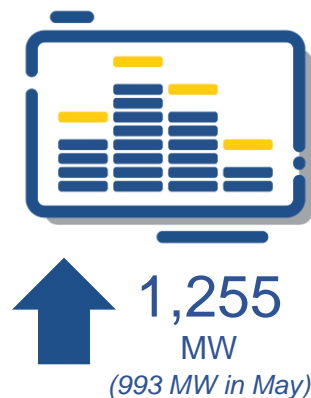
- Declining level of outage capacity
  - Constant improvement resulted to an average of around 2,000 MW
- Deterioration in available capacity of Ilijan NGPP
  - SPEX Malampaya gas supply restriction since 22 March 2021, 2200H
- Occurrence of price spikes and interesting pricing events
  - Increase in generation from more expensive power plants resulting to high prices
- Market Intervention declaration from SO and MO
  - MI events arose from (1) generation deficiency, and (2) no RTD schedule generation because of MMS hardware failure

## MARKET OUTCOME

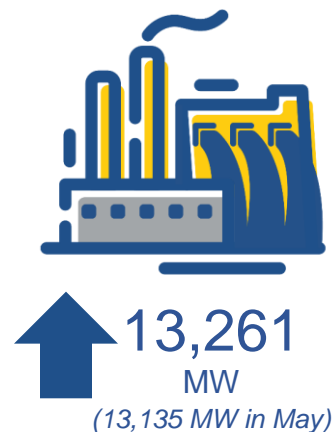
### PRICE



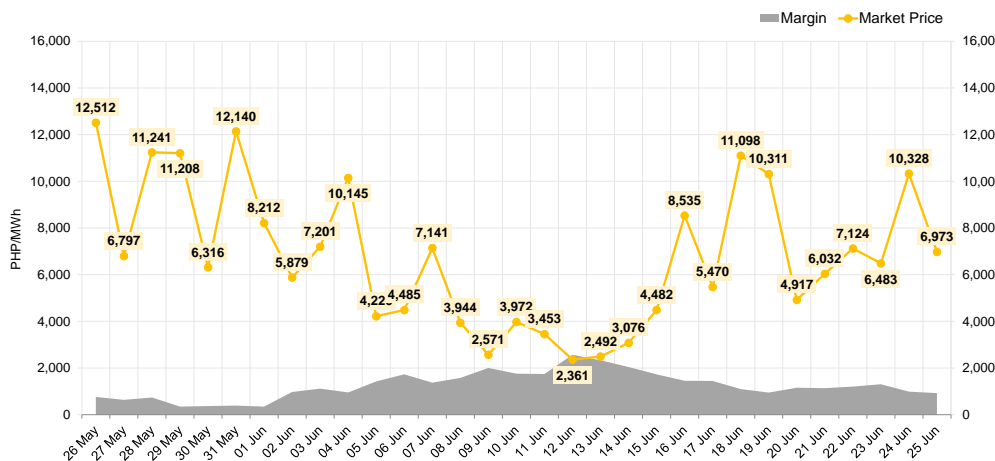
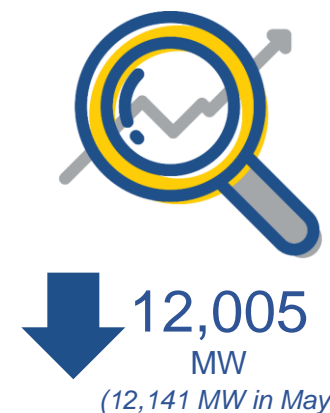
### SUPPLY MARGIN



### EFFECTIVE SUPPLY

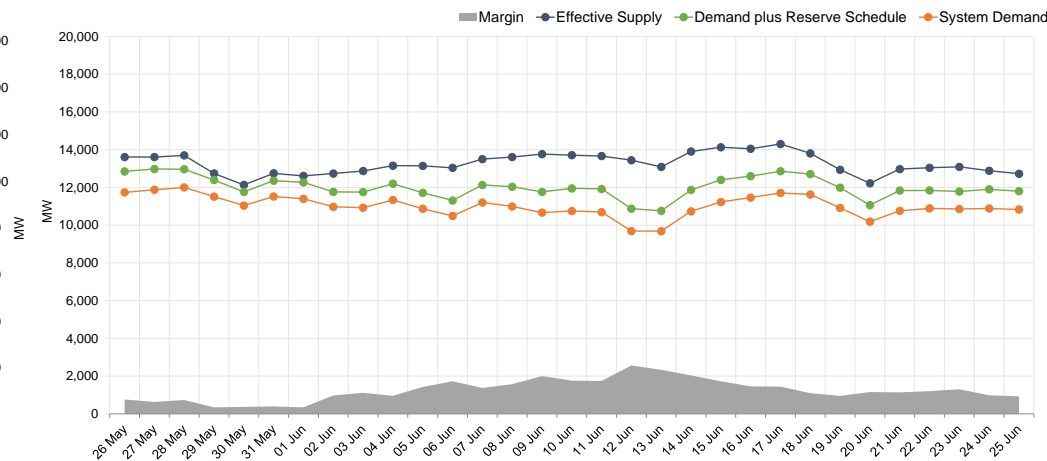


### DEMAND PLUS RESERVE SCHEDULE



Despite volatility in the movement of daily prices, a general downtrend manifested towards the middle of the month, but later increased as supply diminished.

Administered prices and secondary price caps were evident during the onset of the month

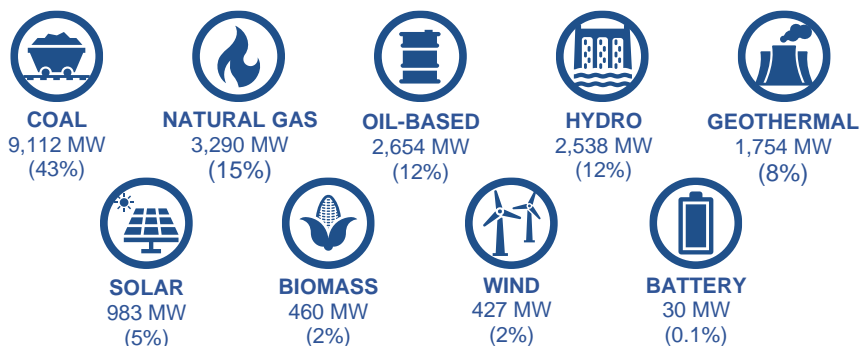


The System Operator declared Yellow (31 May – 02 June, 04 June) and Red (31 May – 02 Jun) Status Alerts in the Luzon grid due to insufficient reserves.

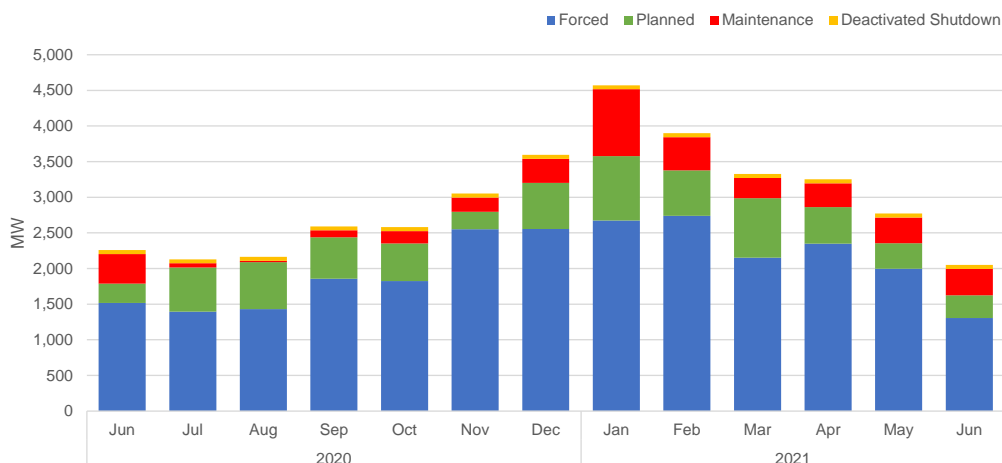
System demand, without consideration of reserves, peaked at 13,676 MW on 28 May 2021 at 1500H, recording the all-time highest demand as of date.

## CAPACITY PROFILE

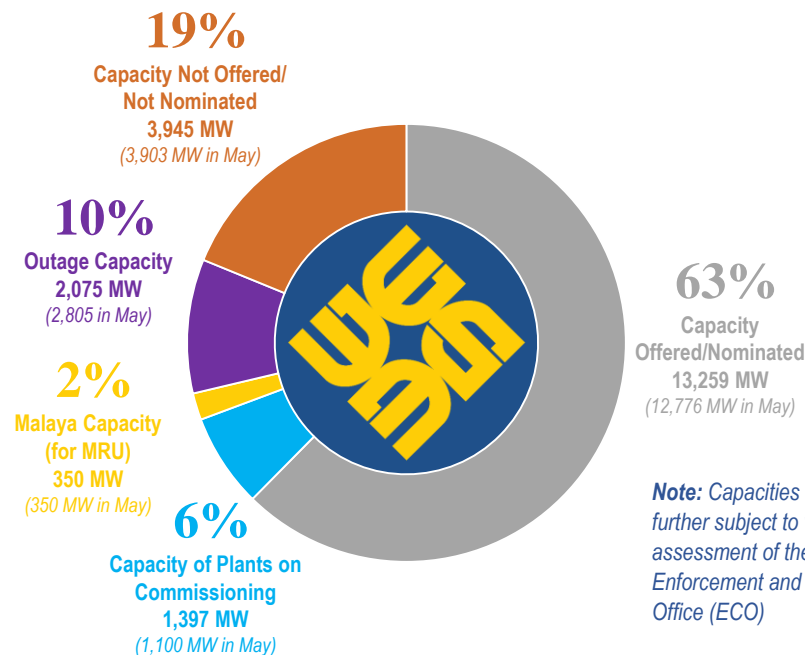
- The WESM registered capacity effectively increased by 309.4 MW from a total of 20,938.27 MW to 21,247.67 MW
  - Increase in maximum capacity of Petron Corporation coal plant from 70 MW to 140 MW
  - New registration of the 150-MW Ingrid Power Holdings, Inc. oil-based plant and the 89.4-MW SOLARACE1 Energy Corp. solar plant
- The SPEX Malampaya gas supply restriction since 22 March 2021 was lifted on 14 June 2021 but was reinstated on 19 June 2021



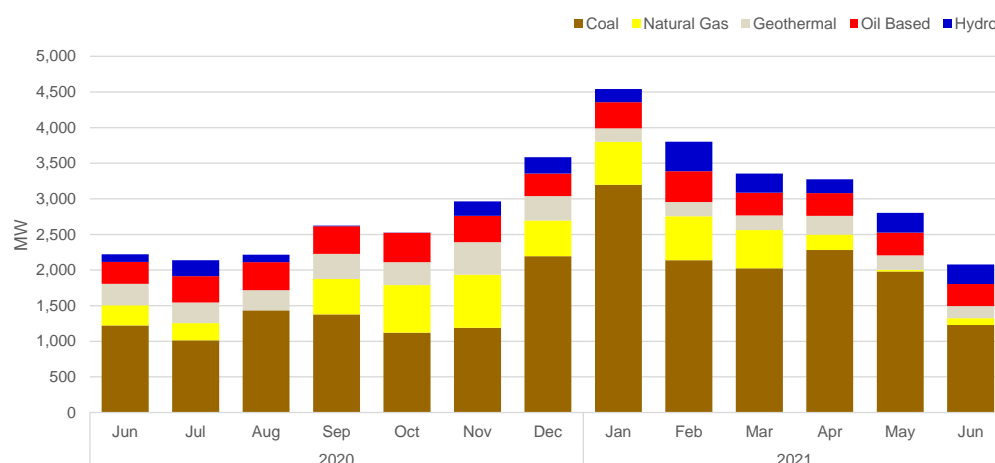
## OUTAGE CAPACITY BY OUTAGE CATEGORY



Outage capacity was improving since the start of the year with majority of the outages classified as forced at 64 percent of the total outages this month

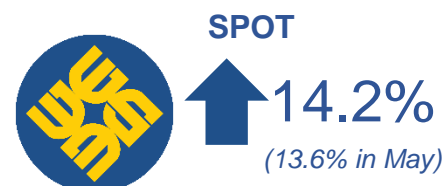
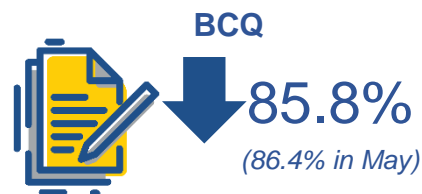


## OUTAGE CAPACITY BY PLANT TYPE

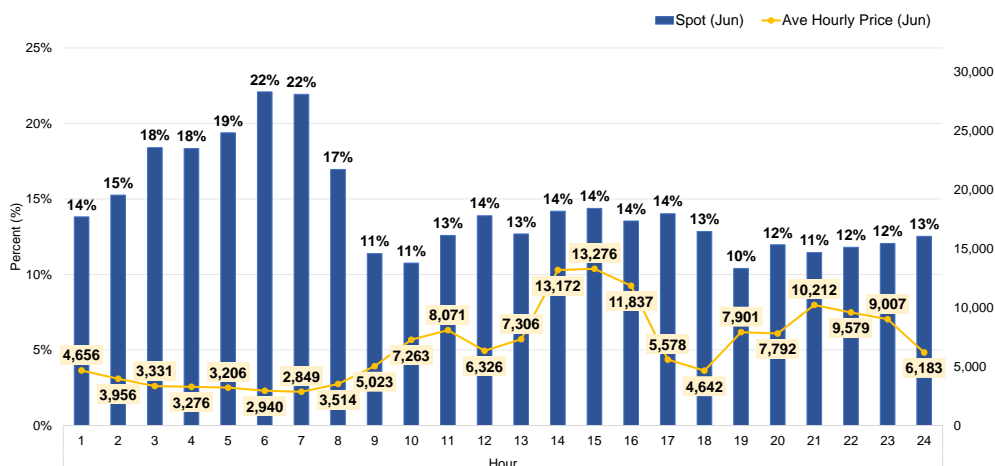


With the largest share in terms of registered capacity, coal plants continued to post the highest share in terms of outage capacity, but the level was in a declining trend.

## MARKET TRANSACTIONS

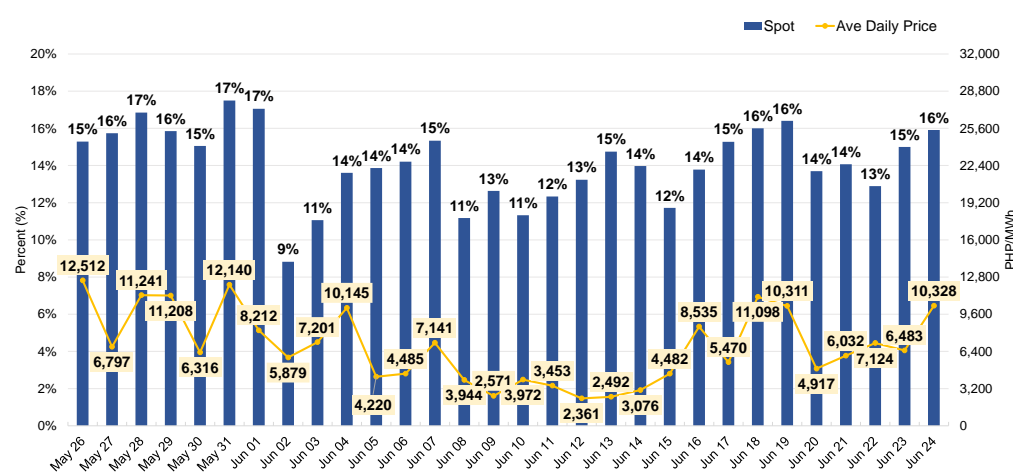


### HOURLY SPOT



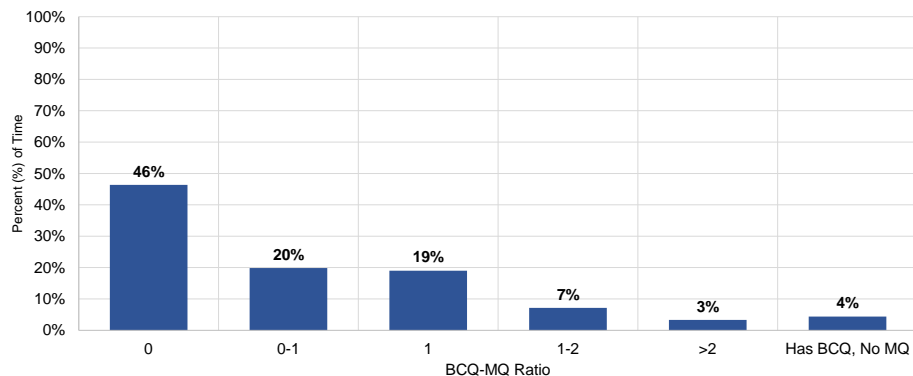
Total spot quantities of generator participants in June stood at an average of 15.9 percent during off-peak and 12.8 percent during peak hours, indicating less quantities exposed in the market during high prices.

### DAILY SPOT



Spot share during weekdays averaged at 14.1 percent while it was 14.7 percent during weekends.

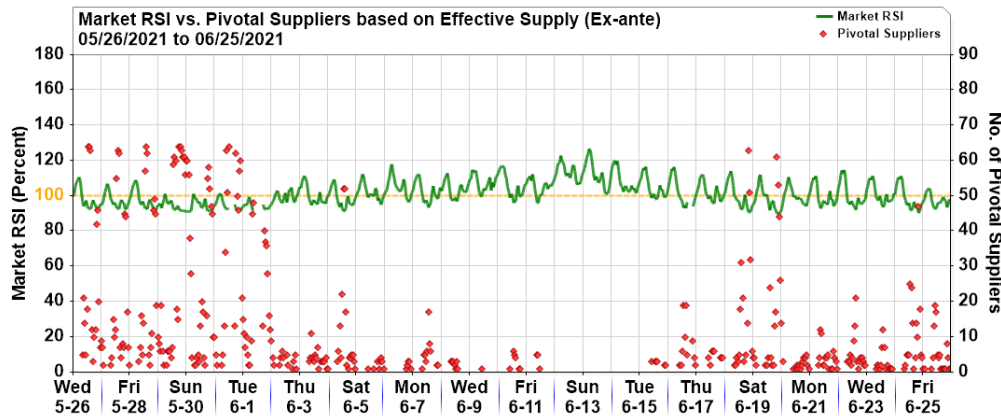
### BCQ-MQ RATIO



- The resulting BCQ to MQ ratio of 0 demonstrates that the entire capacity of generators was being fully sold in the market at almost half of the time or 46 percent
- Roughly 20 percent had a BCQ to MQ ratio of 1 which resulted from all metered quantities being allocated to serve bilateral contract obligations
- About 1 percent were accounted for by generators which fully bought energy in the market to serve their bilateral contract obligations because of no MQ
- The remaining 33 percent accounted for BCQs consuming a fraction of their MQ (20 percent), declared BCQs up to twice their MQ (9 percent), and declared BCQs more than twice their MQ (4 percent)

## STRUCTURAL COMPETITION INDICES

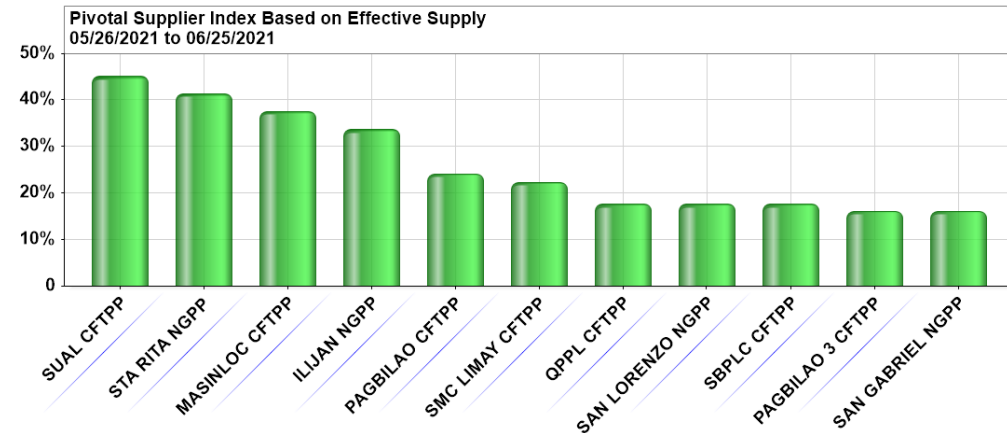
### MARKET RSI



Out of the 744 trading intervals in June 2021 billing month, about half or 368 intervals had a Residual Supply Index (RSI) below the 100 percent mark which were evident during high prices in the market.

The average market prices for intervals with RSI below 100 percent was PHP10,032/MWh while those with RSI above 100 was PHP2,994/MWh.

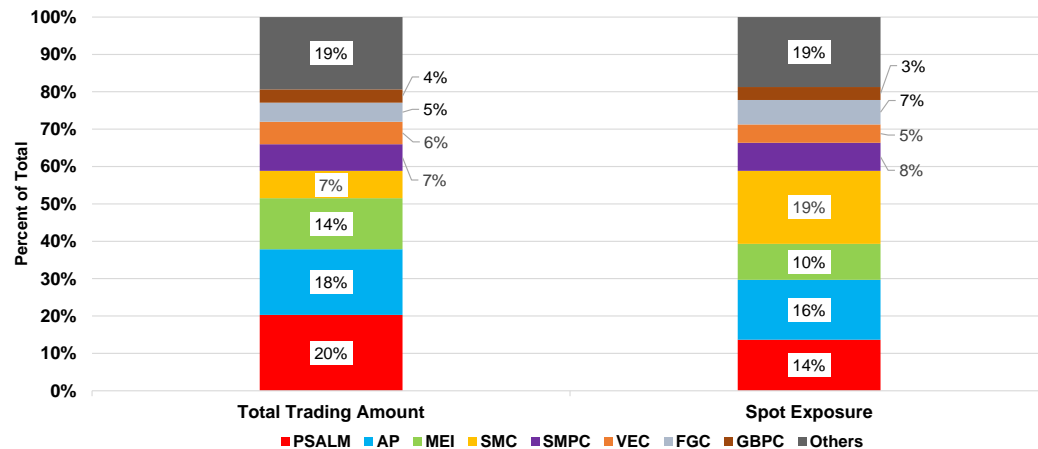
### PIVOTAL PLANTS



A total of 67 power plants were pivotal during the period with 44 coming from Luzon and 23 from Visayas.

Limay CCGT, Bauang DPP, and Calumangan DPP were the top 3 out of 15 concurrent pivotal suppliers and price setters above PHP10,000/MWh for around 7.7 percent, 3.1 percent, and 2.6 percent of the time, respectively.

## TTA AND SPOT SHARE



- Power Sector Assets and Liabilities and Management (PSALM) managed to obtain the highest TTA share of sellers in the market with approximately 20 percent.
- Aboitiz Power Corporation (AP) declined in rank and recorded the second highest TTA share of around 18 percent.
- Millennium Energy, Inc. (MEI) maintained its third place, ending with a 14 percent of TTA share.
- The top 3 highest TTA shares corresponded to high spot shares in the market.



## Annex A. List of Major Plant Outages

Region	Plant Type	Plant/ Unit Name	Capacity (MW)	Date Out	Date In	Duration (Days)	Outage Type	Remarks	Date Commissioned/ Commercial Operation
LUZON	GEO	Makban 6	55	04/11/2013 22:44			Deactivated Shutdown	Conducted gas compressor test	Apr 1979
LUZON	OIL	Malaya 1	300	05/03/2019 18:21			Forced Outage	Motorization of unit generator caused by the non-opening of phase B of PCB 8-	Aug 1975
VISAYAS	GEO	Upper Mahiao 3	32	07/22/2020 17:01			Maintenance Outage	Trip with Loss of Excitation. Economic Shutdown	Jul 1997
LUZON	COAL	Calaca 2	300	12/03/2020 9:01			Forced Outage	Generator stator earth fault	Sep 1984
LUZON	COAL	GN Power 1	316	01/08/2021 18:26			Forced Outage	Boiler tube leak.	May 2013
VISAYAS	COAL	CEDC 1	82	02/24/2021 0:52	06/15/2021 23:59	111.96	Planned Outage	UNIT SHUTDOWN TO FACILITATE ANUAL PMS UNTIL 17 MARCH 2021	Apr 2010
LUZON	HYD	Bakun 1	37	03/06/2021 6:08	05/26/2021 15:42	81.40	Maintenance Outage	Total Plant shutdown due to facilitate APM and other protection related activities	Feb 2001
LUZON	GEO	Makban 1	63.2	03/18/2021 21:14	06/18/2021 14:55	91.74	Forced Outage	Steam supply diverted to Unit 2	Apr 1979
LUZON	HYD	Masiway	12	04/26/2021 17:01	05/28/2021 6:01	31.54	Maintenance Outage	APM	Jan 1981
LUZON	COAL	SLTEC 2	122.9	04/30/2021 5:01	05/30/2021 14:09	30.38	Forced Outage	Tripped while on the process of de-loading due to steam leak	Aug 2015
VISAYAS	COAL	Kepco Salcon 1	103	05/08/2021 2:34	06/03/2021 6:36	26.17	Planned Outage	APMS	Nov 2010
LUZON	COAL	Sual 2	647	05/16/2021 0:28	06/02/2021 14:21	17.58	Maintenance Outage	To correct the problem at pressure control valve of gland steam	Oct 1999
LUZON	HYD	Angat M 1	50	05/17/2021 8:01	05/27/2021 10:02	10.08	Planned Outage	APMT of Transformer A	Oct 1967
LUZON	HYD	Angat M 2	50	05/17/2021 8:01	05/27/2021 10:02	10.08	Planned Outage	APMT of Transformer A	Oct 1967
VISAYAS	OIL	TPVI 3	6.8	05/20/2021 13:49	05/28/2021 18:43	8.20	Forced Outage	EMERGENCY CUT-OUT DUE TO CUT-OFF STUD BOLT	Aug 1977
VISAYAS	COAL	TPC Sangi 2	85	05/23/2021 0:17	06/11/2021 16:26	19.67	Forced Outage	TGS OFFLINE DUE HIGH VIBRATION BEARING 5	Dec 2013
LUZON	HYD	Caliraya 1	14	05/24/2021 8:01	05/31/2021 8:11	7.01	Planned Outage	Semi-Annual Maintenance shutdown	Oct 2002
LUZON	HYD	Caliraya 2	14	05/24/2021 8:01	05/31/2021 8:11	7.01	Planned Outage	Semi-Annual Maintenance.	Oct 2002
VISAYAS	OIL	TPVI 5	6.8	05/24/2021 15:33	05/30/2021 20:13	6.19	Forced Outage	CUT-OUT DUE TO BROKEN STUD BOLT	Aug 1977
LUZON	OIL	Limay 7	60	05/25/2021 16:23	05/26/2021 12:38	0.84	Forced Outage	Declared unavailable due to fuel valve malfunction	Dec 1994
LUZON	HYD	Kalayaan 3	180	05/26/2021 0:08	05/26/2021 2:07	0.08	Forced Outage	Tripped due to the activation of T04 Stator Earth Gen. 64G	May 2004
VISAYAS	GEO	PGPPI Unit 2	37.5	05/26/2021 2:35	06/19/2021 19:24	24.70	Planned Outage	Offline due to APMS per GOMP.	Aug 1983
LUZON	OIL	SLPGC 4	25	05/26/2021 17:25	05/26/2021 20:23	0.12	Forced Outage	Declared unavailable due to broken fan blade	Mar 2017
VISAYAS	COAL	PEDC 3	150	05/26/2021 22:50	05/27/2021 5:35	0.28	Forced Outage	Auto tripped(150.0MW) due to Fluidized Air Blower problem.	Aug 2016
LUZON	HYD	Kalayaan 1	180	05/27/2021 13:47	05/29/2021 22:42	2.37	Forced Outage	Tail water gate trouble	Aug 1982
VISAYAS	OIL	TPVI 2	6.7	05/27/2021 20:41	06/05/2021 18:59	8.93	Forced Outage	CUT-OUT DUE TO GEN. PROBLEM	Aug 1977
LUZON	NATG	San Lorenzo 2	261.8	05/28/2021 20:50	05/31/2021 4:53	2.34	Maintenance Outage	Maintenance Outage	Sep 2002
LUZON	HYD	San Roque 1	145	05/30/2021 0:01	06/14/2021 0:01	15.00	Planned Outage	Scheduled shutdown (GOP) until 13 June 2021.	May 2003
LUZON	HYD	San Roque 2	145	05/30/2021 0:01	06/14/2021 0:01	15.00	Planned Outage	Scheduled shutdown (GOP) until 13 June 2021.	May 2003
LUZON	HYD	San Roque 3	145	05/30/2021 0:01	06/14/2021 0:01	15.00	Planned Outage	Scheduled shutdown (GOP) until 13 June 2021.	May 2003
LUZON	OIL	Limay 1	60	05/30/2021 9:52	05/30/2021 13:01	0.13	Forced Outage	Malfunction of module card of blow off valve test device or rotor boring operation	May 1993
VISAYAS	OIL	TPVI 5	6.8	05/30/2021 20:14	05/30/2021 22:09	0.08	Forced Outage	DUE TO FUEL LEAK	Aug 1977
LUZON	NATG	Sta. Rita 2	255.7	05/31/2021 17:09	05/31/2021 22:33	0.22	Forced Outage	Tripped due to actuation of GT Protection	Jun 2000
LUZON	COAL	GN Power 2	316	06/01/2021 3:56	06/09/2021 17:09	8.55	Forced Outage	Emergency Shutdown due to boiler tube leak	May 2013
LUZON	OIL	SLPGC 4	25	06/01/2021 15:41	06/01/2021 17:18	0.07	Forced Outage	High fuel temperature.	Mar 2017
LUZON	HYD	Magat 3	97	06/02/2021 8:55	06/04/2021 20:15	2.47	Forced Outage	Excitation Trouble	Oct 1983
LUZON	COAL	ANDA 1	72	06/02/2021 9:33	06/02/2021 12:58	0.14	Forced Outage	Affected by the tripping of Mexico-Clark 69kV line 2	Apr 2015
VISAYAS	GEO	Upper Mahiao 1	32	06/02/2021 10:01	06/02/2021 13:25	0.14	Forced Outage	Under assessment	Jul 1997
VISAYAS	GEO	Upper Mahiao 2	32	06/02/2021 10:01	06/02/2021 15:50	0.24	Forced Outage	Under assessment	Jul 1997
VISAYAS	GEO	Upper Mahiao 4	32	06/02/2021 10:01	06/02/2021 20:02	0.42	Forced Outage	Under assessment	Jul 1997
LUZON	COAL	Pagbilao 2	382	06/02/2021 12:12	06/05/2021 18:51	3.28	Forced Outage	Emergency shutdown due to boiler tube leak	Mar 1996
LUZON	NATG	Ilijan A1	190	06/02/2021 17:15	06/03/2021 1:55	0.36	Forced Outage	Cooling strainers high differential pressure due to bad sea water condition	Jun 2002
LUZON	NATG	Ilijan B1	190	06/02/2021 18:19	06/03/2021 4:55	0.44	Forced Outage	Cooling strainers high differential pressure due to bad sea water condition	Jun 2002
LUZON	NATG	Avion 1	50.3	06/02/2021 18:56	06/03/2021 1:55	0.29	Forced Outage	Turbine fan enclosure problem	Aug 2015
VISAYAS	GEO	PGPP2 Unit 2	20	06/04/2021 4:10	06/04/2021 5:25	0.05	Forced Outage	Auto-tripped due to hot well pump trouble	Aug 1983
VISAYAS	GEO	PGPP2 Unit 3	20	06/04/2021 20:14	06/05/2021 1:54	0.24	Forced Outage	Emergency shutdown due to hotspot at generator terminal.	Aug 1983
VISAYAS	GEO	PGPPI Unit 1	37.5	06/04/2021 22:05	06/05/2021 0:25	0.10	Forced Outage	Auto-tripped with relay indication-- Electrical Protection Trip.	Aug 1983
LUZON	GEO	Bacman 3	20	06/04/2021 22:27	06/05/2021 8:30	0.42	Forced Outage	Tripped due to circulating valve malfunction.	Sep 1993
LUZON	OIL	Limay 1	60	06/05/2021 5:51	06/05/2021 17:16	0.48	Forced Outage	Tripped due to acceleration by start limit activated and pressure after electro hydraulic converter oil greater than max.	May 1993
LUZON	OIL	Limay 1	60	06/05/2021 23:42	06/06/2021 17:11	0.73	Forced Outage	Failed start-up.	May 1993
VISAYAS	COAL	Kepco Salcon 2	103	06/07/2021 2:41			Planned Outage	APMS	Mar 2011
LUZON	NATG	Avion 1	50.3	06/07/2021 14:54	06/07/2021 17:56	0.13	Forced Outage	Tripped due to liquid manifold drain valve	Aug 2015
LUZON	GEO	TIWI 6	57	06/09/2021 7:30	06/09/2021 12:55	0.23	Maintenance Outage	Maintenance outage to facilitate repair of oil leak at excitation transformer	Jan 1979
VISAYAS	COAL	PEDC 3	150	06/09/2021 22:15	06/10/2021 3:33	0.22	Forced Outage	Blow off steam valve	Aug 2016
VISAYAS	COAL	PEDC 3	150	06/10/2021 13:35	06/15/2021 12:36	4.96	Forced Outage	Under investigation	Aug 2016
LUZON	NATG	Sta. Rita 3	265.5	06/11/2021 3:16	06/11/2021 10:44	0.31	Forced Outage	GT protection actuation.	Oct 2001
LUZON	NATG	Sta. Rita 4	264	06/11/2021 23:43	06/14/2021 8:30	2.37	Maintenance Outage	Maintenance outage until 14 June 2021.	Oct 2001
VISAYAS	OIL	CENPRI 5	6.7	06/12/2021 18:49	06/12/2021 19:01	0.01	Forced Outage	Auto-tripped due to erratic temperature on injector cooling at rated load.	May 2018
VISAYAS	OIL	CENPRI 5	6.7	06/12/2021 19:10	06/12/2021 21:32	0.10	Forced Outage	Auto-tripped due to erratic temperature on injector cooling at rated load.	May 2018
VISAYAS	OIL	CENPRI 5	6.7	06/14/2021 19:02	06/15/2021 9:19	0.60	Forced Outage	Emergency shutdown.	May 2018
VISAYAS	GEO	PGPPI Unit 1	37.5	06/15/2021 9:28	06/25/2021 4:40	9.80	Forced Outage	Auto tripped due to tripping of 138kV Amlan-Samboan Line1.	Aug 1983
VISAYAS	GEO	PGPPI Unit 3	37.5	06/15/2021 9:28	06/23/2021 0:17	7.62	Forced Outage	Auto tripped due to tripping of 138kV Amlan-Samboan Line1.	Aug 1983
VISAYAS	GEO	PGPPI Unit 1	20	06/15/2021 9:29	06/15/2021 10:56	0.06	Forced Outage	Auto tripped due to tripping of 138kV Amlan-Samboan Line1.	Aug 1983
VISAYAS	GEO	PGPPI Unit 3	20	06/15/2021 9:29	06/15/2021 11:25	0.08	Forced Outage	Auto tripped due to tripping of 138kV Amlan-Samboan Line1.	Aug 1983
VISAYAS	OIL	CENPRI 3	4.5	06/15/2021 12:35	06/15/2021 13:02	0.02	Forced Outage	Auto tripped due to loss of field.	Mar 2016
VISAYAS	OIL	PDPPI 3	13	06/15/2021 18:27	06/15/2021 23:05	0.19	Forced Outage	Exhaust gas leak at cylinder A8	Mar 2005
LUZON	COAL	Masinfloc 2	344	06/15/2021 21:54	06/15/2021 23:08	0.05	Forced Outage	Tripped at 39MW load.	Jun 1998
LUZON	COAL	APEC 1	52	06/16/2021 10:44	06/16/2021 11:07	0.02	Forced Outage	Tripped simultaneously with the activation of Batangas SIPS.	Jul 2006
LUZON	COAL	SLPGC 2	150	06/16/2021 10:44	06/16/2021 18:04	0.31	Forced Outage	Tripped from 150MW load due to activation of Batangas SIPS.	Jan 2015
LUZON	COAL	SLTEC 1	121	06/16/2021 10:44	06/17/2021 0:08	0.56	Forced Outage	Tripped from 121MW load due to activation of Batangas SIPS.	Sep 2014
LUZON	NATG	Sta. Rita 1	257.3	06/16/2021 10:44	06/16/2021 13:20	0.11	Forced Outage	Tripped from 257MW load due to activation of Batangas SIPS.	Jun 2000
VISAYAS	COAL	CEDC 1	82	06/16/2021 13:44	06/19/2021 18:09	3.18	Forced Outage	EMERGENCY CUT-OUT FROM THE SYSTEM FOR POSSIBLE BOILER TUBE LEAK	Apr 2010
LUZON	GEO	Bacman 3	20	06/16/2021 14:10	06/16/2021 22:07	0.33	Forced Outage	Condenser water level control valve stuck at full open.	Sep 1993
VISAYAS	OIL	BP101 Unit 4	6	06/16/2021 14:46	06/18/2021 18:12	2.14	Forced Outage	Offline due to HEGT at Cyl. 5L	Jan 1978
VISAYAS	OIL	TPVI 4	6.8	06/16/2021 18:33	06/18/2021 10:10	1.65	Forced Outage	EMERGENCY CUT-OUT FROM THE SYSTEM DUE TO LOW EGT CYL. A1	Aug 1977
VISAYAS	COAL	THVI 2	169	06/16/2021 21:43			Forced Outage	EMERGENCY CUT-OUT FROM THE SYSTEM. POSSIBLE TUBE LEAK AT SEPARATOR SIDE	Dec 2017
LUZON	GEO	Bacman 3	20	06/17/2021 20:10	06/18/2021 4:07	0.33	Maintenance Outage	Condenser water level control valve stuck at full open.	Sep 1993
LUZON	HYD	Kalayaan 3	180	06/18/2021 0:01	06/22/2021 19:12	4.80	Maintenance Outage	Maintenance Outage	May 2004
LUZON	NATG	Avion 1	50.3	06/18/2021 0:03	06/20/2021 21:19	2.89	Planned Outage	Semi-Annual inspection.	Aug 2015

Region	Plant Type	Plant/ Unit Name	Capacity (MW)	Date Out	Date In	Duration (Days)	Outage Type	Remarks	Date Commissioned/ Commerical Operation
LUZON	COAL	SLTEC 2	122.9	06/18/2021 4:17			Forced Outage	Boiler tube leak.	Aug 2015
VISAYAS	OIL	TPVI 5	6.8	06/18/2021 11:34			Forced Outage	WATER LEAK	Aug 1977
VISAYAS	OIL	TPVI 4	6.8	06/18/2021 13:44	06/19/2021 2:32	0.53	Forced Outage	LOOSE STUD BOLT	Aug 1977
VISAYAS	OIL	TPVI 2	6.7	06/18/2021 14:14	06/19/2021 18:10	1.16	Forced Outage	LOOSE STUD BOLT	Aug 1977
VISAYAS	OIL	TPVI 1	6.7	06/18/2021 15:40	06/18/2021 18:52	0.13	Forced Outage	WATER LEAK	Aug 1977
LUZON	GEO	Makban 7	20	06/18/2021 17:11	06/23/2021 2:38	4.39	Maintenance Outage	Maintenance Outage.	Apr 1979
LUZON	GEO	Makban 8	20	06/18/2021 17:34	06/23/2021 10:36	4.71	Maintenance Outage	Maintenance Outage.	Apr 1979
LUZON	NATG	San Lorenzo 1	264.8	06/19/2021 0:29	06/21/2021 6:01	2.23	Maintenance Outage	Maintenance Outage	Sep 2002
LUZON	COAL	Pagbilao 1	382	06/19/2021 0:56			Maintenance Outage	Maintenance Outage	Mar 1996
LUZON	HYD	Binga 1	35	06/19/2021 8:14	06/19/2021 11:56	0.15	Maintenance Outage	Installation of governor air cooler.	Jan 1960
VISAYAS	GEO	Leyte 2	39.3	06/19/2021 10:16	06/20/2021 0:05	0.58	Forced Outage	Greencore TGPP emergency shutdown due to main steam inlet compensator leak	Jun 1983
VISAYAS	GEO	Leyte 3	40.2	06/19/2021 10:53	06/19/2021 22:14	0.47	Forced Outage	Greencore TGPP emergency shutdown due to main steam inlet compensator leak	Jun 1983
VISAYAS	GEO	Leyte 1	41	06/19/2021 11:09	06/20/2021 9:13	0.92	Forced Outage	Greencore TGPP emergency shutdown due to main steam inlet compensator leak	Jun 1983
VISAYAS	OIL	TPC Carmen 1	10	06/19/2021 12:07	06/19/2021 14:25	0.10	Forced Outage	DUE TO MAIN BEARING TEMPERATURE HIGH	Mar 1979
LUZON	NATG	Avion 2	50.3	06/20/2021 0:03	06/20/2021 21:19	0.89	Planned Outage	Semi-annual inspection of GT.	Aug 2015
VISAYAS	GEO	PGPP1 Unit 2	37.5	06/20/2021 1:11	06/20/2021 17:44	0.69	Maintenance Outage	Offline under test and commissioning.	Aug 1983
LUZON	HYD	Binga 4	35	06/20/2021 8:04	06/20/2021 11:33	0.15	Maintenance Outage	Maintenance Outage	Jan 1960
LUZON	HYD	Binga 2	35	06/20/2021 13:04	06/20/2021 15:56	0.12	Planned Outage	Planned Outage	Jan 1960
VISAYAS	GEO	Mahanagdong A2	5	06/20/2021 16:01	06/20/2021 19:04	0.13	Forced Outage	Under assessment	Jul 1997
VISAYAS	GEO	Mahanagdong A2	5	06/20/2021 20:09	06/21/2021 23:17	1.13	Forced Outage	Generator ground fault relay activation	Jul 1997
VISAYAS	GEO	PGPP1 Unit 2	37.5	06/21/2021 1:06	06/21/2021 16:33	0.64	Maintenance Outage	Offline under test and commissioning	Aug 1983
LUZON	NATG	San Lorenzo 1	264.8	06/21/2021 6:02	06/21/2021 9:13	0.13	Forced Outage	Extended Maintenance Outage	Sep 2002
VISAYAS	OIL	TPVI 4	6.8	06/21/2021 14:07	06/21/2021 15:22	0.05	Forced Outage	UNIT EMERGENCY CUT-OUT FROM THE SYSTEM TO FACILITATE REPLACEMENT OF MAIN BEARING SENSOR NO. 1	Aug 1977
VISAYAS	GEO	PGPP1 Unit 2	37.5	06/21/2021 16:47	06/21/2021 17:08	0.01	Maintenance Outage	Offline. Conducted Load Rejection Test. under test and commissioning	Aug 1983
VISAYAS	GEO	Upper Mahiao 4	32	06/22/2021 21:09	06/23/2021 23:10	1.08	Forced Outage	Loss of excitation. Load is 26.98mw	Jul 1997
VISAYAS	GEO	PGPP1 Unit 3	37.5	06/23/2021 0:18			Maintenance Outage	Offline due to PMS	Aug 1983
VISAYAS	GEO	PGPP2 Unit 1	20	06/23/2021 8:13	06/23/2021 15:48	0.32	Maintenance Outage	Offline due to maintenance activity	Aug 1983
LUZON	NATG	Sta. Rita 1	257.3	06/23/2021 17:20	06/23/2021 22:12	0.20	Forced Outage	Gas Turbine protection tripped	Jun 2000
LUZON	HYD	Ambuklao 1	35	06/24/2021 6:01	06/25/2021 8:01		Planned Outage	Replacement of IED Gen. Meters.	Dec 1956
LUZON	HYD	Ambuklao 2	35	06/24/2021 8:01	06/25/2021 10:01		Planned Outage	Replacement of IED Gen. Meters.	Dec 1956
VISAYAS	GEO	PGPP2 Unit 2	20	06/24/2021 8:05	06/24/2021 15:41		Forced Outage	Offline due to corrective maintenance	Aug 1983
LUZON	NATG	Sta. Rita 1	257.3	06/24/2021 10:28			Forced Outage	GT protection actuated.Tripped at 122MW load. System Frequency is 59.63hz	Jun 2000
VISAYAS	GEO	PGPP1 Unit 2	37.5	06/25/2021 4:40	06/25/2021 7:49		Forced Outage	Auto-tripped. with indication Condenser Level Low. Simultaneous with tripping of 138kV Amlan-Nasuji L2. Ongoing investigation on the cause of tripping	Aug 1983
VISAYAS	GEO	PGPP2 Unit 3	20	06/25/2021 4:40	06/25/2021 16:05		Forced Outage	Auto-tripped. Condenser Level High High indication. simultaneous with tripping of 138kV Amlan-Nasuji L2. Ongoing investigation on the cause of tripping	Aug 1983
VISAYAS	GEO	PGPP1 Unit 1	37.5	06/25/2021 4:41			Forced Outage	Auto-tripped. simultaneous with tripping of 138kV Amlan-Nasuji L2. Ongoing investigation on the cause of tripping	Aug 1983
LUZON	HYD	Ambuklao 3	35	06/25/2021 6:01	06/25/2021 7:08		Planned Outage	Replacement of IED Gen. Meters.	Dec 1956
LUZON	GEO	Bacman 3	20	06/25/2021 16:58	06/25/2021 20:11		Forced Outage	Tripped at 19MW load.	Sep 1993
LUZON	OIL	Limay 1	60	06/25/2021 19:46	06/25/2021 20:02		Forced Outage	Failed to start as Regulating Plant.	May 1993