



Monthly Monitoring Report on Over-riding Constraints for February 2022 Billing Month

26 January to 25 February 2022

November 2022

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

1 OVER-RIDING CONSTRAINTS MONITORING
By Category and Region
By Hour Type
By Plant Type

3 PLANTS ON COMMISSIONING TEST
Testing and Commissioning Imposition and
Capacity

4 MARKET PRICE IMPACT
On Supply
On Market Clearing Price

CONTENTS OF THE REPORT

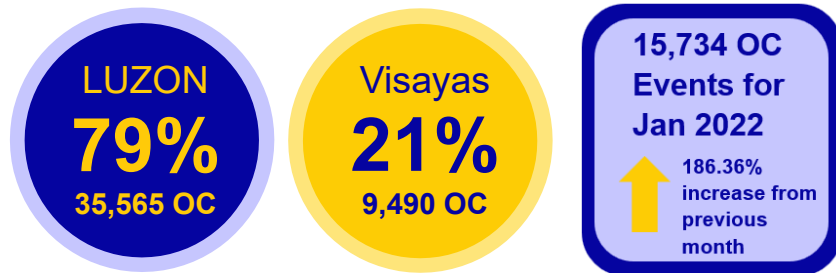


OVER-RIDING CONSTRAINTS MONITORING

BY CATEGORY AND REGION

45,055 Total Events

All of which are **non-security** limits

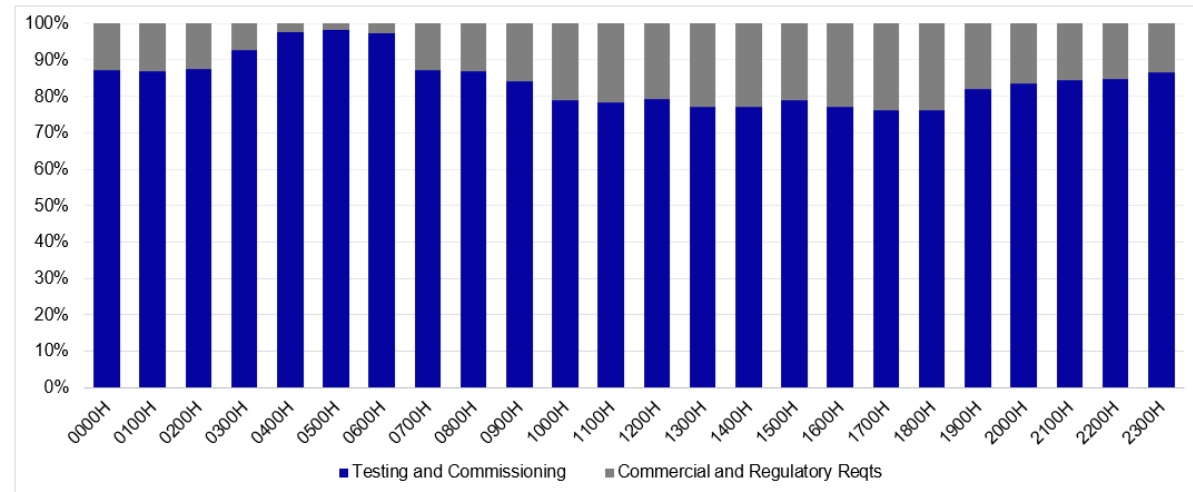


- The February 2022 billing month recorded over-riding constraints impositions with a **187.36% increase** from the previous month involving **38 Luzon** and **13 Visayas** generators. The increase in OC events is a result of **the lifting of market suspension imposition on 10 February 2022, which imposition lasted from 16 December 2021 to 17 January 2022** for Visayas except Bohol.
- Similar with the previous months, all events were **categorized under non-security limit** mainly related to **the conduct of testing and commissioning (T&C)**

Note: Under the Dispatch Protocol Manual Issue 16.0, imposition of over-riding constraints falls into 2 categories – 1) security limit i.e., MRU and other types as may be recommended by SO and 2) non-security limit. Security limit is imposed to address possible threats in system security while non-security limit is related to 1) generating unit limitations, 2) commercial and regulatory tests, and lastly, 3) conduct of testing and commissioning of plants.

The monitoring of the over-riding constraints is based on the data and information provided by MO (i.e., real time market results and MMS-input files on security limits) and SO (i.e., SO Data for Market Monitoring).

BY HOUR TYPE



Most of the occurrences of over-riding constraints imposition over a 24-hour period were due to the **conduct of plants' T&C** all throughout the period ranging from **76 to 97 percent of the time** on the account mainly of **Battery Energy Storage System (BESS)** plants.

The impositions observed during the entire 24-hour cycle varied between **T&C** (for battery, biomass, and solar), and **Commercial & Regulatory Requirements** (for coal, hydro, oil-based, and natural gas) with **lesser T&C impositions occurring during peak hours**

T&C impositions have higher occurrence than commercial and regulatory requirements between **1900H to 0600H** due to observance of **imposition of OC to solar plants** which efficiently operate during the day, notably between **0700H and 1800H**, which accounted for around **10% of total OC impositions due to VRE testing** of solar plants.

OVER-RIDING CONSTRAINTS MONITORING

BY PLANT TYPE



Testing & Commissioning

Majority of the non-security limit events recorded for the February 2022 billing month were due to the conduct of **T&C** involving **17 plants**



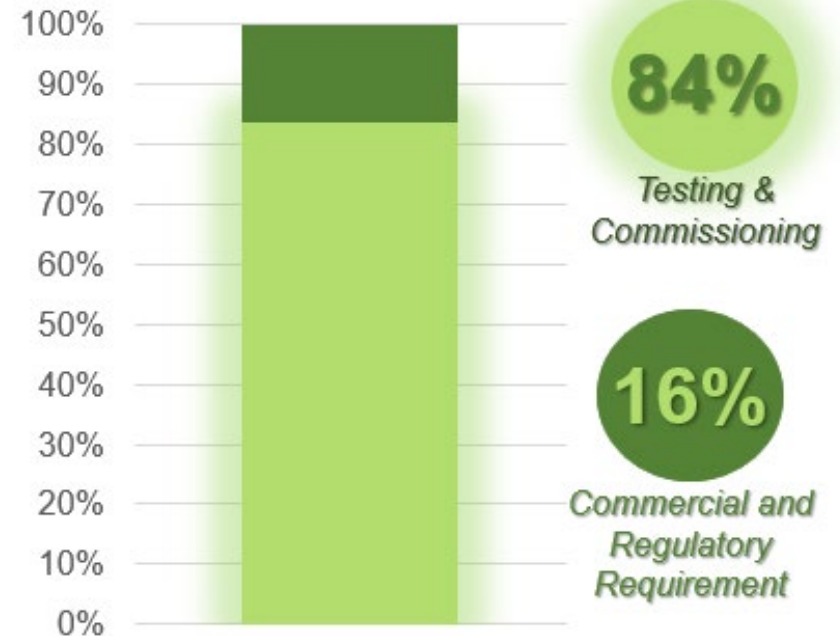
Commercial & Regulatory Requirements

Majority of incidents were related to **Commercial and Regulatory Requirements**. These events were attributable to the conduct of various tests such as Ancillary test, Heat Rate Test, Performance test, Grid Compliance test Net Dependable Capacity Test and Net Contracted Capacity Test.



Generating Unit Limitations

No over-riding constraints events related to Generating Unit limitation was noted during the billing month



Continuing the trend of the previous billing month, **almost half** of the over-riding constraints impositions were **attributable to BESS** owing to the **conduct of T&C** of **5 BESS** facilities.

Increase in over-riding constraints impositions was noted for **Biomass and Solar** plants which was a result of the **resumption of T&C period** due to issuance of clearance to extend the T&C period for 4 Biomass, 1 Hydro and 4 BESS. In addition, there had been an increase in the conduct of various performance tests for several Coal plants for the month of February 2022.

The February 2022 billing month showed an **increase in impositions of over-riding constraints under T&C** compared to the previous month as most of the plants under prolonged T&C have received an **extension to their Provisional Certificate of Approval to Connect (PCATC)**, in addition to other plants that have just **started conducting T&C**.

For the covered billing month, most of the plants on T&C were attributable to BESS, followed by Biomass and Solar, with a small percentage coming from Hydro and Oil-based plants.

Based on the updates provided by the Independent Electricity Market Operator of the Philippines (IEMOP), the following were some of the updates on the **status of power plants under extended T&C** during the February billing month:

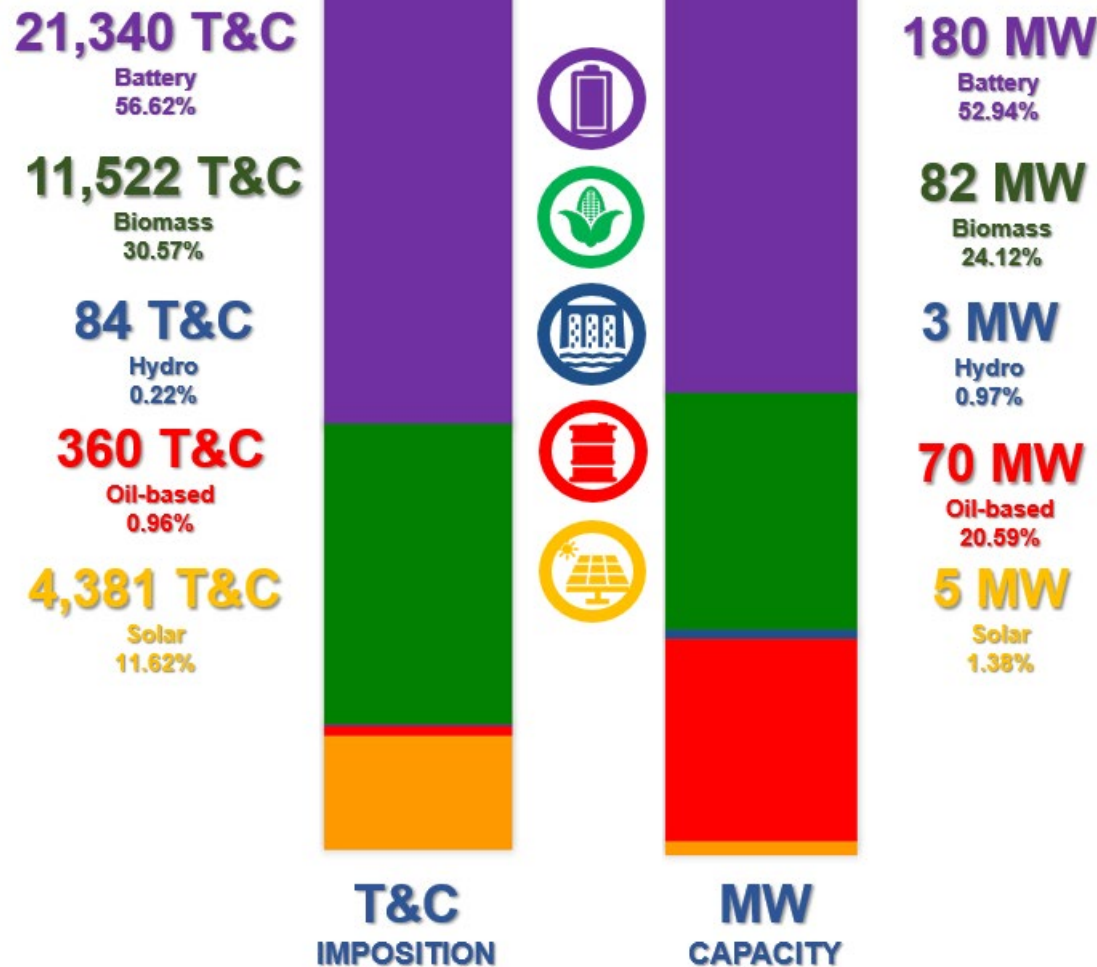
- **4 BESS, 4 Oil-based plants, and 1 Hydro plant** were given an extension on its PCATC to conduct T&C
- **1 oil-based plant** start its commercial operation on 26 February 2022

Furthermore, **1 BESS has just begun its T&C period** during the February 2022 billing month.

Note: The Department of Energy (DOE) department circular no. DC2021-06-0013 (Adopting a General Framework Governing the Test and Commissioning of Generation Facilities for Ensuring Readiness to Deliver Energy to the Grid or Distribution Network) provides a transitory provision that:

- *Allows generation companies that are already on T&C, upon effectivity of the circular (especially those plants on prolonged commissioning test), to continue to conduct commissioning test for a maximum of two (2) months after the effectivity date.*

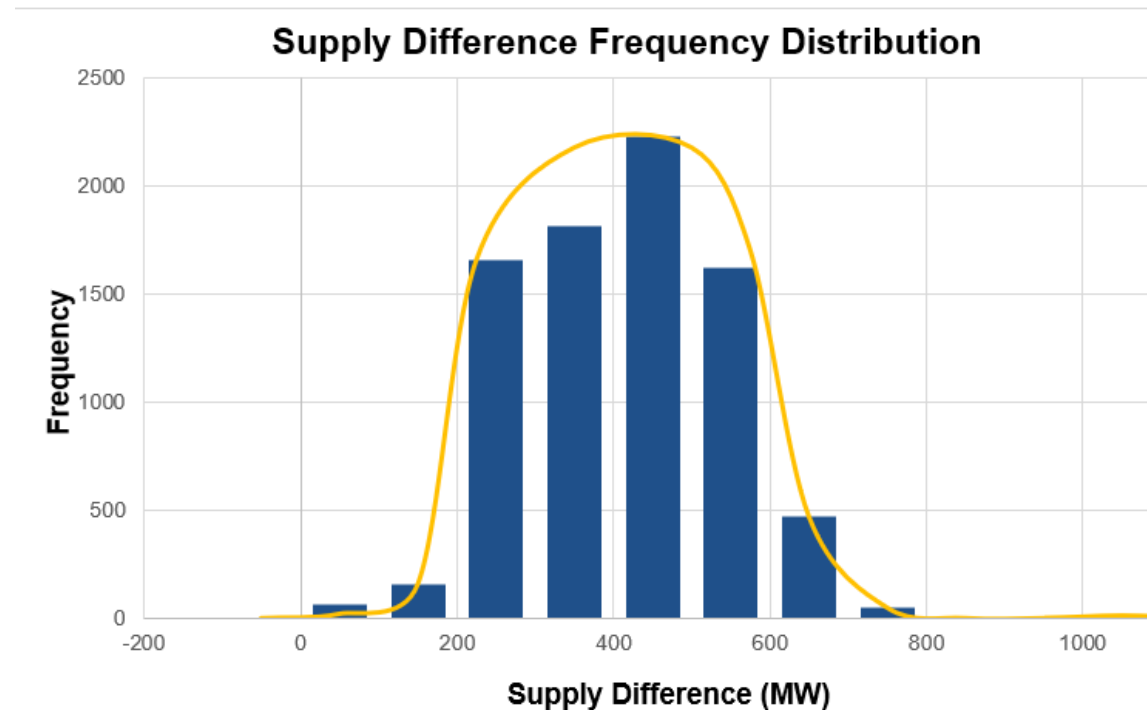
This will be in consideration in the MSC's monitoring of plants on prolonged testing commissioning test (beyond the maximum two-month period allowed also under the ERC Resolution No. 16, Series of 2014).



PLANTS ON COMMISSIONING TEST

MARKET PRICE IMPACT

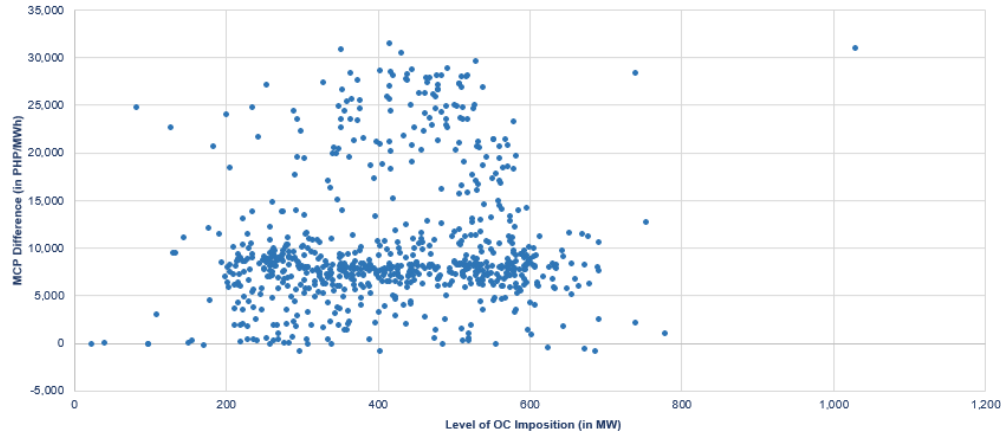
ON SUPPLY



The over-riding constraints have contributed to **additional supply** by an average of 419 MW. Similar to the previous month's trend, OC impositions resulted in the supply increase, at most, by 1,029 MW in February 2022 – an average increase of 405 MW during peak hours and 431 MW during off-peak hours.

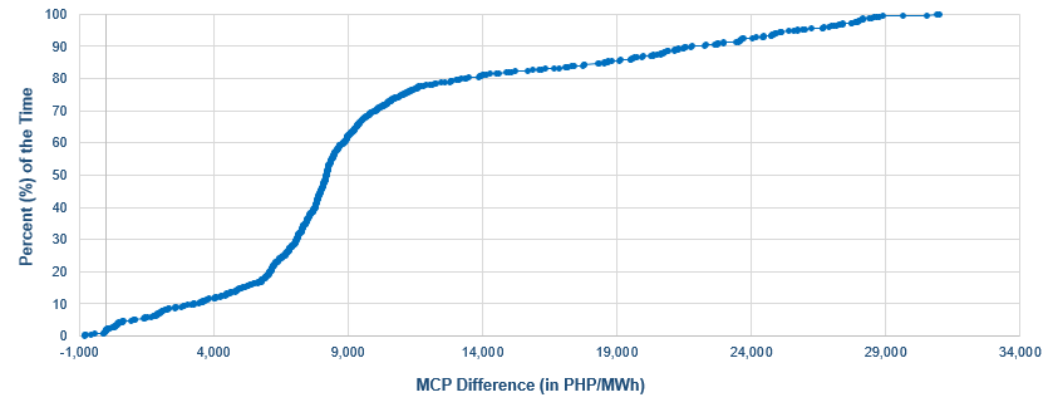
The additional capacity improvements by the OC impositions helped the supply situation. However, it is observed that this may have a price distortionary effect by arbitrarily lowering the true cost of generation, which, in the long run, may be detrimental to the market's ability to remain sustainable.

ON MARKET CLEARING PRICE



The additional MW generated by over-riding constraint impositions generally resulted to a decrease in market price. This decrease reached up to a monthly maximum of Php 31,477/MWh.

The additional MW supply caused by the OC impositions resulted into a decrease in the MCP by an average of Php 10,274/MWh



Looking on the impact of OC to the market price in terms of its percentage distribution, it showed that for 80 percent of the time, the MCP difference is less than PHP 12,000 /MWh when imposed with OC

Prices have increased by Php 368/MWh on average, less than 1% of the time