Market Surveillance & Compliance Panel
Market Watch

Issue 59
First Quarter (January to March 2021)

Market Assessment Unit
Executive Summary

As Singapore continued its re-opening efforts and progressed to Phase 3 from 28 December 2020, with the gradual relaxation of the safe management measures established due to the Coronavirus 2019 (“Covid-19”) pandemic, the National Electricity Market of Singapore (“NEMS”) also continued to observe rising energy prices for the third consecutive quarter in Q1 2021. The higher energy prices in Q1 2021 were brought about by a combination of a higher volume of generation facility maintenance and outages, an increase in fuel oil price, higher electricity demand and offer prices moving to the higher tranches.

Chart 1. USEP and WEP by Quarter

Table 1. Quarterly Outage Volume and Ancillary Service Prices

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Q1 2020</th>
<th>Q4 2020</th>
<th>Q1 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Outage Volume (MWh Cumulative)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planned Outage</td>
<td>3,580,337</td>
<td>2,826,405</td>
<td>3,126,376</td>
</tr>
<tr>
<td>Forced Outage</td>
<td>99,727</td>
<td>23,027</td>
<td>144,457</td>
</tr>
<tr>
<td><strong>Ancillary Services ($/MWh)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary Reserve</td>
<td>1.16</td>
<td>0.80</td>
<td>0.81</td>
</tr>
<tr>
<td>Contingency Reserve</td>
<td>11.67</td>
<td>9.97</td>
<td>12.04</td>
</tr>
<tr>
<td>Regulation</td>
<td>12.69</td>
<td>9.19</td>
<td>10.35</td>
</tr>
</tbody>
</table>

From Q4 2020 to Q1 2021, the Uniform Singapore Energy Price (“USEP”) increased 12.14% to $91.36/MWh and the Wholesale Electricity Price (“WEP”) went up 11.82% to $91.30/MWh (refer to Chart 1).

The rise in energy prices could be attributed to a combination of the following movements in Q1 2021 when compared to the previous quarter:

- a 10.61% increase in the planned outage volume;
- a five-fold increase in the forced outage volume;
- a 30.22% increment in the fuel oil price\(^1\) to US$357.01/MT;
- a 0.68% growth in demand to 5,936MW; and
- a 4.01 percentage points decrease in the generators’ offers submitted in lower price ranges to 79.51%.

\(^1\) Due to the unavailability of the Intermediate Fuel Oil (“IFO”) 180 price after 19 February 2020, the fuel oil price recorded from Q2 2020 (MSCP Market Watch Issue 56) was changed from the IFO 180 price to the SGX Platts Singapore Fuel Oil 180cst Index Futures.
Prices in Q1 2021

Chart 2. Vesting Contract Price Versus WEP by Quarter

After its increase in Q4 2020, the vesting contract price (essentially the LNG Vesting Price) saw a downtrend in Q1 2021 – it fell 6.88% from $139.14/MWh in Q4 2020 to $129.57/MWh in Q1 2021. The vesting contract price also showed a year-on-year slight drop of 0.58% from $157.48/MWh in Q1 2020.

Comparing the components used in the calculation of the vesting contract price in Q4 2020 and Q1 2021, the reduction in the vesting contract price in Q1 2021 could be attributed to the Previous Net Shortfall (“PNS”), the spot exchange rate and the Brent Index Price. The PNS is a settlement adjustment to account for a shortfall or surplus between the amount paid by the vesting contract consumers and the amount paid to the vesting contract generators in the previous quarter. A shortfall or surplus arises because the vesting contract quantities are determined based on expected electricity consumption data before a quarter commences, whereas the vesting contracts are settled based on actual electricity consumption data. Therefore, with a positive PNS in Q4 2020 (calculated based on amounts in Q3 2020 to be recovered in Q1 2021), it implies that the amount paid by the vesting contract consumers exceeded the amount paid to the vesting contract generators in Q3 2020 and such adjustment was then reflected as a lower vesting contract price in Q1 2021.

In addition, the Singapore dollar strengthened against the US dollar by 1.37% in Q1 2021, thus depressing the vesting contract price. Coupled with a positive PNS and a 0.81% decrease in the Brent Index Price, the vesting contract price dropped in Q1 2021.

Chart 2 also shows that the WEP remained below the vesting contract price during Q1 2020, Q4 2020 and Q1 2021. Even though the increased WEP narrowed the gap between the WEP and the vesting contract price this quarter, the WEP was still noticeably below the vesting contract price. The observation of the WEP staying consistently below the vesting contract price aligned with the Energy Market Authority (“EMA”)’s decision to phase out the vesting contract regime from 1 July 2023.

2 The Brent Index Price in a quarter is the average price of Platts Dated Brent for every business day from the first business day to the 15th calendar day of the third month in the preceding quarter. For example, to calculate the Brent Index Price for Q1, the Platts Dated Brent price on each business day from 1 October to 15 December would be included. As the periods used in calculating the Brent Index Price and the fuel oil price in a quarter are not the same, the movements in these two prices may be different.

Further details on the Brent Index Price and PNS are available in EMA’s Procedures for Calculating the Components of the Vesting Contracts.

3 The current quarter will end the day before the new quarter begins, and settlement for the last day of the current quarter will not be finalised until about a week after the new quarter begins. Consequently, it is necessary to stagger the period in which the surplus/shortfall is measured, relative to the actual three-month period. The EMA intends that the settlement adjustment period be staggered by three months. For example, for vesting contracts which apply for from January to March, the settlement adjustment will be based on the cumulative surplus or shortfall from July, August and September in the previous year.
Charts 3 and 4 show the frequency of the WEP in various price ranges, measured as a percentage of the total number of hours and a percentage of the total metered energy quantity for Q1 2021, compared to the previous quarter and the previous year.

In Q1 2020 and Q4 2020, the distribution of the WEP over time was largely the same – the WEP was between $50/MWh and $100/MWh most of the time (91.96% of the time in Q1 2020 and 91.10% of the time in Q4 2020) and was between $100/MWh and $150/MWh for less than 5% of the time. In Q1 2021, the WEP was between $50/MWh and $100/MWh over a shorter duration (78.91% of the time) and was within the range from $100/MWh to $150/MWh for 18.31% of the time during the quarter.

The distribution of the WEP in terms of total metered energy quantity in the market was similar to its distribution based on total number of hours during the quarter. In Q1 2020 and Q4 2020, most of the metered energy quantity was associated with a WEP of between $50/MWh and $100/MWh (91.74% of the total metered energy quantity in Q1 2020 and 90.58% of the total metered energy quantity in Q4 2020). In Q1 2021, the WEP was between $50/MWh and $100/MWh across 76.81% of the metered energy quantity, which was noticeably lower than the levels in Q1 2020 and Q4 2020. The WEP was within the range of $100/MWh to $150/MWh across 20.35% of the metered energy quantity, unlike the sub-5% levels in Q1 2020 and Q4 2020.

Illustrated by a rightward shift of the distribution curves from Q4 2020 to Q1 2021 in Charts 3 and 4, the WEP was observed to be in a higher price range in Q1 2021 over a longer duration and covering a larger metered energy quantity, resulting in a higher WEP recorded for the quarter. The shifts of the distribution curves were likely to be caused by changes in market parameters such as a higher volume of generation facility maintenance and outages, an increase in fuel oil price, higher electricity demand and offer prices moving to the higher tranches.

As observed in Chart 5, $r^2$ increased from 0.49 in Q4 2020 to 0.53 in Q1 2021, this upward movement implied that the metered energy quantity had a greater influence on the WEP changes in Q1 2021. Despite a lower total number of days in the quarter, there was one more day in Q1 2021 where $r$ was greater than 0.5 – 82 days (out of 90 days), compared
to 81 days (out of 92 days) in Q4 2020. This shows that the metered energy quantity and the WEP had a strong positive correlation over a longer time in Q1 2021 than in Q4 2020.

With the stronger correlation results in Q1 2021, the metered energy quantity remained the main contributing factor to the movements in the WEP. The $r$ value of 0.73 in Q1 2021 meant that changes in the metered energy quantity could account for 73.09% of the changes in the WEP during the quarter.

As shown in Chart 6, the fuel oil price climbed 30.12% from US$274.15/MT in Q4 2020 to US$357.01/MT in Q1 2021. The fuel oil price in Q1 2021 also increased 26.91% from US$281.31/MT in Q1 2020, before the impact of the Covid-19 pandemic came into full force globally. The rise in the fuel oil price was reflective of how global oil demand was picking up as various economies continued their reopening efforts and the vaccine coverage continued expanding, all in a bid to recover from the impact of the Covid-19 pandemic. Given that the fuel oil price is an input to the cost of electricity generation, the increase in the fuel oil price this quarter contributed to the rise in the WEP to $91.30/MWh.

Table 3\textsuperscript{4}. Variation Between Real-Time Dispatch Price and Forecast Price

<table>
<thead>
<tr>
<th>Month/Quarter</th>
<th>Variation Between RTS and STS ($/MWh)</th>
<th>Maximum Periodic Variation ($/MWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-20</td>
<td>-0.24</td>
<td>-99.54</td>
</tr>
<tr>
<td>Feb-20</td>
<td>0.43</td>
<td>407.59</td>
</tr>
<tr>
<td>Mar-20</td>
<td>-0.06</td>
<td>408.58</td>
</tr>
<tr>
<td>Oct-20</td>
<td>0.24</td>
<td>21.50</td>
</tr>
<tr>
<td>Nov-20</td>
<td>0.91</td>
<td>621.55</td>
</tr>
<tr>
<td>Dec-20</td>
<td>2.82</td>
<td>373.22</td>
</tr>
<tr>
<td>Jan-21</td>
<td>0.12</td>
<td>50.48</td>
</tr>
<tr>
<td>Feb-21</td>
<td>1.56</td>
<td>-170.10</td>
</tr>
<tr>
<td>Mar-21</td>
<td>0.64</td>
<td>223.30</td>
</tr>
<tr>
<td>Q1 2020</td>
<td>0.04</td>
<td>408.58</td>
</tr>
<tr>
<td>Q4 2020</td>
<td>1.32</td>
<td>621.55</td>
</tr>
<tr>
<td>Q1 2021</td>
<td>0.77</td>
<td>223.30</td>
</tr>
</tbody>
</table>

Table 3 shows the monthly and quarterly average variation in the USEP produced in the real-time dispatch schedule ("RTS") and the short-term schedule ("STS"), together with the largest variation observed in a single dispatch period during each month and quarter. A positive variation means the RTS produced a higher USEP than the STS, while a negative variation means the RTS produced a lower USEP than the STS.

The forecast USEP produced in the STS in Q1 2020 was very close to the real-time USEP, at only $0.04/MWh above the real-time USEP on average. This suggests that apart from the periods of USEP spike (sudden increase in the USEP) where price variations were greater than $400/MWh, the forecast USEP mostly mirrored the real-time USEP in Q1 2020. There were four periods of USEP spike in Q1 2020 – three periods in February 2020 and one period in March 2020.

In Q4 2020, the forecast USEP produced in the STS deviated from the real-time USEP by an average of $1.32/MWh. The larger deviation was mainly due to USEP spikes over a total of 48 periods in Q4 2020, caused by a combination of factors such as high electricity demand, high maintenance level and low offer quantity from generation companies during the affected periods.

As for Q1 2021, the average variation between the forecast USEP in the STS and the real-time USEP was $0.77/MWh, implying an improved forecast accuracy from Q4 2020. Although the price forecast accuracy in Q1 2021 still fell short of that in Q1 2020, there were less periods of USEP spikes in Q1 2021 (one period in March 2021). This could be attributed to the fact that the periodic price variations in Q1 2021 were predominantly negative, which meant that the higher forecast USEP in the STS was mitigated and did not actualise in real-time. Nonetheless, with an average variation of less than a dollar per MWh during the quarter, the forecast USEP in the STS could be considered highly indicative of the real-time USEP.

\textsuperscript{4} In 2020, the Market Assessment Unit ("MAU") conducted a public consultation and modified the Catalogue of Data and the Catalogue of Monitoring Indices to ensure that the information collected remains relevant to market monitoring. The Market Surveillance and Compliance Panel ("MSCP") has adopted the updated catalogues and included its analysis of the additional data and indices in the MSCP Annual Report 2020. Subsequently, the MSCP Market Watch was also updated to include such additional data and indices, where appropriate, in Tables 3 and 4, and Charts 18 and 19.
Demand and Supply in Q1 2021

As observed in Chart 7, the average forecast demand continued growing, by 0.68% from 5,896MW in Q4 2020 to 5,936MW in Q1 2021. Although the average forecast demand had been increasing since Q3 2020, the demand remained below the pre-pandemic level of 6,010MW in Q1 2020, indicating that the NEMS was still recovering from the impact of the Covid-19 pandemic.

The average actual demand also climbed 0.93% from 5,822MW in Q4 2020 to 5,876MW in Q1 2021.

The stronger demand in Q1 2021 was likely due to:

- further re-opening (Phase 3) from 28 December 2020, characterised by the gradual relaxation of the safe management measures established due to the Covid-19 pandemic; and
- higher peak demand recorded in Q1 2021 – the peak forecast demand was 7,079MW and the peak actual demand was 7,099MW (refer to Chart 8). These peak levels were even higher than those observed in pre-pandemic Q1 2020; the peak forecast demand was 0.66% higher and the peak actual demand was 1.44% higher.

### Chart 7. Average Forecast and Actual Demand

<table>
<thead>
<tr>
<th>Q1 2020</th>
<th>Q4 2020</th>
<th>Q1 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecast Demand (MW)</td>
<td>Actual Demand (MW)</td>
<td>Forecast Demand (MW)</td>
</tr>
<tr>
<td>6,010</td>
<td>5,910</td>
<td>5,896</td>
</tr>
</tbody>
</table>

### Chart 8. Peak Forecast and Actual Demand

<table>
<thead>
<tr>
<th>Q1 2020</th>
<th>Q4 2020</th>
<th>Q1 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak Forecast Demand (MW)</td>
<td>Peak Actual Demand (MW)</td>
<td></td>
</tr>
<tr>
<td>7,032</td>
<td>6,999</td>
<td>6,883</td>
</tr>
</tbody>
</table>

### Table 2. Quarterly Average Supply and Supply Cushion

<table>
<thead>
<tr>
<th></th>
<th>Q1 2020</th>
<th>Q4 2020</th>
<th>Q1 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Supply (MW)</td>
<td>7,883</td>
<td>7,622</td>
<td>7,865</td>
</tr>
<tr>
<td>Supply Cushion (%)</td>
<td>23.74</td>
<td>22.63</td>
<td>24.54</td>
</tr>
</tbody>
</table>

Table 2 shows a 3.20% increase in the quarterly average supply from 7,622MW in Q4 2020 to 7,865MW in Q1 2021. The supply growth could be due to the generators’ behaviour, as they responded to the higher forecast demand by offering more generation to the market.

As supply growth outpaced demand growth, the resultant supply cushion strengthened 1.90 percentage points from 22.63% in Q4 2020 to 24.54% in Q1 2021. The periods of USEP spike also decreased from 48 periods in Q4 2020 to one period in Q1 2021, indicating a lower occurrence of weak supply cushion in Q1 2021.

### Chart 9. Offers At or Below $100/MWh

<table>
<thead>
<tr>
<th></th>
<th>Q1 2020</th>
<th>Q4 2020</th>
<th>Q1 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offers (% of Total Offer Quantity)</td>
<td>81.41</td>
<td>83.52</td>
<td>79.51</td>
</tr>
</tbody>
</table>

Chart 9 shows that the offers priced at or below $100/MWh made up a smaller proportion of the total offer quantity in Q1 2021, at 79.51% of the total offer quantity. The lower volume of cheaper offers was likely a reason for the shift in the WEP to a higher price range mentioned in Chart 4.

*Pre-pandemic in this report refers to the period up to Q1 2020. Q2 2020 would be considered the Covid-19 pandemic period.*
Chart 10. Monthly Average Variation Between Real-Time Dispatch Schedule and Forecast Load

Chart 10 shows the load variations in the pre-dispatch schedule ("PDS") and STS compared to the RTS. The average load variations in Q1 2021 were larger than those in Q4 2020.

The larger variations in Q1 2021 could be a result of consumers and businesses making additional changes to their electricity consumption behaviour, as the Singapore Government further eased the safe management measures previously imposed from 28 December 2020. Hence, a larger discrepancy between forecast schedules and the RTS was expected, with the real-time load being higher than the forecast loads.

Chart 11. Quarterly Average Variation Between Real-Time Dispatch Schedule and Metered Energy Quantity

Q1 2020 observed the smallest variation observed in the NEMS in the quarterly average load variation between the RTS and the metered energy quantity (the actual generation recorded). A possible reason for the diminishing variation would be a progressive reduction in metering errors. As the EMA work with the SP Group to install advanced meters across Singapore and encourage households to submit their own meter readings, the meter readings become more accurate. Therefore, the variation between the RTS and the metered energy quantity slipped below 2% in Q1 2021 to 1.74%, a decrease from 1.96% in Q4 2020 (refer to Chart 11).
In Q1 2021, the USEP and the supply cushion moved in opposite directions, which goes in line with the intuitive relationship between these two parameters. When the supply cushion weakened, the USEP rose to reflect the tight supply in the system. This shows that movements in the USEP were heavily guided by the movements in electricity demand and supply throughout the quarter. The monthly average supply cushion fell from 26.42% in January 2021 to 23.56% in March 2021, this tightened supply condition was reflected in the USEP when it rose from $77.81/MWh in January 2021 to $103.35/MWh in March 2021.

Chart 13 shows the quarterly average capacity ratios of the four generation types in the NEMS. The movements in the capacity ratios were in line with the higher demand in Q1 2021 (refer to Chart 7), as the increased demand for electricity called for higher utilisation from the main generation types.

Compared to Q4 2020, the capacity ratio of combined cycle gas turbine (“CCGT”) units increased 0.26 percentage point to 62.42% in Q1 2021 and the capacity ratio of other (“OT”) units increased 3.47 percentage points to 50.09%. A very small quantity was scheduled from open cycle gas turbine (“OCGT”) units in Q1 2021, specifically in March 2021, resulting in a minimal capacity ratio of 0.003% (rounded off as 0.00% in Chart 13). Given the costly operation of OCGT units, they are seldom scheduled to generate electricity. The previous time OCGT units were scheduled was November 2020.
The breakdown of market share in the NEMS based on metered energy quantity and maximum generation capacity by generation company and generation type is shown in Charts 14 and 15 respectively.

As seen in Chart 14, the market share based on metered energy quantity shows that the three largest generation companies held 51.30% of the total market share in Q1 2021, a further dilution from 51.95% in Q4 2020 even after a consistent contraction throughout 2020.

The distribution of market share based on generation capacity, as shown in Chart 15, was more concentrated – the three largest generation companies continued to hold 60.43% of the total market share in Q1 2021, for the third consecutive quarter. This combined market share remained unchanged as there was no change in the generation registered facilities in the market.

Most of the generation in the NEMS is produced by CCGT units (98.01% of the metered energy quantity in Q1 2021 as shown in Chart 16), as the market moves towards the most efficient generation technology (89.72% of the total maximum generation capacity in Q1 2021 as shown in Chart 17).

Chart 16 shows that in Q1 2021, OT units gained a market share of 0.32 percentage points in terms of metered energy quantity as one OT unit returned from maintenance in January 2021 and was then scheduled to generate electricity. The lower market share of CCGT units in Q1 2021 was caused by an increase in its planned outage volume during the quarter.

As to the market share based on maximum generation capacity, the distribution in Q1 2021 remained the same because there was neither entry nor exit of any generation registered facility in the NEMS.
The single pivotal supplier test is an assessment of structural market power. A generation company is considered a pivotal supplier for a particular dispatch period if the total electricity demand in the NEMS during that dispatch period cannot be fulfilled without including the electricity supply from this generation company.

Chart 18 shows the number of dispatch periods where a single pivotal supplier is present in the NEMS for each month in Q1 2020, Q4 2020, and Q1 2021. The generation companies are arranged in descending order according to the total number of periods where each of them was the single pivotal supplier in Q1 2021.

Based on the three quarters under review, the single pivotal supplier was rotated between three generation companies only and would exist in approximately 10% of the total number of periods in a quarter. G4 was the main single pivotal supplier; it occupied 335 out of 418 single pivotal supplier periods in Q1 2021. There was a total of 4,320 dispatch periods in Q1 2021. G4’s single pivotal supplier periods reduced to two in December 2020 as its generation facilities were under planned maintenance and not offered to the market.

In the NEMS, generation facilities are dispatched by merit order – the generation facilities are ranked according to their offers, those with the lowest offer prices will then be dispatched first to meet the electricity demand and those with higher offer prices will be dispatched only when the electricity demand is high enough. A generation company is deemed a price setting generation company if its generation facility provides the marginal unit of electricity to meet the electricity demand in the NEMS. A price setter could potentially influence the market clearing price.

Chart 19 shows the monthly breakdown of price setting generation companies in Q1 2020, Q4 2020 and Q1 2021. The generation companies are arranged in descending order according to their share of the total number of periods where there was a price setting generation company in Q1 2021.

G3 was the main price setting generation company in the market; its price setting frequency grew from 38.19% of the total number of price setting periods in Q4 2020 to 50.23% in Q1 2021.

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6 The presence of structural market power depends on the nature of the market, for example, the number of market participants, barriers to entry and product differentiation, but does not depend on the market participants' behaviour. This means that structural market power could exist even if the market participants do not take any action to influence the market price.

7 Although considered the price setter, a generation company is only deemed so because its generation facility provides the marginal unit of electricity and the corresponding price of this marginal unit of electricity is taken as the market clearing price. Apart from the generation companies’ offer prices, the marginal unit of electricity cleared depends on various market factors like electricity demand and supply.
The EMA introduced the demand response programme in 2016 to enable electricity demand to be met effectively, promote better investment in the NEMS, and improve system reliability when electricity supply is low. The demand response programme allows load providers to curtail their load (electricity consumption) in exchange for payment. The licensed load providers must fulfil at least 100% of the ir scheduled load curtailment to be paid. Load providers who only partially comply with their scheduled curtailment will not receive any payment and will incur a penalty if they comply with less than 95% of their scheduled curtailment.

Table 4 lists the demand response activations in Q1 2020, Q4 2020 and Q1 2021, and the associated USEP and counterfactual USEP (“CUSEP”) during those periods. The CUSEP is the USEP calculated by the market clearing engine assuming that there would be no dispatchable energy bid from load providers. The CUSEP is usually higher than the USEP – demand response has a dampening effect on the USEP as it reduces the likelihood of scheduling more expensive generation facilities to meet electricity demand.

In Q1 2021, demand response was activated for two periods, the same as in Q1 2020. At periods 23 and 24 on 8 March 2021, there was high demand, low supply and a resultant weak supply cushion. Demand response was activated to ease the strain on the system. Demand averaged at 6,810MW and supply cushion averaged at 10.79% for periods 23 and 24, compared to the day averages of 6,272MW and 19.1%.

There were 10 periods of demand response activation in Q4 2020, the highest frequency among the three quarters. Q4 2020 also recorded the most USEP spikes among the three quarters, at 48 periods (four periods in Q1 2020 and one period in Q1 2021). Since demand response is activated to cater for high demand, demand response activation is closely related to a USEP spike, which tends to occur when demand is high. The highest USEP in Q4 2020 occurred at period 22 on 20 November 2020, at $1,254.04/MWh. This was also the highest periodic USEP in 2020 and the highest periodic USEP since $1,354.86/MWh at period 23 on 16 February 2019. The high USEP was brought about by low volume of offers from generation companies, high maintenance level and weak supply cushion.
## Compliance Statistics for Q1 2021

### Potential Breaches of the Market Rules

- **76 cases in total**
  - 0 self-report
  - 76 referrals/complaints
  - 0 MSCP initiative

### Determinations*

- **76 determinations in total**
  - 9 cases determined to be in breach
  - 0 case determined to take no further action
  - 66 cases determined not to be in breach
  - 1 case in which the MSCP made a determination on an event of default

### Enforcement

- **10 cases in total**
  - 8 financial penalties
  - 1 non-compliance letter
  - 1 suspension order
  - 1 termination order
  - 0 other MSCP order
  - $27,500 of financial penalty imposed
  - $11,500 of costs awarded

*This section includes determinations of cases referred to the MSCP in previous quarters.

The MSCP issued four rule breach determinations in Q1 2021 to:

1. Tuas Power Generation Pte. Ltd. for its failure to comply with gate closure rules on 30 September 2020;
2. ExxonMobil Asia Pacific Pte. Ltd. for its failure to comply with gate closure rules on 2 October 2020;
3. Energy Market Company Pte Ltd for its failure to release short-term schedule on 16 November 2020; and

The MSCP issued two other determinations in Q1 2021 to:

1. **8** On 5 February 2021, the MSCP conducted and concluded a suspension hearing concerning the event of default by Sun Electric Energy Assets Pte. Ltd. (“SEEAPL”) and determined to issue a suspension order to SEEAPL; and
2. **9** On 17 March 2021, the MSCP issued a termination order to SEEAPL on the same event of default related to the issuance of the suspension order on 5 February 2021.
The MSCP Market Watch is a quarterly report prepared by the Market Assessment Unit (“MAU”) of EMC and submitted to the MSCP. The report summarises the MAU's day-to-day monitoring, cataloguing and evaluation activities and analyses, and compares the market performance for the current quarter with the quarter a year ago and the previous quarter.

All prices and percentages in this report are rounded off to two decimal places.

The User Guide to MSCP Market Watch provides a glossary of the terms used in the MSCP Market Watch among other information to facilitate readers’ understanding.

Market Surveillance and Compliance Panel

The MSCP is established by the EMC Board in accordance to section 2.6 of Chapter 3 of the Singapore Electricity Market Rules.

The MSCP, with the assistance of the MAU, monitors and investigates the conduct of market participants, the market support services licensee, EMC and the Power System Operator and the structure and performance of the wholesale electricity markets.

The MSCP comprises the following members:

- T P B Menon, Chair
- Lee Keh Sai
- Philip Chua
- Professor Euston Quah
- Professor Walter Woon

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