National Electricity Market of Singapore

Market Surveillance & Compliance Panel Market Watch

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Second Quarter (April to June 2024)

Market Assessment Unit

Executive Summary

Energy prices in the National Electricity Market of Singapore ("NEMS") saw a reversal from the decline observed in the previous quarter, while the prices of ancillary services largely continued their ascent from Q1 2024. Propelled by higher offer prices in the midst of the average demand hitting a fresh all-time high, the market registered greater price volatility in the resulting tighter supply cushion environment compared to the previous quarter. The increased frequency of Demand Response ("DR") activations and Temporary Price Cap ("TPC") application this quarter is also indicative of the market volatility. Nevertheless, energy prices remained muted relative to those in the same quarter last year before the introduction of the TPC mechanism.

Chart 1. USEP and WEP by Quarter

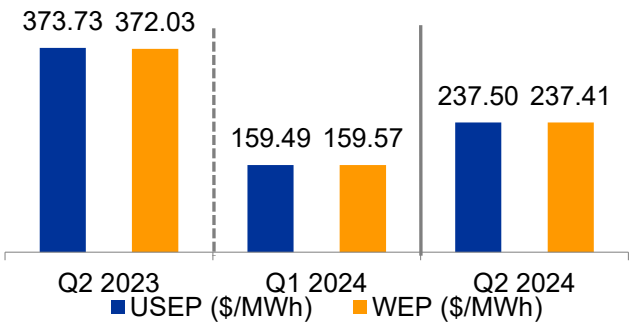


Table 1. Quarterly Outage Volume and Ancillary Service Prices

Quarter	Q2 2023	Q1 2024	Q2 2024
Total Outage Volume (MWh Cumulative)			
Planned Outage	4,490,522	2,915,783[1]	3,150,199
Forced Outage	130,396	45,871	41,009
Ancillary Services ($/MWh)			
Primary Reserve	0.38	1.08	4.17
Contingency Reserve	19.18	19.76	33.73
Regulation	51.57	26.71	38.82

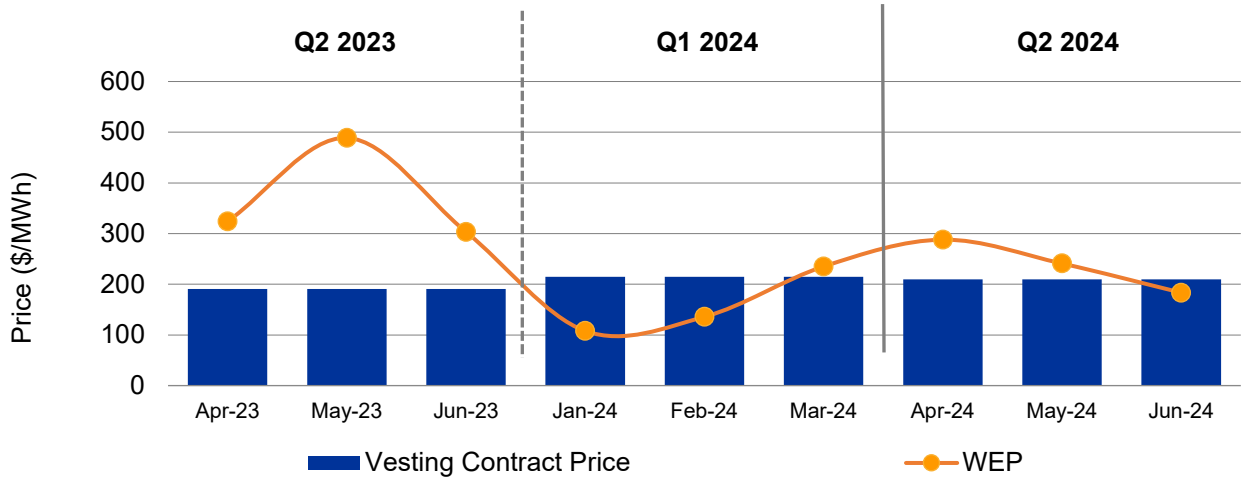
On quarter-on-quarter ("QoQ") comparison, the Uniform Singapore Energy Price ("USEP") and the Wholesale Electricity Price ("WEP") surged 48.92% and 48.79% to $237.50/MWh and $237.41/MWh respectively. The energy price hikes were registered when (1) the energy offer prices became pricier, on par with a higher fuel oil price, and (2) the supply cushion was set back by a historically high average demand outweighing a moderate increase in supply. The prices of ancillary services were elevated in tandem with the higher USEP this quarter, which was also reflective of the lower ancillary service capability brought on by a tighter supply cushion. On the back of higher reserve requirements and pricier reserve offers, primary and contingency reserve prices climbed 285.12% and 70.72% to $4.17/MWh and $33.73/MWh correspondingly. In addition, the number of periods with contingency reserve shortfall increased from 21 in Q1 2024 to 28 in Q2 2024. For regulation, despite the slight downward revision of its requirement with effect from 1 February 2024, regulation price cleared 45.33% higher at $38.82/MWh due to (1) regulation offers becoming pricier, and (2) the number of periods with regulation shortfall rising from 7 in Q1 2024 to 10 in Q2 2024.

In contrast, on year-on-year ("YoY") comparison, USEP and WEP tumbled 36.45% and 36.18% respectively. Amid a higher fuel oil price compared to the same quarter last year, the energy offers were more concentrated in the lower and higher offer price ranges, i.e., below $200/MWh and greater than $3,000/MWh correspondingly. These extreme energy offer price movements also coincided with the introduction of the new vesting regime framework with effect from 1 July 2023. More importantly, the introduction of the TPC mechanism with effect from 1 July 2023 mitigated prolonged duration of higher USEP. For ancillary services, only regulation price fell, by 24.73%. On the other hand, primary reserve price increased nearly elevenfold while contingency reserve price jumped 75.85%. In addition to YoY higher reserve requirements and pricier reserve offers, the number of periods with contingency reserve shortfall increased from 27 in Q2 2023 to 28 in Q2 2024. In spite of regulation offers becoming pricier YoY (similar to reserve offers), regulation requirement fell YoY and the number of periods with regulation shortfall dropped from 20 in Q2 2023 to 10 in Q2 2024.

[1] Corrected from 2,919,095 MWh published in MSCP Market Watch Issue 71: First Quarter (January to March 2024)

Prices in Q2 2024

Chart 2. Vesting Contract Price Versus WEP by Quarter



Vesting contracts[2] were introduced by the Energy Market Authority ("EMA") with the objective of curbing the market power of generation companies and providing a cushion to consumers in the event of higher prices.

In Q2 2024, the WEP came in at $237.41/MWh, which was $27.75/MWh above the vesting contract price of $209.66/MWh. This was the first time the WEP cleared above the respective vesting contract price for the quarter since Q3 2023, when the current five-year vesting regime framework took effect on 1 July 2023. This was largely attributed to the QoQ higher USEP arising from demand and supply conditions.

The gap between the WEP and the respective vesting contract price in the quarter narrowed on QoQ basis (from $54.87/MWh in Q1 2024) and on YoY basis (from $181.50/MWh in Q2 2023 under the previous vesting regime framework), underlining the stabilising effect of the current vesting regime on energy prices.

Despite a 11.78% QoQ increase in fuel oil price, the vesting contract price slipped 2.23% from $214.44/MWh in Q1 2024 to $209.66/MWh in Q2 2024. This suggested that other non-fuel components used in the calculation of the vesting contract price might have declined.

[2] EMA | Vesting Contracts

Chart 3. Distribution of WEP Over Time

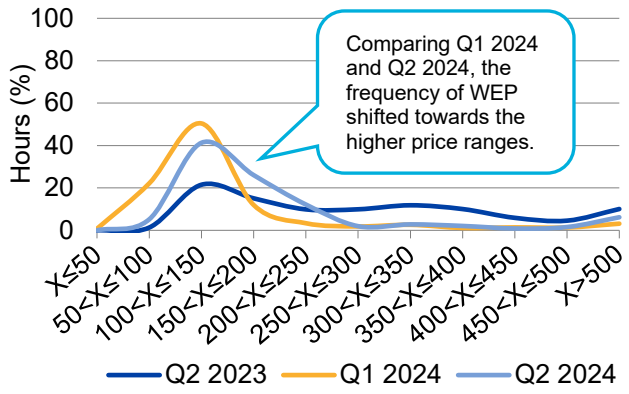
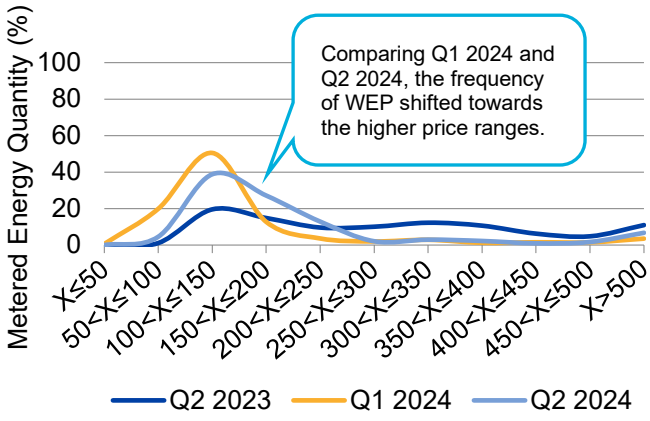


Chart 4. Distribution of WEP Over Total Metered Energy Quantity



Charts 3 and 4 show the frequency of the WEP across different price ranges, measured as a percentage of the total number of hours and a percentage of the total metered energy quantity for Q2 2024, compared to the previous quarter and the same quarter in the preceding year.

In terms of the distribution weighted by hours, the peak of WEP distribution, i.e., the frequency of WEP ranging between $100/MWh and $150/MWh, was 41.28% in Q2 2024. This was lower QoQ (from 50.41% in Q1 2024) and higher YoY (from 21.50% in Q2 2023). The frequency of WEP less than $150/MWh plunged from 73.31% in Q1 2024 to 46.45% in Q2 2024. Nevertheless, it was more than twice that of the 22.80% level in Q2 2023. The shifts in the distribution mirrored the 48.79% QoQ increase and the 36.18% YoY decline in the WEP.

The distribution pattern of the WEP weighted by metered energy quantity was not only similar to its distribution weighted by hours, but also trended in a similar manner on QoQ and YoY basis. This suggested that the actual demand profile was largely consistent throughout the quarter with minor fluctuations.

Chart 5. Correlation Between WEP and Metered Energy Quantity

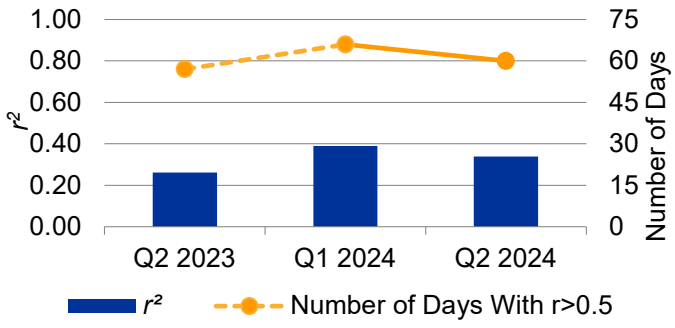


Chart 6. WEP Versus Fuel Oil Price

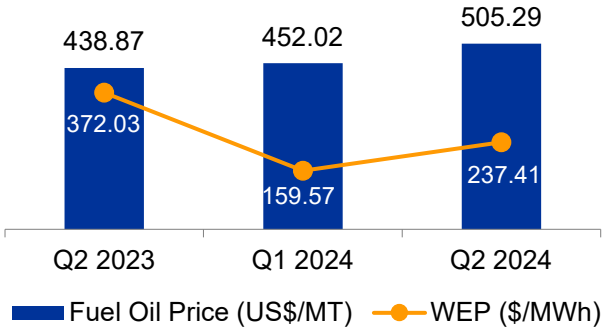


Chart 5 shows the proportion of variance in the WEP which could be explained by changes in the metered energy quantity, as measured by r^2. The correlation between the metered energy quantity and the WEP weakened with a lower r^2 of 0.34 in Q2 2024 compared to 0.39 in Q1 2024. Correspondingly, there were 60 out of 91 days in Q2 2024 when r was greater than 0.5, compared to 66 out of 91 days in Q1 2024. This implies that the metered energy quantity and the WEP had a strong positive correlation over a limited time in Q2 2024 than in Q1 2024.

Chart 6 shows the WEP increasing 48.79% QoQ and decreasing 36.18% YoY, despite the fuel oil price rising 11.78% QoQ and 15.13% YoY. This implied the greater influence of other factors on energy prices, such as changes in the offer pricing of generators and TPC application.

Table 2. Variation Between Real-Time Dispatch Price and Forecast Price

Month/Quarter	Variation Between RTS and STS ($/MWh)	Maximum Periodic Variation ($/MWh)
Apr-23	5.19	3,187.11
May-23	14.65	1,899.24
Jun-23	9.28	4,107.30
Jan-24	0.34	100.12
Feb-24	3.88	248.13
Mar-24	0.83	4,042.31
Apr-24	19.22	2,874.61
May-24	0.61	3,501.13
Jun-24	9.50	4,014.13
Q2 2023	**9.71**	**4,107.30**
Q1 2024	**1.68**	**4,042.31**
Q2 2024	**9.78**	**4,014.13**

Table 2 shows the monthly and quarterly average variation in the USEP produced in the real-time dispatch schedule ("RTS") and the short-term schedule ("STS"), along 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 average variation between the real-time USEP and the forecast USEP in the STS surged from $1.68/MWh in Q1 2024 to $9.78/MWh in Q2 2024, which was close to the $9.71/MWh level in Q2 2023. The trading periods with the maximum price variations were usually observed when the market experienced tight supply cushion. The maximum price variation in Q2 2024 was $4,014.13/MWh, which occurred in Period 22 on 27 June (Thursday). In the STS, the supply cushion and USEP were forecasted to be 2.8% and $574.16/MWh respectively. Following the capacity withdrawal of a major CCGT unit from that period which outweighed a mere 0.46% drop in demand in the RTS compared to the STS, the supply cushion collapsed to -0.47%, raising the USEP to the energy price cap of $4,500.00/MWh alongside an energy deficit.

Demand and Supply in Q2 2024

Chart 7. Average Forecast and Actual Demand Versus Average Temperature

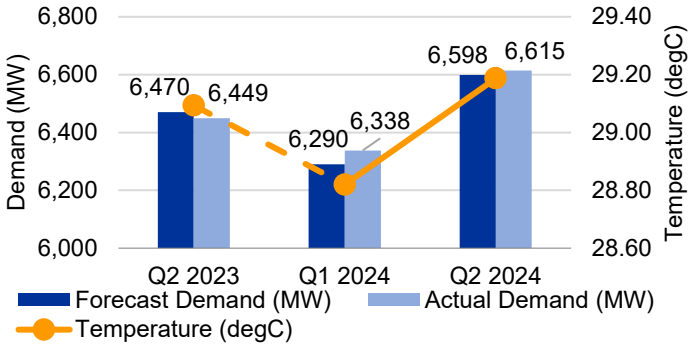


Chart 8. Peak Forecast and Actual Demand

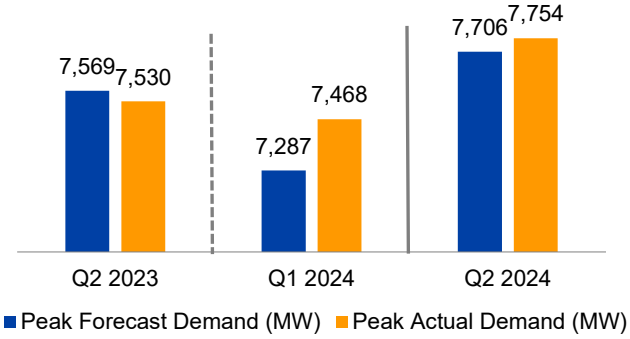
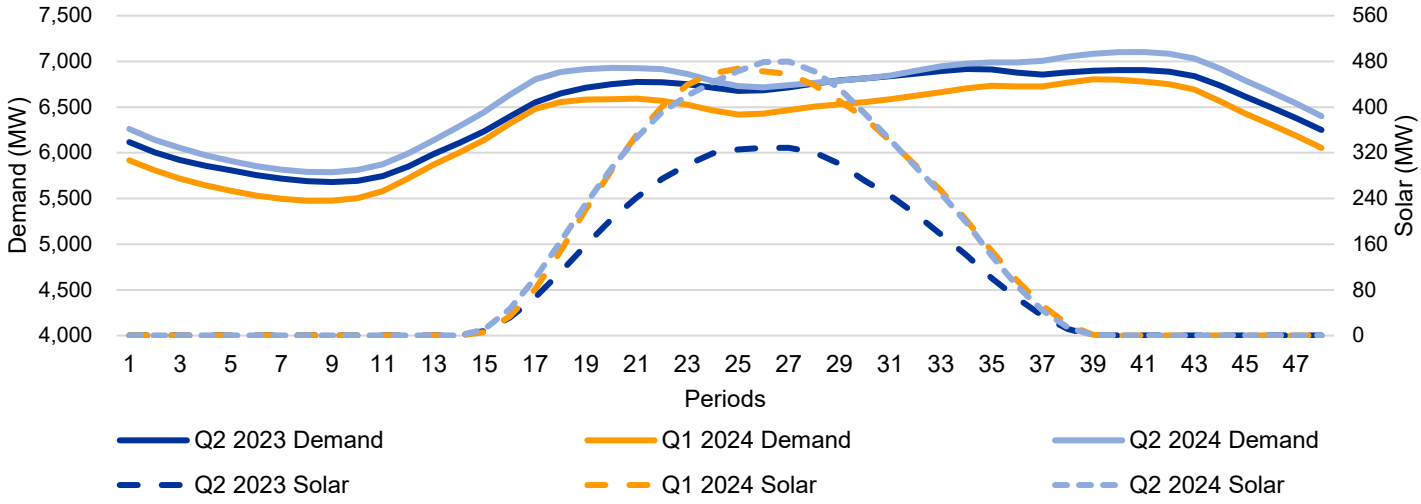


Chart 7 shows each of the average forecast demand and actual demand moving in tandem with the average temperature, on both QoQ and YoY basis. When the average temperature rose by 0.37°C from Q1 2024, the average forecast demand grew 4.91% while the average actual demand expanded 4.37%. Similarly, compared to Q2 2023, the average forecast demand and actual demand were 1.98% and 2.57% higher, alongside a 0.09°C higher average temperature. Another factor consistent with the higher demand was the Singapore Purchasing Managers' Index (PMI), a key barometer of the Singapore manufacturing economy; the PMI largely registered above 50.0 in both Q2 2024 and Q1 2024, but was below 50.0 throughout Q2 2023.

Notably, among the top five highest monthly average forecast demand so far, the average forecast demand in April, May and June 2024 took the second, first and fourth spot respectively. The average forecast demand in May and June 2023 took the remaining third and fifth spot respectively. As a result, the average forecast demand and actual demand in Q2 2024 at 6,598 MW and 6,615 MW surpassed their respective historical peaks achieved in Q2 2023.

In line with the quarterly average QoQ and YoY trends in Chart 7, Chart 8 shows the peak forecast demand jumping by 5.76% QoQ and 1.82% YoY, and the peak actual demand rising by 3.83% QoQ and 2.96% YoY. It is noteworthy that the forecast demand for a total of nine periods in April and May 2024 were among the top ten highest periodic forecast demand since market start.

Chart 9. Average Forecast Demand and Average Solar Generation Periodic Profiles



In Q2 2023, the highest average forecast demand was in Period 34 at 6,916 MW while the highest average solar generation was in Period 27 at 329 MW. Then, in Q1 2024, the highest average forecast demand was in Period 39 at 6,804 MW while the highest average solar generation was in Period 25 at 467 MW.

In Q2 2024, the average forecast demand peaked in Period 41 at 7,102 MW while the average solar generation peaked in Period 27 at 480 MW. This indicated a gradual rightward shift of the highest average forecast demand amid an increasing contribution of solar generation during the day, as well as an increasing average forecast demand arising from warmer weather and expansion in Singapore manufacturing activity.

Table 3. Quarterly Average Supply and Supply Cushion

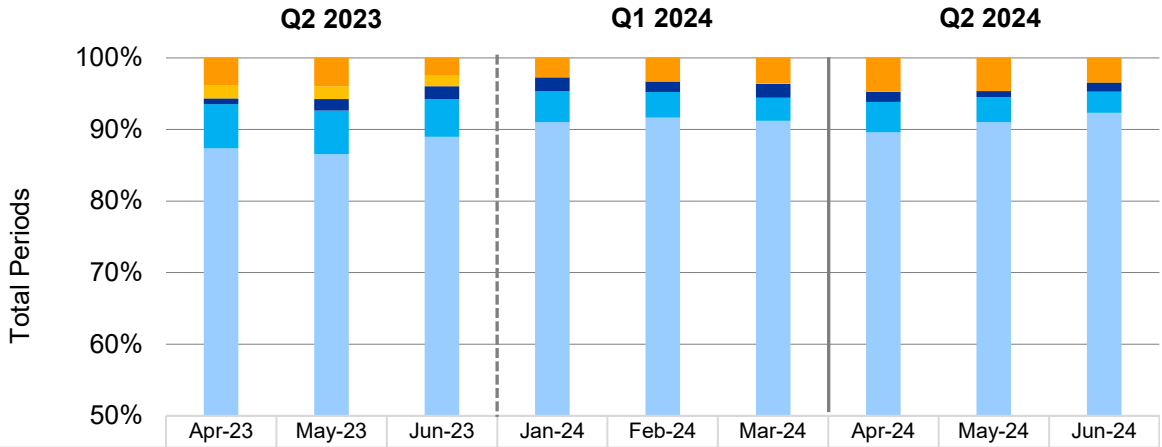
Quarter	Q2 2023	Q1 2024	Q2 2024
Average Supply (MW)	7,326	7,256	7,503
Supply Cushion (%)	11.77	13.41	12.12

Compared to Q1 2024, the total outage volume rose 7.75% to 3,191,208 MWh. On the gas curtailment[3] front, which is the percentage reduction in total piped natural gas supply to Singapore, the proportion of periods with gas curtailment swelled from 0% in Q1 2024 to 12.09% in Q2 2024. Nevertheless, the supply averaged 3.40% higher at 7,503 MW.

Compared to Q2 2023, the total outage volume was 30.94% lower and the proportion of periods with gas curtailment alleviated from 53.83% in Q2 2023 to 12.09% in Q2 2024. The overall supply came in 2.41% higher.

The relatively high demand in Q2 2023 and in Q2 2024 overshadowed the limited growth in supply in those quarters, which was reflected in the supply cushion levels decreasing from the preceding quarters respectively.

Chart 10. Trend Of Energy Offer Price Proportion



	Apr-23	May-23	Jun-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24
≥ $3,000/MWh	3.86	3.96	2.48	2.71	3.28	3.61	4.70	4.63	3.43
≥ $1,000/MWh and < $3,000/MWh	1.80	1.80	1.47	0.00	0.00	0.05	0.03	0.02	0.00
≥ $500/MWh and < $1,000/MWh	0.83	1.61	1.81	1.91	1.47	1.91	1.42	0.81	1.27
≥ $200/MWh and < $500/MWh	6.17	6.06	5.27	4.36	3.57	3.21	4.25	3.52	2.97
< $200/MWh	87.35	86.57	88.98	91.03	91.68	91.22	89.61	91.02	92.33

The proportion of energy offers priced below $200/MWh averaged 90.98% in Q2 2024, which was lower QoQ (from 91.31% in Q1 2024) but higher YoY (from 87.78% in Q2 2023). On the contrary, the proportion of energy offers priced greater than $3,000/MWh elevated to 4.25% in Q2 2024, up from 3.20% in Q1 2024 and from 3.43% in Q2 2023.

On the whole, amid the fuel oil price rising QoQ and YoY, the energy offers were pricier in Q2 2024 than in Q1 2024, whereas the energy offer price movements were more extreme in Q2 2024 than in Q2 2023. This suggested a change in the offer pricing of generators over time.

[3] Given that CCGT units mainly operate on natural gas, gas curtailment occurrences might result in a shortage of the main fuel for CCGT units, thus reducing the capacity offered to the market.

Chart 11. Monthly Average Variation Between Real-Time Dispatch Schedule and Forecast Load

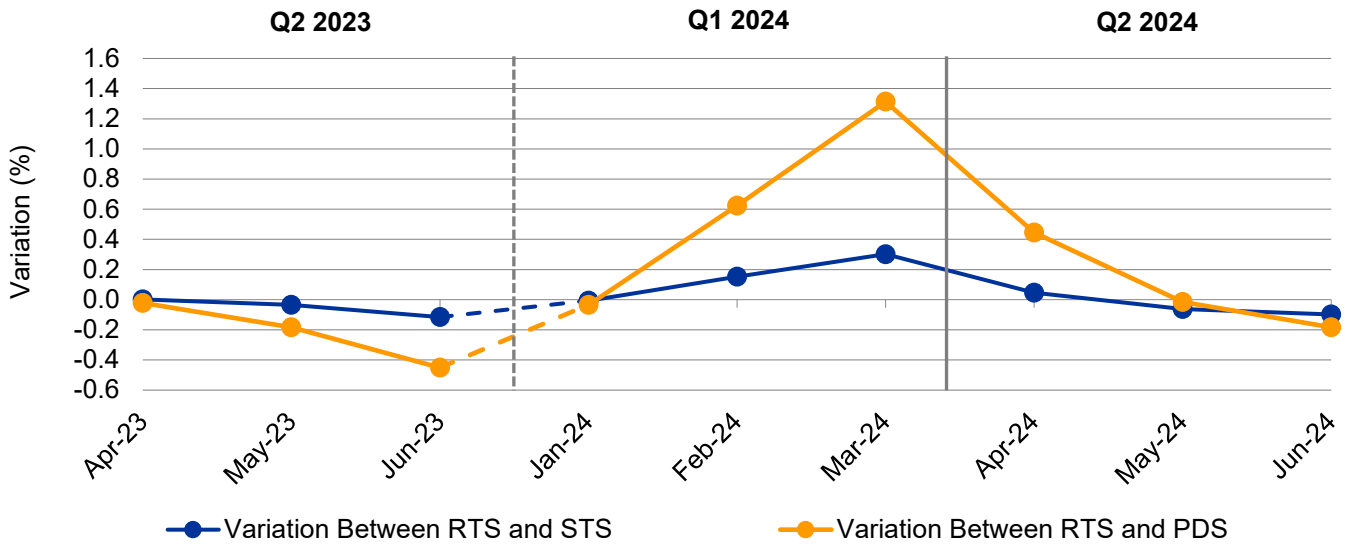
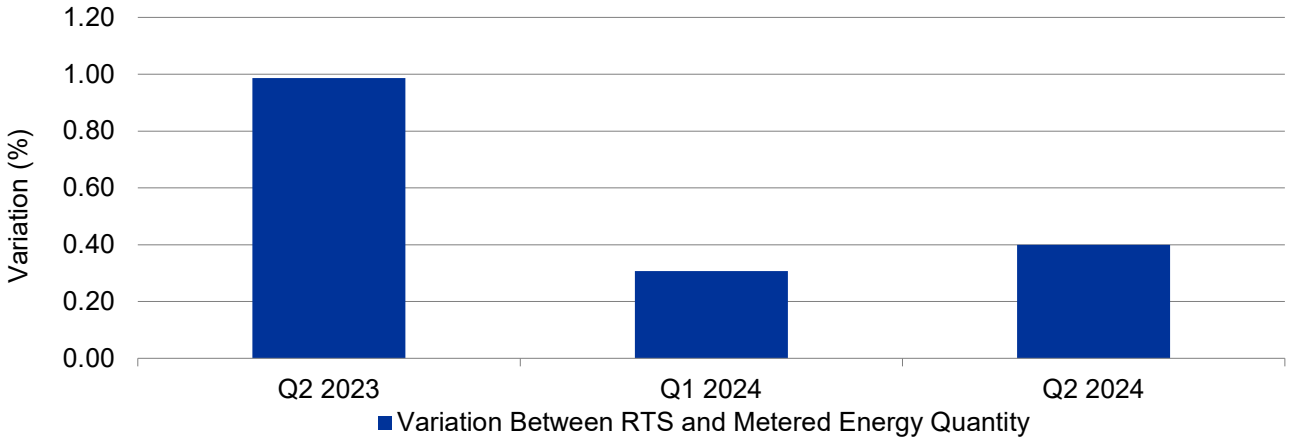


Chart 11 shows the variations in the pre-dispatch schedule ("PDS") and short-term schedule ("STS") against the real-time schedule ("RTS"). In Q2 2024, the monthly average load variation between the RTS and the STS remained relatively small at 0.07%, compared to 0.15% in Q1 2024 and 0.05% in Q2 2023.

The monthly load variation between RTS and PDS ranged between -0.18% and 0.45% in Q2 2024, while ranging between -0.03% and 1.31% in Q1 2024, and between -0.45% and 0.02% in Q2 2023. This revealed an improvement in the load forecast accuracy of the PDS from Q1 2024, but a slight reduction in the accuracy from Q2 2023.

The monthly load variation between RTS and STS ranged between -0.10% and 0.05% in Q2 2024, while ranging between -0.01% and 0.30% in Q1 2024, and between -0.12% and 0.00% in Q2 2023. This indicated a more accurate load forecast of the STS on QoQ and YoY basis.

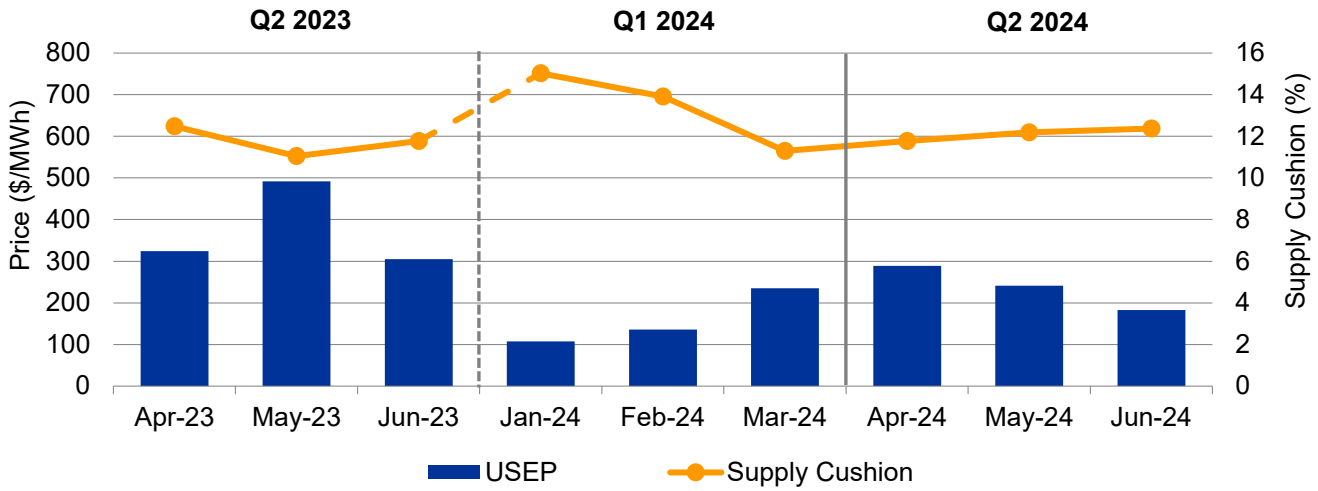
Chart 12. Quarterly Average Variation Between Real-Time Dispatch Schedule and Metered Energy Quantity



The metered energy quantity reflects the actual demand, while the load forecast in the RTS reflects the system demand including the station and auxiliary loads. This difference in methodology creates a variation between the RTS and the metered energy quantity, with the former being higher than the latter for the same trading period.

Q2 2024 recorded an average variation of 0.40% between the RTS and the metered energy quantity, which was slightly higher than 0.31% in Q1 2024 but much lower than 0.99% in Q2 2023. On a monthly average level, the variation in Q2 2024 experienced smaller fluctuations, ranging between 0.29% and 0.47%, as opposed to a range between 0.12% and 0.55% in Q1 2024 and between 0.92% and 1.06% in Q2 2023.

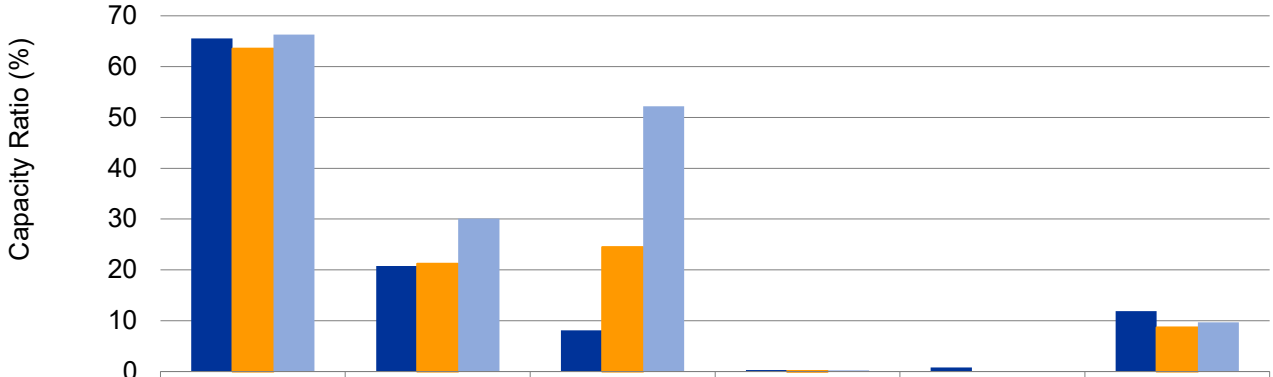
Chart 13. USEP and Supply Cushion



Compared to Q2 2023, the supply cushion expanded by 0.35 percentage point while the USEP plummeted 36.45% in Q2 2024. This was opposed to the 15.13% higher fuel oil price in Q2 2024. It is also noteworthy that the monthly USEP in each of the months in Q2 2023 was among the top twelve highest monthly levels to date. The sharp USEP drop was attributed to (1) the energy offers becoming more concentrated in the lower and higher offer price ranges, leading to greater price volatility, and (2) the introduction of the TPC mechanism with effect from 1 July 2023 to mitigate prolonged USEP spikes.

Compared to Q1 2024, the supply cushion scaled back 1.30 percentage points to 12.12% in Q2 2024. In comparison to a slight tightening of the supply cushion, the USEP surged 48.92% to $237.50/MWh. Against the backdrop of the fuel oil price rising by 11.78%, the energy offer prices became pricier with a 1.05 percentage point higher proportion of energy offers priced above $3,000/MWh. The higher and more volatile USEP this quarter was also reflected in the number of periods with TPC application rising to 432 in Q2 2024 from 100 in Q1 2024.

Chart 14. Capacity Ratio by Generation Type



	CCGT	OT	ST	OCGT	IMPORT	ESS
Q2 2023	65.56	20.76	8.12	0.30	0.80	11.88
Q1 2024	63.53	21.18	24.45	0.05	0.00	8.68
Q2 2024	66.30	30.07	52.19	0.26	0.00	9.68

The capacity ratio of a generation facility measures its scheduled generation output relative to its maximum generation capacity. Chart 14 shows the quarterly average capacity ratios of the six generation types in the National Electricity Market of Singapore (“NEMS”), which comprise Combined-Cycle Gas Turbine (“CCGT”), Others (“OT”), Steam Turbine (“ST”), Open-Cycle Gas Turbine (“OCGT”), imports (“IMPORT”), and Energy Storage System (“ESS”).

Compared to Q1 2024, the capacity ratios increased across all of the generation types, with the exception of IMPORT remaining at zero. This was consistent with a 4.91% higher demand resulting in higher utilisation rates from the generation facilities.

Compared to Q2 2023, the capacity ratios for CCGT, OT and ST grew but shrank for OCGT, IMPORT and ESS. Overall, the combined increase in capacity ratios for CCGT, OT and ST overshadowed the combined reduction in capacity ratios for OCGT, IMPORT and ESS, which was on par with a 1.98% higher demand.

On both QoQ and YoY comparison, the capacity ratio of ST grew the most, by 27.74 and 44.07 percentage points respectively. This was likely attributed to the de-registration of three partially retired ST facilities in Q1 2024 that had previously diluted the ST capacity ratio in Q2 2023, followed by the de-registration of an ST facility in Q2 2024.

Chart 15. Market Share of Generation Companies Based on Metered Energy Quantity[4]

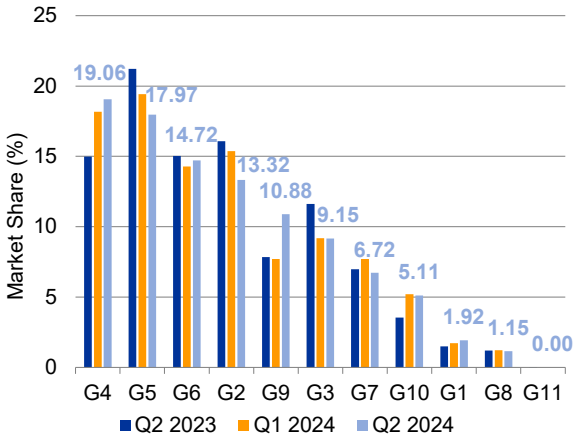
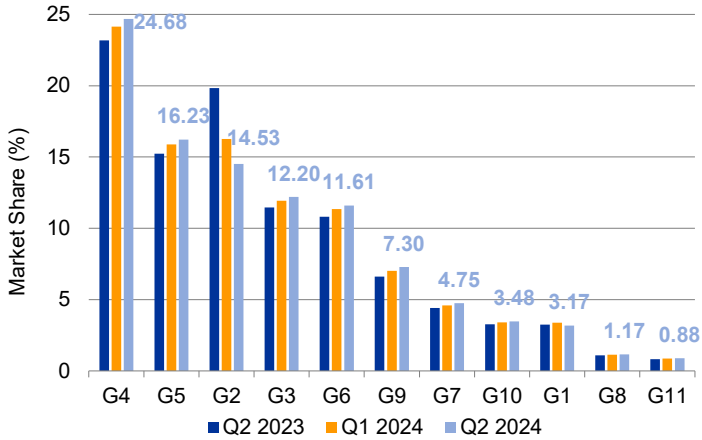


Chart 16. Market Share of Generation Companies Based on Maximum Generation Capacity[5]



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 15 and 16 respectively.

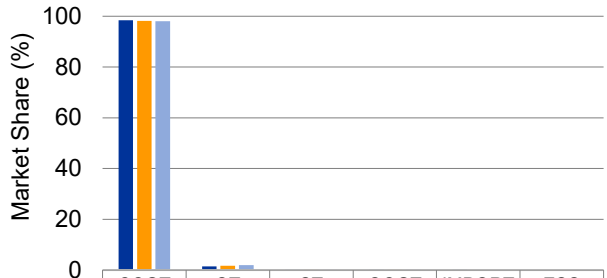
Based on metered energy quantity from Q1 2024 to Q2 2024, G6 replaced G2 to clinch the third spot. G4 and G5 remained in the top two positions, with G4 taking the lead this quarter. The combined market share of these three leading generation companies slid by 1.23 percentage points QoQ and by 0.58 percentage point YoY, to 51.75% in Q2 2024. On QoQ comparison, G9's market share recorded the greatest increase of 3.18 percentage points, while G2's market share contracted the most, by 2.06 percentage points. On YoY comparison, G4's market share gained the most by 4.08 percentage points, while G5's market share experienced the largest decline of 3.24 percentage points.

Based on maximum generation capacity, the three largest generation companies (G4, G5, and G2) held a combined 55.44% of the total market share in Q2 2024, down from 56.30% in Q1 2024 and from 58.25% in Q2 2023. In light of the de-registration of a facility from G1, as well as the upward capacity revision of a facility from G9 and of another facility from G7 in Q2 2024, the market share of G1 shrank 0.21 percentage point, while the market share of G9 and of G7 grew 0.29 percentage point and 0.15 percentage point respectively.

[4] Excludes intermittent generation facilities and Market Participants with net negative quarterly metered energy quantity.

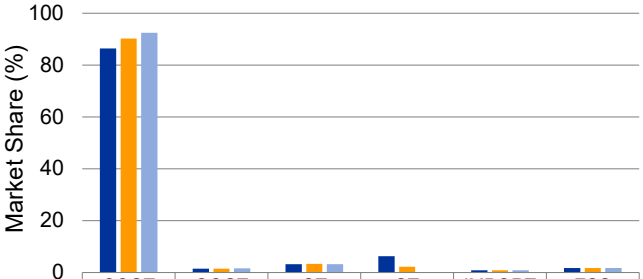
[5] Excludes intermittent generation facilities and Market Participants with less than 10 MW maximum generation capacity. The actual capacities of the ESS facilities are used for the computation.

Chart 17. Market Share by Generation Types Based on Metered Energy Quantity[6]



	CCGT	OT	ST	OCGT	IMPORT	ESS
Q2 2023	98.38	1.50	0.10	0.01	0.01	0.00
Q1 2024	98.20	1.74	0.06	0.00	0.00	0.00
Q2 2024	98.03	1.92	0.05	0.01	0.00	0.00

Chart 18. Market Share by Generation Types Based on Maximum Generation Capacity[7]



	CCGT	OCGT	OT	ST	IMPORT	ESS
Q2 2023	86.45	1.49	3.24	6.31	0.83	1.69
Q1 2024	90.28	1.55	3.38	2.18	0.86	1.75
Q2 2024	92.45	1.58	3.17	0.12	0.88	1.79

Most of the generation in the NEMS is produced by CCGT units, the most efficient generation technology. This is evident in the CCGT facilities continuing to dominate the market share based on metered energy quantity and maximum generation capacity.

The market share of ST facilities by maximum generation capacity, was lower QoQ and YoY in Q2 2024. This corresponded to the deregistration of three partially retired ST facilities in Q1 2024 that had previously inflated its market share in Q2 2023, followed by the deregistration of an ST facility in Q2 2024.

Compared to Q1 2024, the market share of CCGT facilities by maximum generation capacity expanded by 2.17 percentage points. This was attributed to the upward capacity revision of two CCGT facilities in Q2 2024. On the other hand, the market share of CCGT facilities by metered energy quantity reduced by 0.17 percentage point. This reduction likely came from a higher CCGT outage volume this quarter.

[6] Excludes intermittent generation facilities and technology type with net negative quarterly metered energy quantity.

[7] Excludes intermittent generation facilities and Market Participants with less than 10 MW maximum generation capacity. The actual capacities of the ESS facilities are used for the computation.

Chart 19. Frequency of Generation Companies as Pivotal Suppliers (PS) Per Period

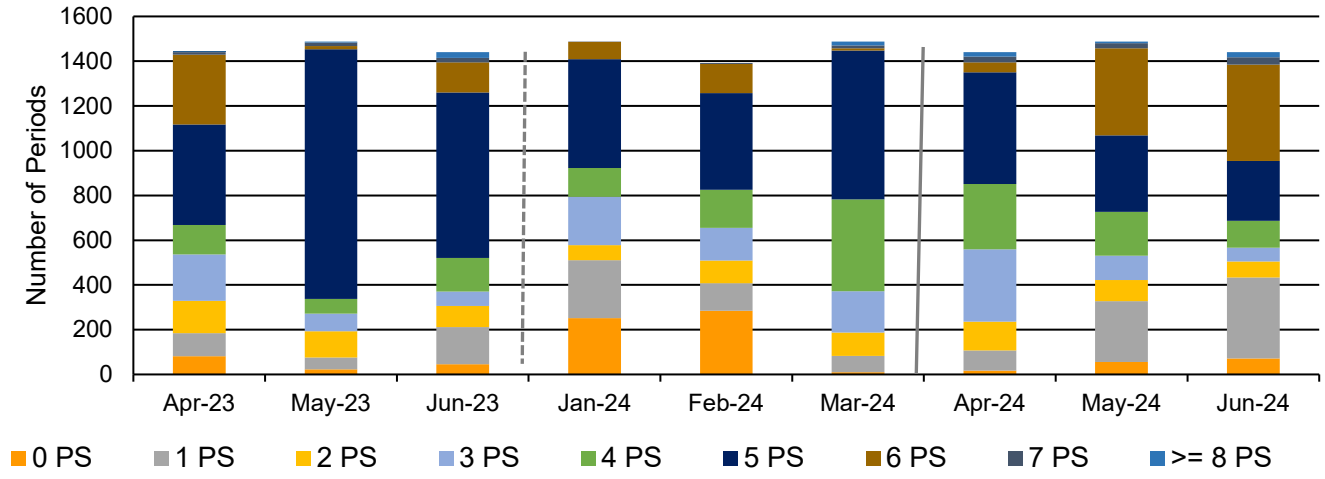


Chart 19 shows the frequency of pivotal suppliers per trading period for each month. The number of periods with 4 or more pivotal suppliers totaled 2,711 this quarter, up from 2,547 periods in Q1 2024 but down from 3,189 periods in Q2 2023. This coincided with the supply cushion this quarter being lower QoQ and higher YoY. In addition, the number of periods with 6 or more pivotal suppliers soared to 996, from 253 periods in Q1 2024 and from 537 periods in Q2 2023. The spike in this category largely came from the number of periods with no pivotal suppliers dropping to 144 this quarter, from 545 in Q1 2024 and from 151 in Q2 2023.

Chart 20. Trend of Price Setting Generation Companies

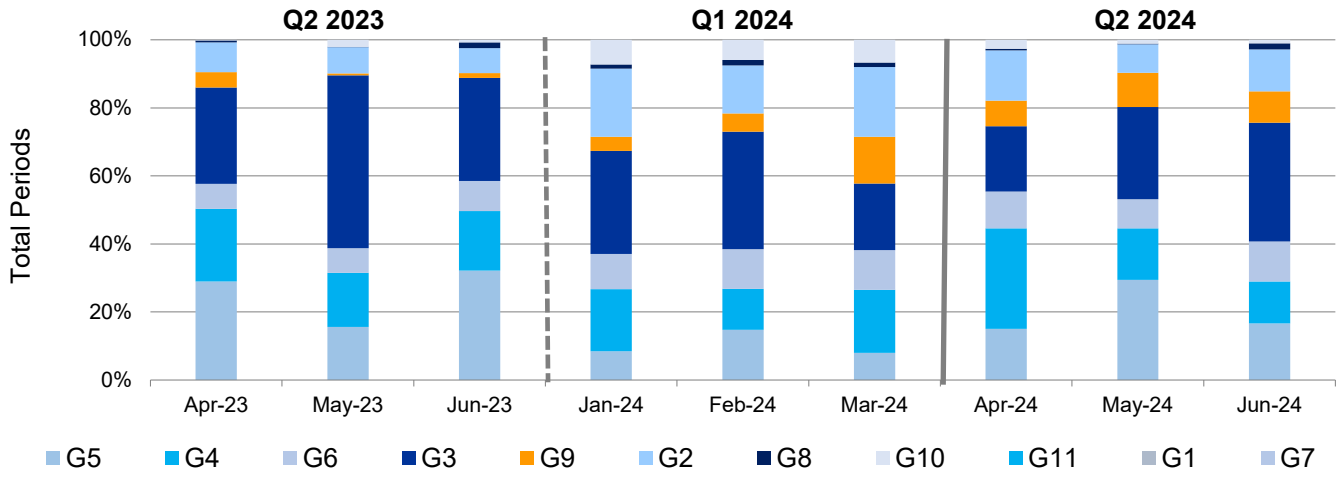
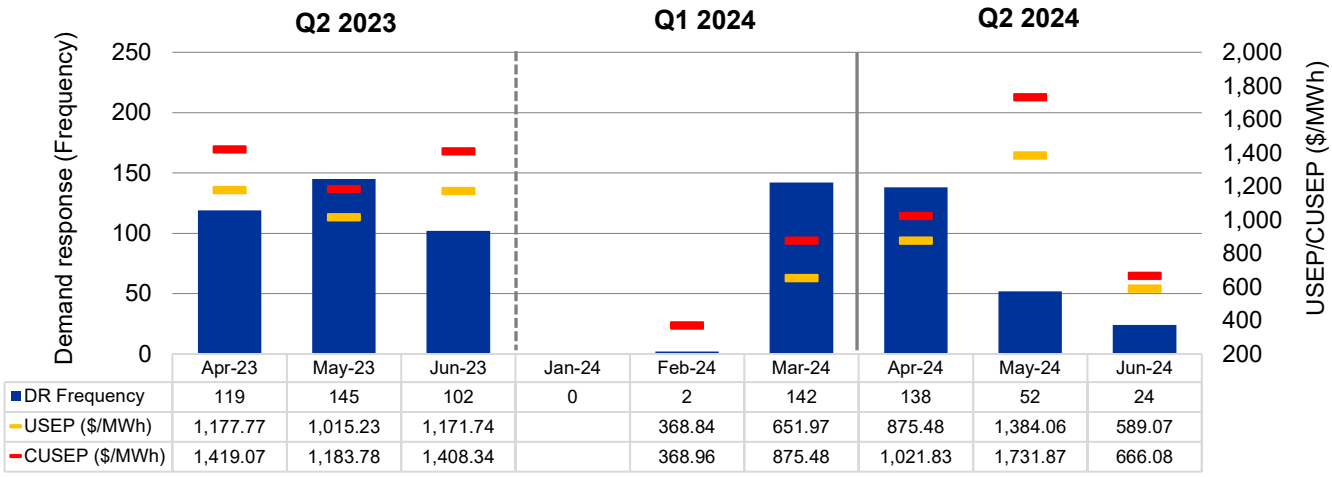


Chart 20 shows the monthly breakdown of price-setting generation companies. In Q2 2024, G3 maintained the largest share of 25.36%. This was a 3.73 percentage point drop from Q1 2024 and a 10.31 percentage point drop from Q2 2023. Compared to Q2 2024, G5 replaced G2 for the second spot at 20.70%, while G4 trailed closely behind at 20.65%.

Chart 21. Demand Response Activations



	Apr-23	May-23	Jun-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24
DR Frequency	119	145	102	0	2	142	138	52	24
USEP ($/MWh)	1,177.77	1,015.23	1,171.74		368.84	651.97	875.48	1,384.06	589.07
CUSEP ($/MWh)	1,419.07	1,183.78	1,408.34		368.96	875.48	1,021.83	1,731.87	666.08

Chart 21 shows the frequency of Demand Response ("DR") activations and the associated average USEP and counterfactual USEP ("CUSEP")[8] during those periods with DR activations. The frequency of DR activations is typically reflective of the frequency of higher USEP.

The number of DR activations in Q2 2024 stood at 214, up from 144 in Q1 2024 but down from 366 in Q2 2023. This was on par with the number of periods with USEP above $500/MWh amounting to 271 this quarter, 137 such periods in Q1 2024, and 444 such periods in Q2 2023.

Compared to the rest of the months in Q1 2024 and Q2 2024 when the TPC mechanism was in effect, the proportion of energy offers priced above $3,000/MWh was among the greatest in May 2024, at 4.63% (following closely behind the 4.70% level in April 2024). The supply cushion in May 2024 at 12.19% was also among the lowest (trailing behind the 11.78% level in April 2024 and 11.30% level in March 2024). However, the number of DR energy bids in May 2024 at 118 was much lower than those in March and April 2024 at 325 and 264 respectively. Therefore, a lower frequency of DR activations was observed alongside relatively high average CUSEP and USEP in May 2024.

The spread between the average CUSEP and USEP narrowed to $187.53/MWh this quarter, from $220.40/MWh in Q1 2024 and from $211.17/MWh in Q2 2023. This indicated that with each MW of consumption, consumers benefitted less from the lower estimated average cost savings for each MW of consumption.

The number of DR providers, number of DR facilities, and registered capacities of DR load curtailment remained unchanged this quarter.

[8] The CUSEP (in $/MWh) is calculated by the market clearing engine (MCE) with the assumption that there are no dispatchable energy bids.

Compliance Statistics for Q2 2024

Potential Breaches of the Market Rules

Determinations*

Enforcement

136 cases in total	**91 determinations in total**	**1 case in total**
0 non-gate closure **136** gate closure	**1** case determined to be in breach **7** cases determined to take no further action **83** cases determined not to be in breach	**0** financial penalty **1** non-compliance letter **0** suspension order **0** termination order **0** other MSCP order **$0** of financial penalty imposed **$9,000** of costs awarded

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

The MSCP issued one rule breach determination this quarter:

i. 1 case from Energy Market Company regarding disclosure of confidential information (Letter of non-compliance, $5,000 costs)

MSCP Market Watch

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, 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 with 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:

- Professor Walter Woon, Chairman
- Philip Chua
- Professor Euston Quah
- Dr Stanley Lai
- Yeo Yek Seng

Disclaimer

If you have any specific query or feedback for the improvement of this publication, you may write to mau@emcsg.com.