



**Single Electricity Market  
(SEM)**

**SEM Tariffs and Charges**

**Decision Paper  
SEM-20-057**

**18 August 2020**

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### 3 INTRODUCTION AND BACKGROUND

As required under Trading and Settlement Code Part B, a number of Market Parameters require approval by the SEM Committee each year. These parameters consist of four Tariffs/Charges and one Conversion Rate:

- Supplier Capacity Charge Price
- Difference Payment Socialisation Multiplier
- Residual Error Volume Price
- Currency Cost Price and Currency Adjustment Charge Factor
- Annual Capacity Charge Exchange Rate

The charges are required to enable SEMO to calculate and issue credit cover requirements to each participant, which participants will need to put in place before 1 October 2020.

This paper sets out the final values to apply for each of these items in the tariff year 1 October 2020 until 30 September 2021.

### 4 SUPPLIER CAPACITY CHARGE PRICE

The Capacity Remuneration Mechanism (CRM) awards capacity determined via an auction process. Payments under the CRM are funded through a Capacity Charge which is socialised across all suppliers on a monthly basis, based on their daytime demand profile.

The value of the Supplier Capacity Charge is determined by dividing the sum of the cost of the T-1 2020/21 auction and an amount for a K-Factor (as under recovery of Capacity Payments in 2018/19), by the daytime hours adjusted All-Island Demand Figure.

These values were submitted to the RAs on the 10<sup>th</sup> July 2020 and are as follows.

Metric	Value (€)
Cost of 2020/21 T-1 Auction	360,297,673
Y-2 K-factor under recovery	9,879,152
Total	370,176,825

Table 1: Amounts included in Supplier Capacity Charge for Capacity Year 2020/21

The under recovery was caused by the actual demand falling under the forecasted demand in that Capacity Year. More specifically, the actual Capacity Payments (for 2018/19) of €325,055,006 were offset by the actual Capacity Charges received of €315,175,854, the difference being €9,879,152.

The total in Table 1 once divided by the daytime-hours All-Island SEM demand figure (73.87% x 33,600 GWh = 24,820,320 MWh) determines the Supplier Capacity Charge value. The daylight hours multiplier is determined by the TSOs, this was based on the last full year (2018/2019) in which 73.87% of SEM All Island Demand was consumed in Day Time Hours (7am – 11pm).

The RAs have reviewed this submission for consistency with results of the auction for the year in question, and are content with the methodology and rationale provided.

The RAs approve the SEMO proposed tariff of €14.91/MWh for Supplier Capacity Charge Price.

## 5 DIFFERENCE PAYMENT SOCIALISATION MULTIPLIER

The Difference Payment Socialisation Multiplier relates to the Capacity Market. The purpose of building up the fund through a tariff is to ensure suppliers are fully hedged against high price events in cases in which there is not enough contracted capacity to make difference payments to cover the pricing event. This is separate to the Supplier Capacity Charge itself.

If inadequate funds have been built up at a point where difference payments need to be made from the fund, the Market Operator may use the over recovery of other charges to make difference payments. Otherwise the Market Operator has the right to “suspend and accrue” until funds are built up again.

SEMO submitted a proposal for this multiplier on 10 July 2020 of 0.1%.

The RAs are content with the approach and methodology used in the submission and approve the multiplier of 0.1% which is 0.001 for system input purposes.

## 6 RESIDUAL ERROR VOLUME PRICE

Residual Error Volume Price (REVP) relates to differences between actual and metered volumes that can swing in both positive and negative directions.

The concept and principles applied to REVP in the previous market design are similar in the new market design. As part of the I-SEM design participants wanted to reduce weekly billing volatility associated with REVP and requested the introduction of a tariff arrangement. Thus the key difference in REVP between the old and new SEM arrangements is the manner in which costs are recovered, whereby it moves from a recovery in close to real time in SEM, to a tariff arrangement in I-SEM.

SEMO submitted a proposal for this Tariff on 10 July 2020. The methodology used was similar to the 2019/20 calculation but differs slightly in the approach. Last year the TSOs based their REVP calculation on historical costs over the four year tariff period from 2014/15 to 2017/18 along with a forecast for 2018/19 and took the average figure.

This year, Residual Error Volume costs has been estimated based on the actual costs in the first year, (1 October 2018 to 30 September 2019) of the new SEM market and a current forecast of a potential enduring position. These are €27,533,118 and €20,000,000 respectively.

The mid-point €23,766,559, is determined as the Residual Error Volume. There is also an inclusion of €4,296,424 for a Y-2 K-factor<sup>1</sup>. This total sums to €28,062,983.

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<sup>1</sup> The under recovery arises from the sum of the Residual Error Volume Charge of €23,236,694 and the Imbalance Component Charge of €681,070,489 less the amount paid out from the Imbalance Component Payment of €708,603,607 producing a Y-2 K-Factor under recovery amount of €-4,296,424.

The forecast all Island SEM demand for tariff year 2020/2021 is 33,600 GWh and applied to throughput based on the Non Interval Energy Proportion (average NIEP for calendar year 2019 was 52% and this is expected to continue in the new market), which gave a forecast NIEP demand of 17,472,000 MWh and resultant tariff of €1.61/MWh based on the €28,062,983 amount.

## **7 CURRENCY COST PRICE AND CURRENCY ADJUSTMENT COST FACTOR**

Due to the existence of two currencies within the SEM, variation between these can occur in incoming and outgoing amounts in the market over the year. This variation is covered through the Currency Adjustment Charge.

The concept and principles applied to currency costs in the old SEM are similar in the new market. However the mechanism for the recovery of these costs in the balancing and Capacity Markets has changed. As part of I-SEM design, a tariff arrangement was introduced which reduces weekly and monthly billing volatility associated with currency as seen by suppliers. Therefore recovery of costs have moved from close to real time in the old SEM to a tariff arrangement in the new.

SEMO submitted a proposal for this tariff on 10 July 2020 and the RAs have reviewed the submission.

For the current tariff year, 2019/20, the estimate of the Currency Cost Amount was €0.5m which gave rise to a tariff of €0.015. SEMO currently estimates the actual, 2019/20, Capacity and Balancing Market FX exposure against the business out-turning at a similar amount to that estimated, noting that FX rate movements are unpredictable and any variation will be accounted for through a k factor.

The RAs have approved the currency adjustment charge of €0.015/MWh taking into account the Y-2 K-factor correction factor which will be applied in the currency cost price calculations going forward.

The RAs approve SEMO proposed tariff of €0.015/MWh for the Currency Cost Price and Currency Adjustment Charge Factor of 1 for the 2020/2021 tariff year.

## **8 ANNUAL CAPACITY CHARGE EXCHANGE RATE**

The purpose of the Annual Capacity Exchange Rate is to translate, where required, the Annual Capacity Charge from Euro to Sterling or vice versa for billing purposes.

The Annual Capacity Payment Exchange Rate was published within the Final Capacity Auction Information pack in December 2019 and approved by the RAs and SEM Committee at €1:£0.8797. It is effective for Capacity Year, 1 October 2020 to 30 September 2021.

SEMO has proposed the Annual Capacity Charge Exchange Rate is set equal to the Annual Capacity Payment Exchange Rate for the Capacity Year. This exchange rate of €1:£0.8797 means that both Capacity payments and charges related to the T-1 Capacity Auction will be billed using the same rate and will ensure that any currency gains/costs which may arise are not inadvertently recovered through Capacity Charges rather than Currency Adjustment Charges.

The RAs approve the Annual Capacity Charge Exchange Rate of €1:£0.8797.