Integrated Single Electricity Market (I-SEM)

Capacity Remuneration Mechanism Reserves Consultation Paper SEM-18-159

A Submission by EirGrid and SONI

2nd November 2018



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1 INTRODUCTION

1.1 EIRGRID AND SONI

EirGrid holds licences as independent electricity Transmission System Operator (TSO) and Market Operator (MO) in the wholesale trading system in Ireland, and is the owner of the System Operator Northern Ireland (SONI Ltd), the licensed TSO and MO in Northern Ireland. The Single Electricity Market Operator (SEMO) is part of the EirGrid Group, and operates the Single Electricity Market on the island of Ireland.

Both EirGrid, and its subsidiary SONI, have been certified by the European Commission as independent TSOs, and are licenced as the transmission system and market operators, for Ireland and Northern Ireland respectively. EirGrid also owns and operates the East West Interconnector, while SONI acts as Interconnector Administrator for both of the interconnectors that connect the island of Ireland and GB.

EirGrid and SONI, both as TSOs and MOs, are committed to delivering high quality services to all customers, including generators, suppliers and consumers across the high voltage electricity system and via the efficient operation of the wholesale power market. EirGrid and SONI therefore have a keen interest in ensuring that the market design is workable, will facilitate security of supply and compliance with the duties mandated to us and will provide the optimum outcome for customers.

EirGrid and SONI have duties under licence to advise the CRU and UR respectively on matters relating to the current and expected future reliability of the electricity supply. We have also been allocated responsibility for administering the Capacity Market Code through our TSO licences and the MO is responsible for settlement of the Capacity Market through the Trading and Settlement Code. This response is on behalf of EirGrid and SONI in their roles as TSOs and MO for Ireland and Northern Ireland, including as operators of the Capacity Market.

2.1 GENERAL COMMENTS

EirGrid and SONI welcome the opportunity to respond to the Capacity Remuneration Mechanism Reserves Consultation Paper (SEM-18-159). Our response reflects our views both as operators of the Capacity Market but also more broadly as the Transmission System Operators with responsibility for the safe, secure, reliable and economic operation of the power systems of Ireland and Northern Ireland. In this regard, we consider a well-functioning Capacity Auction to be of utmost importance.

The TSOs agree with the proposal to include reserves in the Locational Capacity Constraint Area minimum MWs for the T-4 CY2022/23 capacity auction. In the Capacity Requirement and De-Rating Factor Methodology Consultation Paper (SEM-16-051a) the TSOs recommended the inclusion of reserves to cover the Largest Single Infeed in the Capacity Requirement. We continue to view the inclusion of reserve in the Capacity Requirement as being important to help maintain Security of Supply. We supported the SEM Committee's recent decision to include reserves in the CY2022/23 T-4 auction.

It is important that each factor and parameter contributing to generation adequacy is considered on its own merit. The most important and fundamental parameter is the Loss of Load Expectation (LOLE) adequacy standard. The TSOs have previously provided analysis to support our recommendation that a 3 hour LOLE standard should be used for SEM (and Level 1 locational areas). We would like to use this opportunity to reiterate this recommendation and our view that it provides a more optimal outcome for All-Island consumers and better aligns with European adequacy standard trends.

We consider that targeting an equivalent level of LOLE in each region would be an appropriate approach for the apportionment of reserves (more details on the approach are provided in our responses to the individual questions in the next sections). This approach would be equitable and aligns with the existing Locational Capacity Constraints Methodology. This broadly aligns with Option 1 (bottom up approach) set out in the consultation.

It is our view that the same principles should ideally apply to reserve allocation in the T-4 and T-1 Capacity auctions with the potential for an additional adjustment for the T-1 auctions to take account of factors such as recent generator performance, delivery risk, known exceptional outages and up-to-date changes to the portfolio.

In the following sections, EirGrid and SONI respond to the specific questions set out in the consultation paper. If there are any aspects of our response which are not clear or you require further information or clarity please advise and we will be happy to provide this.

1) Do you agree with the proposal to include reserves in Locational Capacity Constraint Area minimum MWs for the T-4 CY2022/23 capacity auction? Please explain

The TSOs agree with the proposal to include reserves in the Locational Capacity Constraint Area minimum MWs for the T-4 CY2022/23 capacity auction. In SEM-16-051a, the TSOs recommended the inclusion of reserves to cover the LSI in the All-Island Capacity Requirement. We continue to view the inclusion of reserve in the Capacity Requirement as being important to help maintain Security of Supply. We support the SEM Committee's decision to include reserves in the CY2022/23 T-4 auction.

The inclusion of locational capacity constraints in the upcoming T-4 CY2022/23 capacity auction recognises that there is capacity restrictions between areas and this should be reflected in the allocation of reserve also.

The consultation paper states that one of the key reasons for including a measure of reserves in the LCCA minimum MWs is ensuring consistent levels of local security of supply (at LCCA and all-island level). The TSOs consider that this is a valid reason for including a measure of reserves in the LCCA minimum MWs. It also aligns with the principles of the existing Locational Capacity Constraint Methodology.

2) If reserves are to be included across the Locational Capacity Constraint Areas, which of the above approaches (or other approaches do you favour and why)?

Ensuring consistent levels of local security of supply (at LCCA and all-island level) is stated as one of the key reasons for including a measure of reserves in the LCCA minimum MWs. Allocating reserves using an approach that targets an equivalent level of LOLE in each region would be appropriate to achieve this. It would be equitable and aligns with the existing Locational Capacity Constraint Methodology. The quantification of the locational reserve requirements that would lead to consistent levels of LOLE for the Level 1 areas is relatively straightforward and can be calculated using the same tool used to calculate the All-Island and Level 1 Locational Capacity requirements. This approach would broadly align with Option 1 (Bottom-up approach) in the consultation.

The figure below gives the level of reserves that would need to be included in the Northern Ireland and Ireland requirements in order to provide an equivalent level of LOLE to the All-Island system for different All-Island reserve levels. For example, a 300 MW All-Island reserve level equates to approximately 150 MW in Northern Ireland and 240 MW in Ireland. As expected, the sum of the Northern Ireland and Ireland reserve levels (150 + 240 = 390 MW) is greater than the equivalent All-island level. As stated in the consultation paper this is not a new principle; in the CY2018/19 auction, the minimum MW in Ireland plus the minimum MW in Northern Ireland summed to 180 MW more than the all-island Capacity Requirement.

Locational Reserve Level Required to Achieve Equivalent LOLE for a Range of All-Island Reserve Levels

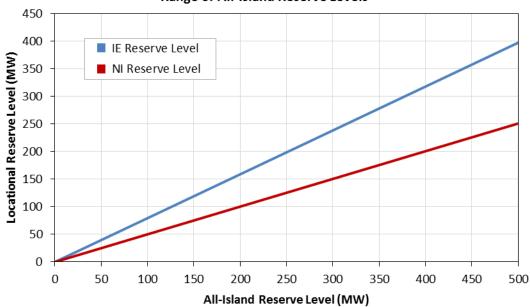


Figure 1: Ireland and Northern Ireland reserve levels that would give the equivalent hours of LOLE in Ireland and Northern Ireland for a range of All-Island reserve levels

Using the exact same approach for a Level 2 Locational Area is not possible as the Level 2 minimum MW requirement methodology is based on a different approach and uses the network planning standards rather than the LOLE adequacy standard. In the long-run (i.e. T-4 auctions) it would seem appropriate that the allocation should be aligned with the ratio of the L1 and L2 Minimum MW requirements to help ensure optimal investment signals and more stable auction outcomes. This may not be required for the T-1 CY2019/20 auction as the primary purpose of the T-1 CY2019/20 auction is to manage the transition to the enduring auction arrangements rather than sending long-term investment signals.

2.3 INCLUDING RESERVES IN CY2019/20 T-1 AUCTION

1) Do you agree with the proposal to include reserves in the forthcoming T-1 capacity auction for CY2019/20? Please explain.

Yes, the TSOs agree with the proposal to include reserves in the Locational Capacity Constraint Area minimum MWs for the T-1 CY2019/20 capacity auction. If reserves are going to be included in the T-4 All-Island Capacity Requirement and the T-4 Locational Minimum MW requirements then there is a clear rationale to include a measure of reserves in the T-1 capacity auction. Taking account of the most recent generator performance, known exceptional outages and up-to-date changes to the portfolio is also important. The TSOs consider that each driver should be considered on its own merit and the appropriate adjustment made for each component.

The term reserve in the context of this consultation potentially takes account of a number of factors (e.g. exceptional outages). We view these adjustments as appropriate, but it should not be solely considered to be an adjustment for operational reserve.

2) Do you agree with the view that the case for including significant reserves in the all-island demand curve is relatively weak?

From an adequacy perspective and to ensure equitable outcomes, the most important consideration is for the appropriate measure of reserves to be included in the Locational Minimum MW Requirements.

3) If reserves are to be included across the Locational Capacity Constraint Areas, which of the above approaches (or other approaches do you favour and why)?

Our recommended approach for the allocation of reserves for the T-4 auction broadly aligns with the bottom up approach that seeks to equalise the LOLE in the LCC areas.

The principles used for the calculation of the T-1 auction reserve requirements should appropriately align with the principles used for the T-4 auction requirements. If reserves are going to be included in the T-4 auction then, as a starting point, it would seem appropriate that a similar level and locational ratio is assumed for the T-1 auction. This would align with the established principle that capacity that is required in future auctions does not close in the interim transition period.

Taking account of factors such as recent generator performance, delivery risk, known exceptional outages and up-to-date changes to the portfolio is also important. This may lead to an upward or downward adjustment from the reserve level in the T-4 auction to take account of specific factors in each region. These adjustments would broadly align with a bottom-up approach.

4) Are there reasons to use different approaches for the CY2019/20 T-1 auction and the CY2022/23 T-4 auction? If yes, please explain.

The principles used for the calculation of the T-1 auction reserve requirements should appropriately align with the principles used for the T-4 auction requirements. In addition, taking account of factors such as recent generator performance, delivery risk, known exceptional outages and up-to-date changes to the portfolio is also appropriate for the T-1 auction.