

Integrated Single Electricity Market (I-SEM)

Capacity Requirement and De-rating Factor Methodology

Detailed Design

SEM-16-051

A Submission by EirGrid Interconnector DAC

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1. INTRODUCTION

EirGrid Interconnector Designated Activity Company (EIDAC) welcomes the opportunity to respond to the Consultation Paper published by the SEM Committee on Capacity Requirement and De-Rating Factor Methodology Detailed Design.

The East West Interconnector is a high-voltage direct current (HVDC) interconnector which links the electricity transmission grids of Ireland and Great Britain. The East West Interconnector is a fully regulated interconnector which is owned by EIDAC a wholly owned subsidiary of EirGrid plc and is operated in accordance with the Interconnector Operator licences issued by CER and Ofgem. SONI Ltd. acts as Interconnector Administrator¹ for both of the interconnectors that connect the island of Ireland and GB.

Our approach to operating the East West Interconnector is underpinned by the following principles:

1. We operate the East West Interconnector to maximise benefit to SEM consumers through trade and provision of capacity and other services. EWIC is an enabler of market competition and lowers the overall cost of the supply of electricity.
2. The operation of the East West Interconnector is fully regulated and is fully compliant with European and national regulatory requirements in relation to open access.
3. Under the regulatory model in place, revenue from the East West Interconnector does not impact on or affect EirGrid's profitability. EirGrid's profits are not affected by revenue from the East West Interconnector.

^{1 1} The "Interconnector Administrator" is a defined role under the Single Electricity Market Trading and Settlement Code. It is part of the SONI license to Participate in the Transmission of Electricity to provide this and the "Interconnector Error Administrator" services as such expressions are defined in the GB Balancing and Settlement Code for the Moyle interconnector. SONI Ltd also provides these services to the East West Interconnector.

2. RESPONSES TO THE REQUEST FOR VIEWS IN THE CONSULTATION PAPER

The invitation from the SEM Committee requested respondents to present views on the methodologies presented and also any on positions expressed, proposals and discussion in the paper on Capacity Requirement and De-Rating Factor Methodology – Detailed Design. EIDAC has confined its response to consideration of the consultation document on Interconnector De-rating Methodology.

The EIDAC response is shaped by the following general points:

- EIDAC is funded through Transmission Use of System (TUoS) charges this has ensured that EWIC is funded at the lowest possible cost, which has delivered substantial benefits for customers and is consistent with the European framework for interconnectors.
- EIDAC facilitates the provision of energy from physical generation located in GB, or further afield.

3. INTERCONNECTOR DE-RATING METHODOLOGY

EIDAC considers that the analysis which has been carried out on to provide the Interconnector De-rating Methodology is

- Consistent with the exercises which have been carried out to determine appropriate de-rating factors in other markets and jurisdictions.
- Consistent in the conservative nature of its approach to the identification of available and effective GB and I-SEM Capacity using simulated data and a series of assumptions which has proven robust when sensitivities are modelled.

4. INTERCONNECTOR TECHNICAL AVAILABILITY

EWIC was commissioned in May 2013 and hence the small amount of data on its Forced Outage Rate (FOR) and Scheduled Outage Rate (SOR) could result in significantly distorted results if the wrong assumption is made regarding its availability. On that basis EIDAC agrees that the appropriate source to use for technical availability for the interconnectors is the TSO Operations Data. However, given the fact that there are only 2 interconnectors from which that data is drawn both of which have significant differences in the technology used, EIDAC considers that it would be more appropriate to use the actual FOR and SOR figures for each interconnector rather than an average based on such small numbers.

| Data Source | Moyle | | EWIC | | Interconnectors | |
|---------------------|-------|------|------|------|-----------------|------|
| | FOR | SOR | FOR | SOR | FOR | SOR |
| TSO Operations Data | 9.3% | 1.3% | 1.2% | 3.3% | 5.6% | 2.3% |

5. RESULTS AND CONCLUSION

Although the paper states that the results provided should be considered *indicative* only EIDAC considers that these results illustrate clearly the results from the application of the methodology.

- The effect of the use of the averaged outage rates in a “class” with a population of 2 is to skew the result due to this use of such a small non-homogenous population to give a common outage rate.
- In addition the effect of the small population is seen where the larger size of EWIC contributes to a higher de-ratings for EWIC.

6. SUMMARY

In summary:

- EIDAC accepts the methodology used for the determination of available capacity and effective interconnector capacity based on the apparent robust nature of the results given the sensitivities which have been modelled.
- However EIDAC has reservations over the use of a “class” approach in the first instance and the level of influence of the size of EWIC in arriving at the separate de-rating factors for each of the interconnectors as follows:
 - the different technical and operating characteristics result in different outage rates results for each interconnector; EIDAC contends that these figures should be used rather than those which are derived based on the “100 MW bin sizes” used to determine marginal de-ratings in the TSO paper
 - the level of influence of the larger size of EWIC relative to Moyle which is used to justify its higher de-rating is unclear and seems excessive.