Draft Transmission Development Plan Northern Ireland 2018-2027

Moyle Interconnector Limited Comments

January 2019

INTRODUCTION

Moyle Interconnector Limited (Moyle) welcomes the opportunity to comment on the draft Transmission Development Plan Northern Ireland 2018-2027. Our comments are submitted from our point of view as the owner of the Moyle Interconnector, the 500 MW high voltage direct current interconnector between the transmission networks of Northern Ireland and Scotland. Moyle is the only interconnector between Northern Ireland (NI) and Great Britain (GB) and together with the East-West Interconnector the two interconnectors provide valuable interconnection between the all-island Single Electricity Market (SEM) and the BETTA market in GB.

DETAILED REMARKS

The Value of Interconnection

The draft plan notes:

> *EU Policy recognises the economic and technical benefits associated with increased interconnection and therefore seeks to promote interconnection between European transmission systems. Increased interconnection between transmission networks results in a larger energy market.*

We support this recognition.

Further, the value of increased inter-market interconnection has been studied. When Moyle suffered a cable failure resulting in a reduction of technical capacity to 250 MW, the value of restoring Moyle to full 500 MW capacity (though still constrained on-shore) was assessed by both SONI and independent consultants (in 2014). The SONI study[1] concluded:

> *Increasing the import capacity leads to a reduction in wholesale electricity costs to consumers in the all island single electricity market. Savings are also seen in socio-economic welfare and system operation costs. Combined benefits of £16 million per annum can be delivered to the Northern Ireland consumer, and this rises to £62 million when considering savings on an all-island basis.*

Note that this refers to import capacity only and does not consider the value of increased export capacity, which is used when renewable generation is high, so that export capacity reduces curtailment of such generation in SEM. The consultants' study[2] reached similar conclusions. It is clear that increasing SEM-GB interconnection capacity offers substantial benefits to consumers.

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[1] Assessing the benefit of restoring the import capacity of the Moyle interconnector - https://www.uregni.gov.uk/sites/uregni.gov.uk/files/media-files/SONI_Assessment_-_Benefit_of_Moyle_Restoration_0.pdf

[2] Interconnector Valuation Analysis 2012-2014 - https://www.uregni.gov.uk/sites/uregni.gov.uk/files/media-files/Historic_Assessment_-_Interconnector_Valuation_Analysis.pdf

Interconnection Regulation and Policy

The clear direction of regulation and policy across Europe has been in increase interconnection between markets, in order to enhance security of supply, support efforts to increase renewable generation and reduce wholesale prices.

In particular we note Annex I of the EC regulation on conditions for access to the network for cross-border exchanges in electricity[3], which clearly states (our emphasis):

> *'**TSOs shall not limit interconnection capacity in order to solve congestion inside their own control area**, save for the abovementioned reasons and reasons of operational security. [Footnote: Operational security means 'keeping the transmission system within agreed security limits'.] If such a situation occurs, this shall be described and transparently presented by the TSOs to all the system users. **Such a situation shall be tolerated only until a long-term solution is found.** The methodology and projects for achieving the long-term solution shall be described and transparently presented by the TSOs to all the system users.'*

While the on-shore constraints faced by Moyle have been described, for example in the Moyle capacity calculation documents (see below), it is not clear that a long-term solution has yet been found.

In addition, in line with the methodologies developed under the regulation establishing a guideline on capacity allocation and congestion management[4], we expect daily capacity calculation processes to be implemented shortly, which will evaluate system conditions and release interconnector capacity above 'firm' connection capacities, up to the maximum technical capacity of the interconnector.

Moyle's Connection Capacity

Moyle's connection remains constrained by the transmission network both in Scotland and in Northern Ireland. (The numbers in this section refer to market capacity, as measured on the Scotland side of the interconnector.)

In Scotland Moyle's East to West capacity is constrained to 450 MW due to an operational security constraint (voltage step change). However, although West to East capacity is limited to a range of 'firm' capacities below 500 MW over the period November 2017 to April 2022 (due to congestion), National Grid has implemented a capacity release process, through which additional capacity is made available to the market at day ahead based on forecast network congestion in south-west Scotland at hourly granularity. Unfortunately, the SEM systems are not yet able to accept capacity release at hourly granularity and the maximum daily release in this direction remains limited to 295 MW by the Northern Ireland network (see below). From April 2022 the full 500 MW of capacity will be available on the National Grid side in the direction West to East.

[3] Regulation EC No 714/2009.

[4] Commission Regulation (EU) 2015/1222.

In Northern Ireland Moyle's East to West (import) capacity is limited during the summer months to 410 MW by a thermal constraint (congestion). West to East (export) capacity remains limited by operational security constraints (voltage support in the east of NI) to 295 MW. These constraints were set out in the Moyle Capacity Calculation document in 2011. The Moyle Capacity Calculation document 2017[5] re-stated the constraints, but also included details of the daily process by which National Grid would release additional capacity in the West to East direction.

The Draft Transmission Development Plan

While the draft Transmission Development Plan addresses the planned second interconnector between NI and the Republic of Ireland, the on-shore link that has great importance in the context of the all-island Single Electricity Market, there is no mention of inter-market interconnection. Specifically, the document makes no reference to interconnection between NI and GB, which is currently provided by the Moyle Interconnector but which does not use the full technical capacity of the interconnector. In the context described above the absence of any mention of network developments that would support increased use of the existing available technical capacity on Moyle is surprising.

(It is possible that some of the developments outlined in the plan may contribute to relieving the constraints on Moyle, but those connections are not clearly identified.)

Just as Moyle has sought to relieve the constraints on the GB side, which has resulted in up to 500 MW being made available daily in the West to East direction, Moyle has also sought to relieve the constraints on the NI side. At this time we await clarity from SONI on the process by which Moyle might obtain additional capacity on the NI transmission system in both import and export directions.

With the policy direction clearly in favour of removing constraints to cross-border interconnection and Moyle seeking additional capacity, it seems obvious to consider the need for increased cross-border capacity in this Transmission Development Plan. We encourage SONI to explore developments that would increase and ultimately maximise the cross-border (SEM-GB) capacity made available to the market. The Moyle team stands by to engage with SONI on options to increase Moyle's connection capacity.

[5] Moyle Interconnector Capacity Calculation 2017 Consultation - http://www.mutual-energy.com/wp-content/uploads/downloads/2017/06/Moyle_Capacity_Calculation_2017_consultation_web.pdf