BORD NA MÓNA

BORD NA MÓNA ENERGY LIMITED

Submission by Bord na Móna Energy Ltd.

on

Methdology Options to be considered for the Implementation of Location Signals on the Island of Ireland

SEM-09-060

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Response to SEM-09-060

Introduction

Bord na Móna welcomes the opportunity to respond to this consultation process on locational signals in the SEM. The consultation paper presents a number of potential options for TUoS and TLAF calculation methodologies, and it is important that these are evaluated in more detail to allow market participants to comment on the most appropriate model for the SEM.
Bord na Móna would specifically like to comment on the efficiency objective in terms of how effective locational signals can be and the need to address the issue of infrastructure costing. The final section asks if stochastic scenario development techniques can be considered as part of this development project.

(1) Effectiveness of locational signals

The principle behind this objective is that developers at the initial phase of a project, (either for new generation or demand capacity) will consider the prevailing or anticipated locational signals as a criterion in their site selection process.
This objective is predicated on the future locational signals either remaining relatively stable or at least reasonably predictable over the timeframe in which a developer recoups his investment.
However, as was clearly shown at the workshop in March, historical patterns of changes in locational signals, such as TLAF have shown dramatic changes in a period of five years, (ref IWEA presentation on evolution of TLAFs in Donegal area from 2004 – 2009)
These changes occur largely on the basis of changes to the transmission system in terms of new generation/demand connections, retirements of existing generation/demand and/or changes in the overall generation portfolio mix or demand profiles, which are outside the control of a potential developer.
The example quoted above should also be considered in the context that the timeline for bringing a new generation projects from site selection to a commercial operating state is at least 5-7 years, to procure the necessary planning permission, grid connection, IPPC licence (if required), EPC contract and finance and to allow for the necessary delivery and construction periods.

Bord na Móna contend that locational signals cannot act as a significant incentive for development in a particular location, unless there is a level of certainty available to a developer that these signals won't deteriorate significantly, either during the development phase or shortly after commencing operations. In the absence of such certainty, the potential volatility of locational signals offers no incentive to locate in one area over another. In fact, the volatility adds a level of risk to financing such projects and will only serve to increase the investment costs of adding generation capacity to the system.

(2) Cost of network assets

The paper does not propose a method for setting or benchmarking network costs against international norms. This is a critical part of efficient network development which should ensure that the customers who pay for the grid infrastructure get best value in the cost of developing it.
The context for this is a very significant increase in the standard pricing for grid infrastructure in recent years. There is also a lot of anecdotal evidence, as expressed at the previous workshop in March that the cost of developing transmission infrastructure through contestable build has led to savings of 50% over grid offer prices.
In this regard, it is appropriate that the TUoS assessment should look at international best practice in the costing of network infrastructure. The development of an independent costing model by the SEMC could also act to incentivise the TSOs and/or TAOs in the delivery of more price effective infrastructure.

(3) Stochastic techniques in load flow scenario development

At this relatively early stage of the evaluation of alternatives, the project team should consider evaluating the applicability of new stochastic techniques which have been used in the assessment of portfolios with high penetration levels of intermittent generation. These techniques have been applied in areas of network and operational planning such as generation adequacy assessments and unit commitment scheduling, e.g. workstream 2b of the All Island Grid Study.

The principle of stochastic or probabilistic planning techniques is to assess multiple scenarios and generate an aggregate result on the basis of the probability of each scenario. This technique would require the estimation of moment generating functions for the parameters varied between scenarios.

This approach may be appropriate in the generation of load flow scenarios used in the development of the TUoS and TLAF rates. In principle, it should give a more robust result, especially for generation plant which are subject to very low load factors, or have intermittent output.

It is acknowledged that there may be a significant development overhead in this approach. However, it is likely that this type of approach will be required in the long run for the expected portfolio of intermittent renewables and lower load factor conventional plant which will be required to meet the RES-E target.

For and on behalf of
Bord na Mona Energy Ltd

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