INTRODUCTION

In response to legislative requirements and policy considerations, potential future changes to electricity market provisions in the SEM may emerge. Currently, there are a number of such initiatives that potentially represent future changes to the current market arrangements. Whilst these are often longer-term initiatives, where policy or legislation dictates change to the SEM arrangements and its supporting systems, early engagement and interaction is vital. This will ensure that SEMO meets its obligations to comply with all relevant statutory requirements and remains responsive to the current and future needs of the electricity market across the island of Ireland and with neighbouring markets to which we are interconnected.

This Forward Work Programme paper sets out a number of initiatives/issues that are currently on the future SEM agenda. Whilst details of the initiatives are not fully established, and so no definite Capex allowance can or has been identified, it is appropriate to set out these areas for future awareness and discussion.

The initiatives/issues as outlined below are not a definitive list but rather our belief in what is likely to be addressed based upon the future work programmes of the Regulatory Authorities and industry developments within the three year period, 2010 – 2013.
SEM REGIONAL INTEGRATION

The SEM Committee has recently consulted on options for greater Regional Integration. This consultation\(^1\) included options on intra-day trading, balancing mechanisms and market coupling. In particular, this consultation considered aspects of Interconnector operation that must be developed for planned future Interconnectors and the impacts of market coupling as a medium term option.

In March 2010, the SEM Committee published the responses received and a paper that sets out a number of decisions that the SEM Committee has taken in light of the consultation and other related developments\(^2\).

Following this a Modification Proposal\(^3\) was submitted on intra-day trading for the March 2010 meeting of the Modifications Committee with the intention of establishing a Working Group. This Working Group is to consider the options further having due regard for: the advantages of aligning intra-day trading arrangements in the SEM with those on the IFA and BritNed; the desire for intra-day trading to affect ex post SMP; the benefits and drawbacks of multiple gate closures and the key timings and interactions to consider (e.g. initial operations schedule, wind forecasts etc.); the degree to which the SEM design can accommodate multiple gate closures; the compatibility of the Project Co-ordination Group (PCG) target model for continuous intra-day trading with the SEM design; the interactions with explicit forward capacity auction proposals and market coupling proposals; the interactions with dispatch in general and wind dispatch in particular; the relative merits of Use It Or Lose It and Use It Or Sell It.

The intention following a number of Working Group meetings is that the SEM Committee receive a recommendation for approval of the Modification Proposal (with any subsequent revisions) no later than the end of September 2010.

Given SEMO’s position at the interface between SEM policy decisions and implementation of those policies, it has a key role to play in the successful and timely realisation of an intra-day trading solution. A Modification of this nature will require extensive analysis, consultation with Market Participants on both the commercial and technical aspects of the changes, development of the specific Central Market Systems (CMS) and SEMO business process changes, impact assessment of those changes (including impacts on affected parties) and assistance in the final legal drafting of the agreed change for resubmission to the Modifications Committee. In terms of implementing an intra-day trading solution, the potential scale of the changes to SEM CMS and SEMO business processes alone should not be underestimated and, in order to satisfy the ambitious timelines for delivery, these changes will likely require resources on a similar scale to that of the Day 1+ Project.

CAPACITY PAYMENT MECHANISM MEDIUM TERM REVIEW

The SEM Committee Medium Term Review of the Capacity Payments Mechanism (CPM) is currently underway\(^4\). This review aims to examine if the current design of the CPM can be further improved upon to meet current and future needs of the all island power system.

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\(^1\) SEM Regional Integration Consultation Paper, [SEM-09-096](#)
\(^2\) SEM Regional Integration Decision Paper, [SEM-10-011](#)
\(^3\) Intra Day Trading Modification Proposal, Mod_18_10
\(^4\) Capacity Payment Mechanism Medium Term Review Information Note, [SEM-09-105](#)
The review composes a number of work packages including:

- Assessment of CPM in the SEM
- Impact of CPM on customers
- Incentives for Generators Capacity
- Payments when Capacity is needed
- Distribution of Capacity Payments
- Capacity Requirement Calculation
- WACC Methodology
- Infra Marginal Rent and CPM
- Impact of Exchange Rate in CPM
- Treatment of Wind in CPM
- Treatment of Interconnectors in CPM
- Relationship of CPM with Ancillary Services
- Impact of Diversity of Generation and Security of Supply

The CPM is a key component of the SEM and one that aims to provide a stable revenue stream to generation units while at the same time providing an incentive to encourage availability when it needed most.

SEMO anticipates the publication of the consultation in September 2010 and intends to ensure, in collaboration with our colleagues in EirGrid and SONI, that the appropriate level of resources are available to support the work of the Regulatory Authorities and Market Participants in this regard. Specifically, to ensure that any decisions made in April 2011 are fully informed with regard to impacts on the CMS and SEMO business processes, any changes to the Trading and Settlement Code will require detailed assessment.

In addition, SEMO is in a position to provide valuable knowledge and understanding of what is one of the more complex components of SEM. This detailed understanding of the mechanism has been gained from our experience in developing the CPM with the Regulatory Authorities during the SEM Implementation Project and through our experience of settling it on a month-to-month basis.

**PRINCIPLES OF DISPATCH AND THE DESIGN OF THE MARKET SCHEDULE**

In February 2008, the Regulatory Authorities published a consultation relating to the treatment of increasing levels of wind generation in the SEM. Following responses, a further paper was published in July 2009, which sought to address issues raised and focuses particularly upon generation dispatch and on the design of the Market Schedule. This paper is wide-ranging, with all potential options having some impact on the CMS.

As a result, SEMO will be required to participate in further discussions with relevant parties and provide assessment of impacts, costs and implementation timescales for the preferred options as they emerge from the consultation process.

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5 Wind Generation in the SEM, SEM-08-002
6 Principles of Dispatch and the Design of the Market Schedule in the TSC, SEM-09-073
It is likely that this future programme of work will incorporate a number of complex issues including:

- Wind Dispatch Instructions not currently considered by the CMS (including frequency regulation instructions).
- Potential market changes to the treatment of Firm/Non-Firm Access.

As the impact on rules and systems could potentially be significant, SEMO intends to undertake any required analysis to identify the implications of different policy changes on SEMO’s business processes and the CMS that may arise as a result of this work.

**GLOBAL SETTLEMENT**

It has been recognised for some time that full retail competition as well as other drivers for more accurate metering will require global aggregation of supplier volumes. While this is predominately a retail concern, the implementation of any global settlement solution will have impacts on the Trading and Settlement Code and CMS e.g. in the treatment of the Error Supplier Unit.

Currently, the Error Supplier Unit calculated volume is used as the settlement volume for the host energy supplier in each jurisdiction, as global aggregation has not been implemented. In order to manage the Error Supplier Unit volumes post implementation of a global aggregation solution, Modifications will be required to the Code (see Mod_34_09) and further changes will be required to the CMS to implement these new rules.

SEMO has been actively involved in the Working Groups arising from Mod_34_09 in the investigation of a number of potential solutions. SEMO continues to work closely with the Meter Data Providers to ensure the most efficient solution is implemented.

It is likely that global settlement will be implemented in line with the upgrade to NIE T&D’s systems due to go live in early 2012.

**GENERATOR SHORT TERM TEST**

In November 2008, the TSOs submitted a Modification Proposal that proposed the introduction of a “Short Term Test Status” and associated rules to account for “within day” Generator Unit testing. Currently, such Generator Unit testing is facilitated by TSOs via a workaround process that is not considered an enduring solution. At Meeting 25 of the Modifications Committee Meeting, this proposal was recommended for approval, following a high-level impact assessment by the CMS vendor.

Implementation of this Modification will require significant changes to the CMS and SEMO business processes. The TSOs are currently finalising the details of the change prior to the submission of a detailed change request. This will require further work on the part of SEMO including work to ensure that the final solution is incorporated in to the Agreed Procedures.

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7 Mod_34_09 and associated documents, Modification Proposals
8 Generator Unit Short Term Test Status, Mod_65_08
MARKET POWER AND LIQUIDITY IN THE SEM

The SEM Committee has indicated\(^9\) its intention to carry out a review on matters of market power and liquidity in the wholesale market, both in the SEM and in the contracts market around the SEM. This will occur in the context of recent submissions regarding industry changes and progressive deregulation of ESB. The SEM Committee have indicated that there will be a full consultation as the review progresses. As part of the review the SEM Committee will consider:

- Current and likely future levels of market power/liquidity in the SEM.
- The effects of market power mitigation measures.
- The effects of ESB’s reintegration proposal on market power/liquidity and mitigation measures.
- Other ideas for improving liquidity and/or reducing market power.

SEMO intends to identify, in consultation with others, the implications of any policy developments on SEMO’s business processes and the CMS that may arise as a result of this work.

UPLIFT REVIEW

Towards the end of 2010, the SEM Committee has indicated\(^10\) its intention to issue a consultation paper on this aspect of SEM pricing with a view to finalising it in early 2011. The Uplift mechanism is in place to ensure that Generator Units recover their cost of running through the SMP.

Areas that will be under consideration include:

- Measure of uplift component of price.
- Actual start-up and no-load costs.
- Revenue through uplift and infra-marginal element.
- Assessment against SMP objectives.
- Overview of incentive compatibility of SMP algorithm.
- Modelling an alternative cost recovery method and assessment against SMP objectives.

Any changes to the Market Scheduling and Pricing (MSP) Software that may arise from this review will require extensive analysis and impact assessment. Any changes to the Uplift formulation will also involve recertification of the MSP Software.

SEMO intends to identify, in consultation with others, the implications of any developments on SEMO’s business processes and the CMS that may arise as a result of this work.

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\(^9\) Strategy Day Information Paper, SEM-10-013
\(^10\) Strategy Day Information Paper, SEM-10-013
FUEL MIX DISCLOSURE

EU Directive 2003/54/EC requires each Member State to ensure that Electricity Suppliers make information on the contribution of each energy source to the overall fuel mix available to end customers. The responsibility for discharging this obligation is with the Regulatory Authorities (CER in RoI and NIAUR in NI).

Following industry discussion and consultation, SEMO was appointed in July 2009 as the interim body responsible for the calculation of fuel mix data. Once the required data has been calculated and verified by SEMO, it is to be provided on an annual basis to Suppliers registered in the SEM.

In order to discharge its responsibility with respect to fuel mix disclosure, SEMO is investigating the development of systems/tools that will facilitate the accurate and timely delivery of the data required.

This will impact on both resources to manage the process, along with any new or amended systems required. An important consideration also will be to ensure insofar as is possible that any changes implemented for the interim solution are compatible with the enduring one.