SINGLE ELECTRICITY MARKET COMMITTEE

Integrated Single Electricity Market (I-SEM)
Next Steps

SEM-14-085e

17 September 2014

I-SEM PROJECT: NEXT STEPS

1.1 BACKGROUND

In March 2013 the Department of Enterprise, Trade and Investment (DETI) and the Department of Communications, Energy and Natural Resources (DCENR) endorsed recommendations of the Single Electricity Market Committee (SEMC) in its implementation of the European Target Model for the 'Single Electricity Market, Next Steps Decision Paper (SEM/13/009). The 'Next Steps' paper proposed a project to develop a High Level Design of the SEM in light of the requirement of the European Target Model.

A final decision paper detailing a High Level Design (HLD) for the new market was also endorsed by DETI and DCENR and published on 17 September 2014 (SEM-14-085a). This followed publication of a Consultation paper (SEM-14-008) and Draft Decision paper (SEM-14-045). The decision paper defines the scope of the next phase of the project, called the 'Detailed Design and Implementation' phase (phase 3), and is the key control and reference document to guide development of the detailed market design.

The 'Detailed Design and Implementation' phase is a large and complex programme of work which will span over more than two years, involve multiple and diverse stakeholders, with the ultimate aim of successfully delivering the new Integrated Single Electricity Market (I-SEM) in an effective and efficient manner. The key objective is to deliver compliance with the EU Target Model alongside the establishment of a more competitive and efficient market.

1.2 OBJECTIVES

The 'Detailed Design and Implementation' phase (phase 3) requires development of a detailed market design which reflects the HLD decisions. Phase 3 will involve targeting the following objectives:

- developing a detailed design for the Energy Trading Arrangements (ETA) and the Capacity Remuneration Mechanism (CRM);
- development of measures to mitigate market power and to foment forward liquidity

- developing a set of detailed codes and rules for the I-SEM, dependent on the high level design decision paper;
- development of the market rules, i.e. the Trading and Settlement Code (T&SC) and other rules, procedures and licence modifications as required;
- assessment of operational readiness (of the TSOs, MO and Power Exchange) in advance of implementation of the chosen market design; and
- enactment of any required legislation for the introduction of the new market in Northern Ireland and Ireland.

Phase 3 will be divided into two stages, the detailed design stage and the implementation stage. Each stage will be further defined by a number of workstreams as reflected in the table below. The table reflects a high level of information. A detailed programme of activities for each workstream, identifying consultation dates and dates for stakeholders engagement is well progressed; publication of this more detailed programme information is scheduled for 10 October 2014.

	WORK STREAM NAME	DESCRIPTION
Detailed Design stage – Regulatory Authorities leading	Energy Trading Arrangements	• Consultations ○ Balancing Market ○ Imbalance Market ○ DAM and IDT Markets ○ Losses, Firm Access, & Priority Dispatch ○ Detailed Market Rules ○ Market Participant Readiness
	Capacity Remuneration Mechanism	• Consultations ○ Capacity ○ Requirement ○ Strike price, reference price ○ Supplier arrangements ○ Auction Rules ○ Collateral and Settlement ○ Market Participant Readiness
	Market Power	• Consultations ○ Ex-Ante measures ○ Ex-Post measures ○ Broad Principles ○ Form of RA Role ○ Market Participant Readiness
	Forwards & Liquidity	• Consultations ○ Transmission Rights ○ Forwards CfDs ○ Liquidity promotion ○ Market Participant Readiness
	Governance & Licencing	• TSO Regulation • PX Exchange • Market Participant Readiness
	Central Arrangements	• Input to Detailed Design and rules • Agreed Procedures • Network Code Methodologies

Systems Implementation stage – Transmission System Operators leading		• Licence Changes • NEMO Establishment

	Central Systems & Service Implementation and Testing	• Solution Architecture
		  ○ Sourcing Strategy
		  ○ Existing System Impact Assessment
		• Service/System Provider Oversight
		  ○ Functional Design
		  ○ Build
		  ○ Factory/Site Testing
		  ○ Integration Testing
		  ○ User Acceptance Testing

	Operational Capability	• User Requirements Specification
		• Process Design
		• Operational Readiness
		  ○ Operational Transition planning
		  ○ Operational Readiness Monitoring
		  ○ Funding
		  ○ Facilities
		  ○ Market Trial Participation
		  ○ Commercial Arrangements

	Participant Engagement & Market Readiness	• External/ Internal Stakeholder Communications
		• Training
		  ○ External
		  ○ Internal (TSO/MO)
		• Market Readiness Monitoring
		• Query Management/Helpdesk
		• Market Trial
		  ○ Planning and Agreements
		• Preparation & Management

You will note that the regulatory authorities are leading on the detailed design stage, with the transmission system operators leading on the systems implementation stage. This acknowledges the key role of the TSOs during the implementation stage. The TSOs central systems are currently designed around the SEM wholesale market and the associated scheduling and dispatch procedures. As part of the I-SEM project all of these systems will need to be reviewed to assess their compliance with the I-SEM high level design (HLD). Modelling for Generation Adequacy and capacity requirements will also be required and executed by the TSO's.

In addition to tasks allocated to the RAs and TSOs, market participants will have an important role to play in realizing the project objectives. Development of relevant systems to align with the market design and assurance of operational readiness will be key to successful I-SEM implementation.

In order to achieve the programme objectives, the RAs will work closely and collaboratively with the TSOs to coordinate all outputs and deliverables. Phase 3 of the I-SEM project will be underpinned by a strict project management governance structure with the deliverables for phase 3 remaining the responsibility of the regulatory authorities and SEM Committee.

1.3 STAKEHOLDER ENGAGEMENT

In order to ensure that the overall objective of delivering and implementing the new I-SEM market is successful, it is crucial for the RAs to engage effectively with stakeholders.

Similar to the High Level Design (HLD) phase of the I-SEM project, the RAs intend to engage with stakeholders in many different forms through working groups, workshops and formal consultations. The feedback received from such engagement will be a vital contribution, informing the development of this phase of the overall I-SEM project.

As part of the development of detailed policy design, the RAs will hold 'Working Group' meetings which will be made up of the RAs/ TSOs/ Interconnector owners and nominated members from participants and interested parties. The stakeholders' role will be advisory and the Working Groups will be chaired and co-ordinated by the RAs. A detailed terms of reference for the working groups will be issued by the RAs, and nominations will be sought in September/ October 2014.

Stakeholder engagement review groups, workshops and consultations will pertain for each detailed design work stream. The specifics and dates for each will be published with the detailed programme on 10 October 2014. However given the demanding timeline, work has been advanced on the Energy Trading Arrangement work stream and an information paper on this will be published on the All Island Project website on 23 September 2014.

1.4 PROJECT INITIATION, GOVERNANCE AND OVERALL PROGRAMME

Project Initiation

In advance of the publication of the HLD decision paper, the RAs commenced preparations for Phase 3. Initial internal planning includes:

- Procurement of expert consultancy support in the areas of market design and project management;
- Setting up a Project Office to support the Project Manager;
- Preparing an internal Project Initiation Document (PID) to outline the project scope; and
- Engaging with the DCENR and DETI, setting out the key milestones to achieve compliance with the target model.

The Project Team has established five key workstreams which have all been allocated a manager with supporting analysts. These workstreams are:

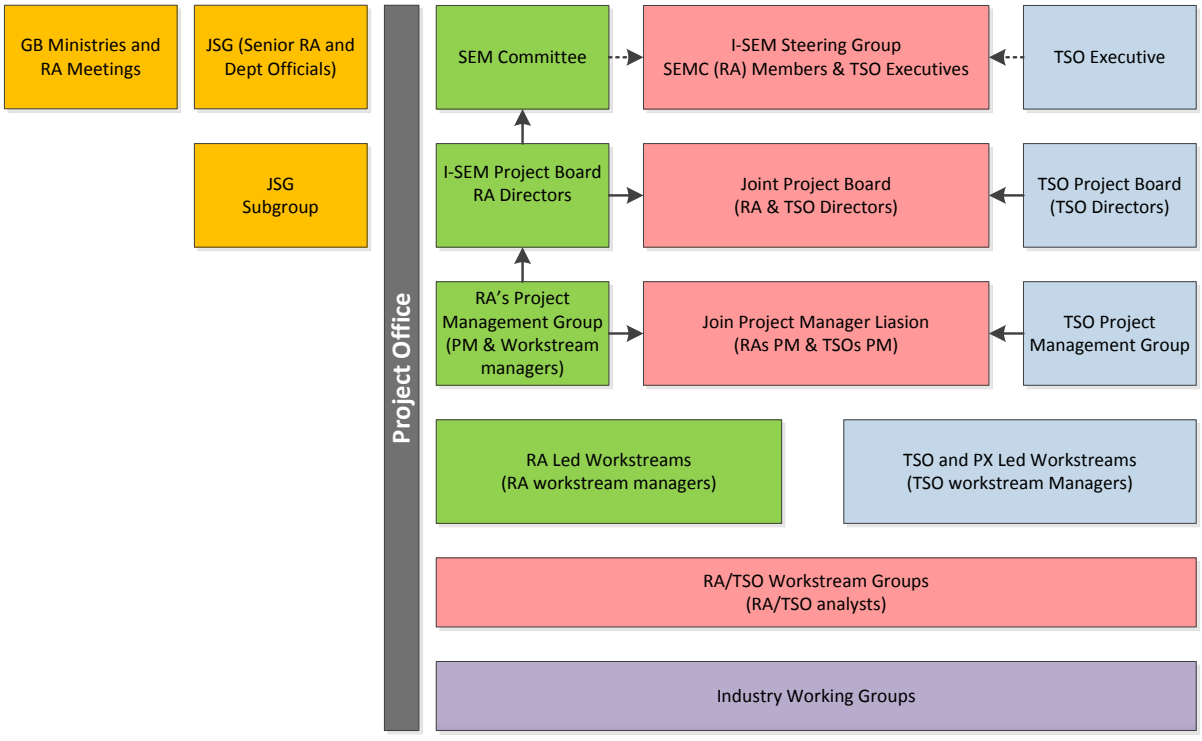
- Energy Trading Arrangements
- Capacity Remuneration Mechanisms
- Market Power Mitigation
- Forwards & Liquidity
- Governance and Licensing

In parallel to these workstreams, a legislative review and development of the necessary market rules to align with the new market will be progressed. The regulatory authorities are also very mindful of the DS3 programme focused on addressing the main challenges to operating a safe and secure system with a high proportion of renewable and non-synchronous generation. The I-SEM project team and the DS3 project team will continue to work closely to ensure both alignment of programmes and decisions for these two important projects.

Project Governance

For such a complex and important project, robust project management and governance play an important role in ensuring its successful delivery. A formal and robust approach has been taken in this regard, with a regulatory authority Project Initiation Document developed and an Agreed Approach Document between the RAs and TSOs signed.

Governance arrangements have also been defined as depicted in the diagram below. These reflect the significant role that the Transmission System Operators have in the development of and implementation of the central systems and services, with a Joint Project Board and Steering Committee having been established. It is however important to emphasise that responsibility for delivery and policy decision making rests with the Regulatory Authorities and SEM Committee.



Overall programme

Work has commenced on all five workstreams and the RAs are well advanced in developing the overall programme for this detailed design and implementation phase. The RAs have

contributed significant effort to the development of a credible project timeline with key milestones for Phase 3 of I-SEM. This has included extensive engagement with the TSOs to ensure that the timeline identifies interdependencies and critical paths. A significant factor in the development of the plan has been stakeholder engagement and market readiness. Work to finalise the I-SEM programme is ongoing, however the RAs will publish a final overall programme for this phase by 10 October 2014.

The RAs are currently in discussion with the European Commission regarding the overall programme and a definitive Go-live date.

Given the pressing programme, and the criticality of the Energy Trading Arrangements workstream to delivery of the overall programme, work in this area has been prioritised and advanced. The RAs are pleased to advise that they will publish on the All-Island Project website an information paper for this work stream on 23 September 2014. The paper will call for market participant representatives for Working Groups in relation to Day Ahead and Intraday markets, treatment of firm access, balancing market design, imbalance settlement, treatment of losses, treatment of priority dispatch, treatment of transmission constraints, ancillary services and collateral requirements. The paper will also set out the key milestones for consultations and decisions for this workstream.