



**Transition from the Existing
Bilateral Markets to the
Single Electricity Market**

AIP-SEM-07-53

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1 Introduction

1.1 Purpose and Scope of the Document

The Single Electricity Market (SEM) will be a single wholesale electricity market on the island of Ireland, bringing about significant changes to the electricity trading arrangements and associated regulatory, transmission and other ancillary arrangements in Northern Ireland and Ireland. The purpose of this document is to set out the transition approach from the current bilateral markets to the implementation of the SEM.

This paper will address the period from the first exercise of the powers to implement the SEM, SEM “Go Active”, to full implementation of the SEM, SEM “Go Live”. Market cut-over and the run-off of the existing markets will not be addressed in this paper¹.

1.2 Background

In August 2004, the Northern Ireland Authority for Energy Regulation (NIAER) and the Commission for Energy Regulation (CER), from herein referred to as the Regulatory Authorities (RAs), signed a Memorandum of Understanding to develop an all-island electricity market. In November of that same year, the Department of Enterprise, Trade and Investment (DETI) and the Department of Communication, Marine and Natural Resources (DCMNR) published an All Island Energy Market Development Plan, which sets out the governments’ plans for an all-island energy market. The SEM is the first stage of this plan to achieve an all-island energy market. The SEM is expected to result in reduced electricity costs to customers and provide greater security of supply to the island.

The RAs published a draft version of the Transition Approach paper for consultation on the 10th November 2006. Two participants submitted

¹ A detailed cut over plan will not be published until early October 2007. A note explaining the run-off of the existing markets will be published in April.

comments in response to the paper. The RAs have incorporated a number of the suggestions included in these responses in this final document.

1.3 Transition to the Single Electricity Market

The transition from the existing bilateral electricity markets to the SEM must ensure that all necessary steps have been taken such that the full implementation of the SEM can take place on the 1st November 2007.

To do this, the existing market obligations and activities must be carried out to the extent appropriate to keep the current markets operating fully and the activities that are needed to ensure forward-looking obligations in the new codes must be met completed prior to Go Live (e.g., registration).

1.3.1 SEM Go Active

SEM Go Active will mark a distinct point of the SEM implementation where the RAs and the Secretary of State, Northern Ireland will begin to exercise certain SEM powers and place obligations on electricity licensees, requiring licensees to take the necessary steps to prepare for SEM Go-Live. SEM Go Active is scheduled to begin on 3rd July 2007. The achievement of this date is dependent upon legislation being enacted to allow the necessary changes to the statutory frameworks of the electricity sector to be made and so that the powers necessary to implement the SEM are in place.

On 3rd July 2007, a “signing day” will be scheduled to mark the start of the Go-Active phase. At the signing day all licensees who will be actively participating in the SEM² will be required by new licence conditions to accede to a Transition Agreement. This agreement will set out the transitional obligations that are not contained in the new licences, contracts or codes. (The RAs will consult on the contents of the Transition Agreement in April, 2007.)

² The licence obligation will be placed upon all active suppliers and all generators with an MEC greater than or equal to 10MW. A generator may appoint an Intermediary to fulfil this obligation, subject to approval by the RAs.

1.3.2 SEM Go Live

SEM Go Live will mark the date when the SEM becomes operational and the full commercial effect of the SEM will be switched on. This is scheduled to occur on 1st November 2007. In order to achieve this date, the following activities must have been completed:

- The necessary regulatory decisions have been or are ready to be enacted to provide the regulatory framework for the SEM.
- The new joint regulatory arrangements have been or are ready to be put into place.
- All necessary licence and contractual arrangements have been or are ready to be put into effect.
- The SMO has been established such that all necessary resources, processes and procedures are in place; the central systems, along with participant interfaces to these systems have been designed, tested, and audited and are ready for full implementation.
- Retail market systems modifications have been built, tested and are ready for full implementation.
- The SMO has advised that wholesale market trials have been successful.
- The TSOs have established new working arrangements with each other, with the SMO, and their associated TAO, taking into account the SEM. All systems modifications necessary to support these arrangements have been / are ready to be implemented.
- The Meter Data Providers have implemented the new metering arrangements and are able to provide the SMO and Participants with metered data necessary for the systems trials and subsequently for SEM Go Live.
- Participants have modified their business processes to meet the new requirements under the SEM, have complied with or are ready to comply with their obligations under the SEM legal framework, and have completed any necessary systems modifications to support these

processes and enable them to communicate with the central market systems.

2 Approach to Monitoring Programme Readiness

An SEM project plan has been developed which contains all project milestones necessary for the delivery of the SEM. The Transition workstream will track the critical project milestones to ensure that they are progressing according to the project plan and measure the programme progress against performance indicators.

Monitoring the critical milestones will provide advanced warning of any risks to the achievement of the SEM Go Active / Go Live dates and will enable the AIP project team to address any issues that may impact these dates before they become critical, to ensure an on-time implementation of the market.

The Go Active and Go Live assessment indicators have been set out in the Appendices. During the Go Active phase of the market, the RAs will produce weekly reports on the Go Live indicators which will be submitted to the SEM Committee. The results of this monitoring exercise will also be published on the AIP website.

3 SEM Go Active Decision

The decision to initiate the Go Active phase of the SEM is dependent on the required legislation being in force in both jurisdictions to implement the SEM and the SEM licences being finalised (see Appendix A). Once the legislation has been enacted and the licences are finalised, the RAs and the Secretary of State, NI will announce the SEM Go Active start date, giving participants at least two weeks notice. Once announced, the SEM Go Active date will not change.

4 Go Live Decision-making Criteria

The Go Live recommendations will be made at the conclusion of a period of continuous assessment of the programme progress. The criteria will be measured over time until there is sufficient confidence that each criterion has been met (see Appendix B).

To enable more efficient tracking of the criteria, they have been separated into the following categories: Central Systems Readiness, SMO Readiness, TSO Readiness, Meter Data Provider Readiness, Retail Market Readiness, Governance Readiness and Participant Readiness.

4.1 Central Systems Readiness

Central Systems Readiness criteria are comprised of the critical milestones in the implementation of the new systems necessary to support the SEM and the enhancement of existing systems. This preparation includes the development, testing and implementation of the central systems and the appropriate participant interfaces.

4.2 SMO Readiness

SONI and Eirgrid must have established a Single Market Operator (SMO) and created the SMO function. This will include, but is not limited to, obtaining resources and gaining budget approval for the SMO, establishing SMO governance and dispute procedures, and entering into the necessary information sharing arrangements with the TSOs and the DSOs.

4.3 Transmission System Operator (TSO) Readiness

Under the SEM, the roles of the TSOs are significantly changed. In light of the SEM, the TSOs will need to enter into a System Operators Agreement (SOA), to align transmission system processes in both jurisdictions. This will ensure that the TSOs have regard to the SEM when operating the transmission system.

Under the SEM, the TSOs statutory and licence obligations will be revised. The TSOs must have implemented or be ready to implement the contractual and process arrangements required under the SEM, including processes to communicate with the SMO and their associated TAO and the IT modifications necessary to support these processes.

4.4 Meter Data Provider Readiness

In order to support the SEM, the metering arrangements in both jurisdictions required for settlement of the SEM must be in place, along with the appropriate changes to the associated contracts and codes.

4.5 Governance Readiness

Governance readiness criteria are comprised of milestones which align market legislation, regulation, contracts and codes.

In conjunction with the Regulatory Authorities, DETI and DCMNR are progressing legislation that will set out the duties, functions and powers of the SEM Committee. The SEM Committee will be responsible for the regulation of the SEM. DETI and DCMNR will appoint the members of the SEM Committee prior to SEM Go Live.

The Regulatory Authorities will ensure that all necessary regulatory decisions have been published (Appendix C) and that the necessary Core Industry Documents have been amended and approved by the RAs prior to SEM Go Live (Appendix D). Changes to licences, contracts and codes will be managed by various parties, as set out in Appendix E.

4.6 Participant Readiness

The participant readiness criteria are those tasks that must be completed by all participants (or their Intermediary) in order to participate in the SEM. These include the self-certification that business processes and IT systems have been implemented to support trading in the SEM, participation in Market Trials, accession to and compliance with the Trading & Settlement Code and compliance with the applicable Grid Code (see Appendix F). Participants (or their Intermediary) will be expected to self-certify their readiness to participate in the SEM by the 5th October 2007. The RAs will require the SMO to provide information on Market Participants provision of registration data, participation in market trials and accession to the Trading and Settlement Code. The RAs will require the SOs to provide confirmation that Participants are in compliance with the Grid Codes in each jurisdiction.

5 SEM Go Live Decision

The decision to put the SEM into live operation will be made by the SEM Committee and the Secretary of State, NI, supported by information provided by the All Island Project (AIP) Team, towards the conclusion of market trials.

The AIP Team will prepare a report for the SEM Committee and the Secretary of State, NI prior to the Go Live target date, providing an assessment of the achievement of the Go Live criteria and highlighting any targets that have not been met (Appendix B). This report will be supplemented by an SMO report on the results of the wholesale market trials to date³, a report from ESB Networks and NIE T&D on the results of the retail market trials, and the results of the audits conducted on the market systems.

Any criterion that has not met its performance target will be reviewed by the SEM Committee and the Secretary of State, NI to assess the significance of the risk it poses to the Go Live date and determine what, if any, contingencies

³ As the report will need to be prepared for the SEM Committee at the beginning of October, weekly update reports will be required from the SMO until the conclusion of the market trials.

can be implemented to mitigate the risk. The SEM Committee and the Secretary of State, NI will assess if the risk can be mitigated or if the significance of the risk is sufficient to require a No Go decision. If the risk cannot be mitigated and the criterion is considered to significantly impact the ability to Go Live, the SEM Committee and the Secretary of State, NI will recommend a No Go decision.

The SEM Committee and the Secretary of State, NI will make an announcement two weeks prior to the Go Live target date to confirm the intention to Go Live on the 1st November 2007. Once the Go Live announcement has been made, it is not expected that the Go Live date would change except in the most exceptional of circumstances. Such circumstances may include extreme weather conditions that would effect the integrity of the transmission system.

Appendix A Go Active Required Legislation

Responsibility	#	Legislative Change Required	Targeted Completion Date	Actual Completion Date
DETI	AG2a	Participant Licences – Northern Ireland (PES, Second Tier Supply, Generation, SONI, SMO, NIE T&D)	1 st June 2007	
DCMNR	AG2b	Single Electricity Market Act	1 st May 2007	5 th March 2007
DETI	AG2c	Electricity Act – N. Ireland	1 st June 2007	
DCMNR / CER	AG2d	Secondary Legislation in Ireland	15 th June 2007	

Appendix B Go Live Indicators

Category	Responsibility	#	Go Live Indicator	Indicator level at which sufficient confidence exists that the criteria is met	Current indicator level
Central Systems Readiness	SMO	CS1	Central Systems Testing successfully completed	To be determined by SMO	
Central Systems Readiness	RAs	CS2	Central Systems Audited to ensure compliance with T&SC	Independent Auditor reports compliance	
Governance Readiness	RAs / SOs / SMO	GR1	Percentage of Regulatory Decisions necessary for Go Live that have been published (see Appendix C)	100%	
Governance Readiness	RAs	GR2	Percentage of Core Industry Documents necessary for Go Live that have been signed off (see Appendix D)	100%	
Governance Readiness	RAs	GR3	Percentage of Contractual Agreements necessary for Go Live that have been published (see Appendix E)	100%	
Governance Readiness	RAs	GR4	Cut over plan finalised / ready to be implemented	Cut over plan in place	
Governance Readiness	RAs	GR5	T&SC Mod Panel set up ⁴	Panel appointed	
Governance Readiness	RAs	GR6	SEM Committee Established	Committee established	
Governance Readiness	RAs	GR7	Market Monitor Established	Monitor function in place	
Meter Data Provider Readiness	RAs / ESB Networks/ NIE T&D	MD1	Harmonized metering arrangements in place	Metering arrangements signed off and implemented	
Meter Data Provider Readiness	RAs / ESB Networks/ NIE T&D	MD2	Audit of Metered Data Providers Systems / Data feeds to SMO to ensure compliance with the T&SC	Independent Auditor reports compliance	

⁴ The Modifications Panel for the Trading and Settlement Code cannot be appointed until all parties have acceded to the Code. The appointment process is expected to begin in October 2007.

Category	Responsibility	#	Go Live Indicator	Indicator level at which sufficient confidence exists that the criteria is met	Current indicator level
Retail Market Readiness	ESB Networks	RM1	Retail market trials successfully completed (Ireland)	100%	
Retail Market Readiness	NIE T&D	RM2	Retail market trials successfully completed (Northern Ireland)	100%	
Participant readiness	Participants	PR1	Percentage of Participants that have met readiness targets (see Appendix F)	100%	
SMO Readiness	SONI / Eirgrid	MO1	SMO established	SMO to self-certify	
SMO Readiness	SMO	MO2	Dispute resolution procedures established	Procedures established	
SMO Readiness	SMO / RAs	MO3	Dispute resolution panel approved	Panel approved by RAs	
TSO Readiness / SMO Readiness	TSOs / SMO	SO1	Communication processes established between SMO and TSOs	Formal processes established	
TSO Readiness	TSOs	SO2	Audit of TSO despatch systems to verify compliance with industry codes / agreements	Independent Auditor reports compliant	
TSO Readiness	TSOs	SO3	Audit of TSO data feeds to SMO to verify compliance with industry codes / agreements	Independent Auditor reports compliant	

Appendix C Go Live Regulatory Decisions / Approvals

Responsibility	#	Decision / Approval	Targeted Completion Date	Actual Completion Date
CER / NIAER	GR1a	Directed Contracts –pricing methodology, form, allocation	3 rd November 2006	
CER / NIAER	GR1b	Transmission Loss Adjustment Factors	2 nd February 2007	
CER / NIAER	GR1c	SMP Uplift Parameters	9 th March 2007	
CER / NIAER	GR1d	TUOS Harmonisation	12 th March 2007	
CER / NIAER	GR1e	Capacity Payment Mechanism – Parameters for Go Live	18 th May 2007	
CER / NIAER	GR1f	Directed Contracts – framework agreement	30 th May 2007	
CER / NIAER	GR1g	Directed Contracts – price	18 th May 2007	
CER / NIAER	GR1h	SMO Tariff / Revenue	3 rd September 2007	
CER Electricity Markets	GR1i	ESB PES Tariff / Allowed Revenue	28 th September 2007	
NIAER Electricity Markets	GR1j	NIE PES Tariff / Allowed Revenue	28 th September 2007	

Appendix D Go Live Core Industry Documents

Responsibility	#	Document Name	Targeted Completion Date	Actual Completion Date
NIAER / DETI / NIE T&D	GR2a	NIE T&D General Conditions of Connection	23 rd March 2007	
NIAER / DETI	GR2b	Payment Security Policy	30 th March 2007	
CER / NIAER	GR2c	Market Operator Licence – Ireland	10 th April 2007	
NIAER	GR2d	Market Operator Licence - N. Ireland	10 th April 2007	
NIAER / PPB	GR2e	Public Electricity Supply Code	12 th April 2007	
NIAER / DETI	GR2f	2 nd Tier Supply Guidelines	17 th April 2007	
DETI	GR2g	Fuel Security Code – Northern Ireland	24 th April 2007	
NIAER / DETI	GR2h	De-energisation Codes of Practice	14 th May 2007	
NIAER / DETI	GR2i	Revenue Protection Codes of Practice	18 th May 2007	
CER / NIAER	GR2j	Trading and Settlement Code v. 2.0 and associated Agreed Procedures	31 st May 2007	
CER	GR2k	System Operator Licence – Ireland	8 th May 2007	
NIAER	GR2l	System Operator Licence - N. Ireland	8 th May 2007	
CER	GR2m	Transmission Asset Owner Licence – Ireland	13 th June 2007	
NIAER	GR2n	Transmission Asset Owner Licence - N. Ireland	13 th June 2007	
NIAER	GR2o	Supply Licences – N. Ireland	14 th June 2007	
CER	GR2p	Generation / Supply Licences – Ireland	19 th June 2007	
NIAER	GR2q	Generation Licences – N. Ireland	1 st June 2007	
CER	GR2r	Metering Code – Ireland	21 st June 2007	
NIAER	GR2s	Metering Code – N. Ireland	21 st June 2007	
CER / NIAER	GR2t	Transition Agreement	5 th June 2007	

Responsibility	#	Document Name	Targeted Completion Date	Actual Completion Date
NIAER / Moyle	GR2u	Moyle Transmission Licence	5 th June 2007	
NIAER	GR2v	Market Registration Code – N. Ireland	2 nd July 2007	
CER	GR2w	Grid Code – Ireland	3 rd July 2007	
NIAER	GR2x	Grid Code - Northern Ireland	3 rd July 2007	
NIAER	GR2y	Supply Code of Practice – N. Ireland	30 th August 2007	

Appendix E Go Live Contractual Readiness Indicators

Responsibility	#	Contractual Agreement	Targeted Signing Date	Actual Signing Date
SONI / Moyle	GR3a	Moyle Agreements	12 th April 2007	
SONI / NIAER / DETI	GR3b	Connection Works Agreement	18 th April 2007	
SONI / NIE T&D	GR3c	TSO / T&D Interface Agreement	23 rd April 2007	
SONI / NIAER / DETI	GR3d	SSS Contracts	5 th April 2007	
NIE T&D / NIAER / DETI	GR3e	Distribution Code – Northern Ireland	1 st May 2007	
CER / NIAER	GR3f	Joint Regulatory Agreement	5 th May 2007	
SONI / NIAER	GR3g	Generation Use of System Agreements (Transmission connected)	9 th May 2007	
SONI / NIAER / DETI	GR3h	Generator Connection Agreements (Low Voltage / High Voltage / Demand)	10 th May 2007	
NIAER / DETI / PPB	GR3i	PPB Suppliers Contract for PSO	15 th May 2007	
SONI / NIAER	GR3j	Generation Use of System Agreements (Distribution connected)	22 nd May 2007	
SONI / NIAER	GR3k	Supply Use of System Agreements (Transmission & Distribution)	29 th May 2007	
Eirgrid / Market Participants	GR3l	Transmission Use of System Agreements	1 st June 2007	
Market Participants / ESB PG	GR3m	Directed Contracts approved and offered to Market Participants	5 th June 2007 (offer date only - no signing date set)	
PPB / Market Participants / DETI / NIAER	GR3n	Intermediary Agreements (PPB & Gencos)	2 nd July 2007	
PPB / NIE T&D	GR3o	PPB / NIE T&D Interface Agreement	2 nd July 2007	
PPB / SONI	GR3p	PPB / TSO Interface Agreement	2 nd July 2007	
DETI / NIAER	GR3q	System Value Agreement	2 nd July 2007	
DETI / SONI	GR3r	PPB Contracts / Power Purchase Agreements	9 th July 2007	
DCMNR / ESB PES	GR3s	PSO Contracts	1 st August 2007	

Responsibility	#	Contractual Agreement	Targeted Signing Date	Actual Signing Date
Eirgrid / SONI	GR3t	SMO Market Operator Agreement	3 rd July 2007	
Eirgrid / SONI	GR3u	System Operators Agreement	28 th August 2007	
Eirgrid / ESB Networks	GR3v	Infrastructure Agreement	1 st October 2006	
Eirgrid / SONI	GR3w	T&CS Framework Agreement	28 th August 2007	
Market Participants / SMO	GR3x	T&SC Accession Documents	25 th September 2007	

Appendix F Go Live Participant Readiness Indicators

Participant Generator ⁵	Total MW	Self-certified SEM Readiness	Participated in Market Trials	Credit Cover Posted	Acceded to T&SC	Complied with Grid Code	Registration Data complete
Drumlough Hill (due to go live October 07)	10.20						
Lurganboy Wind Farm (Highland Wind Energy Ltd)	11.90						
Termonbarry Hydro	11.90						
Bioverda Methane (Ireland) Ltd.	12.00						
Moanmore Windfarm	12.60						
Beam Hill Wind Farm	14.00						
CRE Energy	15.00						
Dunmore Windfarm	15.00						
Tursillagh 1	15.18						
Raheen Barr (Matrix Energy)	18.70						
Booltiagh Wind Ltd.	19.45						
Althea (due to go live Q4 2007)	26.00						
Ballywater Wind Farm Ltd. (CHPower)	31.50						
Guinness	31.50						
RES-Gen Ltd. ⁶	31.88						
Wind Farm Developments ⁷	42.90						

⁵ The generators included in this listing are those with an MEC \geq 10MW that must participate in the market or may have Intermediaries acting on their behalf that will carry out the Go Live requirements.

⁶ Taurbeg and Cark Windfarms

⁷ Callagheen and Altahullion Windfarms

Participant Generator ⁸	Total MW	Self-certified SEM Readiness	Participated in Market Trials	Credit Cover Posted	Acceded to T&SC	Complied with Grid Code	Registration Data complete
SWS Energy ⁹	62.95						
Hibernian Wind ¹⁰	71.00						
Aughinish Alumina	110.00						
Edenderry Power Ltd.	121.50						
Airtricity ¹¹	151.71						
Viridian Energy Ltd.	352.00						
Huntstown 2 – scheduled to go live in October 07)	420.00						
Tynagh Energy	404.00						
Synergen	415.00						
ESB International (Coolkeeragh)	460.00						
AES Ltd. (Kilroot)	580.00						
Premier Power (Ballylumford)	1060.00						
ESB PG	4402.50						

⁸ The generators included in this listing are those with an MEC \geq 10MW that must participate in the market or may have Intermediaries acting on their behalf that will carry out the Go Live requirements.

⁹ Booltiagh and Clonkeen Windfarms

¹⁰ Carnsore, Derrybrien and Crockahenny Windfarms

¹¹ Kings Mountain, Meentycat, Gartnaneane I, Richfield, Tappaghan and Arklow Banks Windfarms

Participant Supplier	Self-certified SEM Readiness	Participated in Market Trials	Credit Cover Posted	Acceded to T&SC	Registration Data complete
Airtricity					
Bord Gáis Energy Supply					
CHP Supply Ltd.					
Dan Twomey Waterpower Engineering					
Energia					
ESB PES					
NIE PES					

Appendix G Transition Calendar of Events

Transition Activity	Date
SEM Legislation enacted	15 th June 2007
SEM Go Active Date Confirmed by the Regulatory Authorities / Sec. of State, NI	15 th June 2007
SEM Go Active / Signing Day	3 rd July 2007
Framework Agreement Signed	28 th August 2007
Accession Documents Signed	25 th September 2007
Go Live Recommendation submitted to SEM Committee / Sec. of State, NI	11 th October 2007
SEM Go Live Decision Confirmed	18 th October 2007
SEM Go Live	1 st November 2007