

SINGLE WHOLESale ELECTRICITY MARKET TRADING ARRANGEMENTS FOR NORTHERN IRELAND AND THE REPUBLIC OF IRELAND

REGULATORY IMPACT ASSESSMENT (FINAL)

1. TITLE OF PROPOSAL

1.1 The Electricity (Single Wholesale Market) (Northern Ireland) Order 2007

2. PURPOSE AND INTENDED EFFECT OF MEASURE

2.1 Objective: The establishment of a Single Wholesale Electricity Market for Northern Ireland (NI) and Republic of Ireland (RoI) (commonly known as the Single Electricity Market or SEM) aims to:

- enhance Northern Ireland's and the Republic of Ireland's security and diversity of supply;
- provide greater competition and investment opportunities from a stable market with transparent and equitable trading arrangements;
- encourage market efficiencies and economies of scale.

2.2 In order to implement the SEM, primary legislation will be needed in both Northern Ireland and the Republic of Ireland. There are two main reasons why this is necessary. Firstly, similar to the introduction of the British Electricity Trading and Transmission Arrangements (BETTA) arrangements in GB legislation will be required to direct changes to electricity licences and contractual

arrangements in order to ensure the implementation of the SEM. Secondly, legislation is necessary to reflect the all-island nature of the wholesale market arrangements, for example, to provide the two regulatory authorities with powers to jointly make decisions in relation to cross-jurisdictional issues, relating to the new market.

Background

2.3 Creation of the SEM flows from work underway since 1999 to enhance energy cooperation between Northern Ireland and Ireland. The Irish and UK Governments have committed to the furthering of regional integration between Northern Ireland and the Republic of Ireland set within the context of the drive to create an EU wide internal market for electricity and have signed an All-island Development Framework (November 2004). This sets out plans for the integration of gas and electricity markets. The Department and its Republic of Ireland counterpart, the Department of Communications, Marine and Natural Resources (DCMNR), are working with the two Regulatory Authorities (Northern Ireland Authority for Energy Regulation (NIAER) and Commission for Energy Regulation (CER)) on the development of the all-island energy market and in particular the SEM. The All-island Energy Market is defined in the Framework document as follows:

2.4 *"An All island Energy Market should provide for competitive, sustainable and reliable markets in electricity and natural gas on the island of Ireland at the minimum cost*

necessary. It should operate in the context of the EU internal energy market and should deliver long term economic and social benefits that are mutually advantageous to Northern Ireland and the Republic of Ireland. Customers, irrespective of where they live, should be free to source their energy needs from suppliers and service providers anywhere on the island and generators be able to participate freely regardless of the jurisdiction”¹

2.5 Within this overall objective, the SEM will provide for a common set of trading arrangements that will apply to both Northern Ireland and Ireland. These will be set out in licensing and contractual arrangements with market participants. Day to day trading will be managed by a Market Operator to be established initially by the two Transmission System Operators (SONI and ESB NG) as a contractual joint venture. The two Regulatory Authorities will be responsible for the development and governance of the SEM.

2.6 The development of the SEM has been led by the Regulatory Authorities but it will require action by both Governments to provide parallel legislation in Northern Ireland and the Republic of Ireland.

CURRENT MARKET ARRANGEMENTS NORTH AND SOUTH

Northern Ireland

2.7 The Northern Ireland wholesale electricity market is relatively small at approximately one third the size of the

Republic of Ireland. Prior to privatisation, Northern Ireland Electricity (NIE) operated as a vertically integrated utility. NIE was then split into four generation entities and a transmission, distribution and supply entity and sold to private entities in 1992-93. Initially, all the electricity generation capacity was contracted to the NIE Power Procurement Business (PPB) as a single buyer; with limited exceptions. PPB had a right to buy all of the electricity produced by the generation entities. This right was embodied in long-term Power Purchase Agreements (PPAs). There are currently three generating stations in Northern Ireland of which two – the gas fired Ballylumford station and the coal fired Kilroot station – have long term PPAs with the PPB.

2.8 Interim arrangements put in place in 1999 and based on bilateral contracts allowed suppliers to purchase electricity from parties other than the PPB. This demand continues to be facilitated by the recently commissioned Coolkeeragh ESB facility and through the Moyle interconnector. The exact manner in which the PPB will operate within the SEM is yet to be finalised. However, it is clear that the PPB must be competitively neutral.

Republic of Ireland

2.9 The current wholesale electricity market in Ireland is also based on a bilateral trading model with prices set under the terms of the bilateral contracts between suppliers and generators. The buying and selling of power between ESB PG, ESB Customer Supply and Public

¹ DETI and DCMNR, All island Energy Market Development Framework, November 2004 pg 4- available @www.energy@detini.gov.uk

Electricity Supply (ESB PES) is regulated via a Bulk Power Agreement. ESB PG is the largest incumbent generator. It currently has a portfolio of fifteen plants with a varied fuel mix. (coal, peat, hydro and gas).

Interconnection

2.10 Currently, there is one main 275kV electricity interconnector between Northern Ireland and the Republic of Ireland. There are two additional 110kV interconnectors in the west of the island which were upgraded to full system interconnectors, each with a capacity of 120MW during 2001. These were introduced as standby links, primarily to allow the system operators to provide mutual assistance in an emergency. They were not built for cross-border trading.

Net transfer capacity of the main interconnector is limited – mainly as a result of transmission constraints in the RoI – to 300MW, which is the maximum power that can be transferred between the two systems in connection with trades by market participants.

2.11 Plans are underway to build a new North-South interconnector which will more than double trading capacity and further reinforce the electricity infrastructure. The project is expected to cost £120m and be completed by 2012.

2.12 There is currently only one East-West interconnector which runs from Scotland to Northern Ireland. The Republic is planning to build its first east-west interconnector between Dublin and Wales by 2012. This will further improve security of supply and trading opportunities.

Intended Effect

2.13 Competition is a key element of the primary objective of the Government's strategic energy framework which is

“to achieve a competitive, sustainable, reliable energy market at the minimum cost necessary in an all-island, UK and European context.”².

2.14 The principal objective of the Department and NIAER is to protect the interests of consumers, wherever appropriate by promoting effective competition. Competition promotes efficiency and creates choice and value for customers. It ensures that existing resources are used effectively and that decisions on new investment are based on appropriate economic signals.

2.15 The SEM is expected to improve competition and investment opportunities by replacing the Northern Ireland market which has a retail base of 0.7 million customers and the Republic of Ireland market which has a retail base of

² Energy – A Strategic Framework for Northern Ireland, 2004.-available @ www.energy@detini.gov.uk

1.8 million customers by a single all-island market of 2.5 million customers. While this is still a small electricity market in the EU context, it is a considerably larger market than both North and South markets operating independently, and should provide a much improved base for the entry of new market participants, both generators and suppliers. It is anticipated that this enhanced market dynamic should serve to increase the competitive pressure on prices while providing greater economies of scale for market participants in areas such as generation reserves, plant mix and fuel usage.

Risk Assessment

2.16 The key risk addressed by the SEM is the risk to consumers of higher prices and lower standards of services associated with a lack of effective competition. This risk is discussed in the main assessment of costs and benefits outlined below.

2.17 This regulatory measure is not designed to address direct risks to consumer or worker safety or health, or the environment.

2.18 The process of consultation on design, licensing and documentation to deliver the SEM is ongoing between the Regulatory Authorities and industry. Market details will therefore continue to be developed and refined in a series of consultations in the lead up to and

beyond the “go live” date of 1 November 2007. This will include any associated risks or problems. Consequently, the estimates of costs and benefits of the chosen option set out below are generic in form, where necessary, and are designed to be robust only to the extent that the final implementation details are known.

3. OPTIONS

3.1 The need to replace the current wholesale trading arrangements in the Republic of Ireland and progress an all-island energy market policy priority presented the Regulatory Authorities with the chance to maximise the opportunities presented by a larger single market. Two potential options that would meet the Department’s and NIAER’s obligation to protect the interests of consumers were considered, which are set out below.

3.2 **Option 1:** maintain the status quo (the ‘do nothing’ option);

Option 2: move to a single all-island wholesale trading arrangement now.

Option 1: the ‘do nothing’ option, was discarded as unfeasible because of the need for the Northern Ireland market to respond to any new market arrangements in the Republic of Ireland, its impact on existing cross border trading agreements, and the difficulties of establishing a separate competitive market within Northern Ireland alone given its small size.

Option 2: a single all-island market was therefore chosen as providing the most effective way of continuing to deliver an efficient level of sustainable prices to all customers from a supply that is reliable and reasonably secure, while also maximising the competitive and other economic opportunities afforded by the new arrangements. If the choice had not been made, NIAER would still have been faced with updating the trading arrangements and forming a closer working relationship with CER on all-island electricity issues in due course. This was due to the all-island energy policy agenda, growing action to integrate European markets, and a future requirement to modernise the Northern Ireland wholesale trading system.

- 3.3 The decision to choose Option 2 led to consideration of a further two consequential options, namely:

Option 2a: to plan for a SEM that would be regulated under existing statutory duties aided by memoranda of understanding and managed on the basis of revised licensing and contractual and other industry arrangements and documentation; or

Option 2b: to plan for a SEM with revised trading arrangements that would be underpinned by common legislative powers and duties in Northern Ireland and Ireland.

- 3.4 It was agreed in both jurisdictions following consideration with each Government's and the Regulatory

Authorities' legal advisers that the legislative Option 2b would be required in both jurisdictions. As with the introduction of BETTA in GB, the conclusion was that the first option's contractual and consensual approach would not provide the necessary legal surety and commercial confidence that the SEM arrangements could be introduced and operated successfully.

4. COSTS AND BENEFITS SUMMARY

- 4.1 The costs and benefits that are expected from the establishment of the SEM have been subjected to an independent analysis by NERA Economic Consulting on behalf of the two Regulatory Authorities and overseen by the All-island Energy Market Joint Steering Group. Costs and benefits were estimated based on a comparison between the selected option (Option 2b) and a 'business as usual' (BAU) scenario, which was effectively the 'do nothing' Option 1.

- 4.2 Estimating the costs and benefits of a very complex and unique project such as the SEM a year before it is due to "go-live" and while arrangements are still under development is of necessity uncertain. Efforts have been made to make an assessment that is both conservative and as realistic as possible. The assessment is therefore based on a ten year lifespan which is thought reasonable for a new market design, as well as projecting the costs and benefits

over a possible twenty year lifespan as a sensitivity. The results quoted below relate to the final report as at 2 November 2006, available at: www.detini.gov.uk. Consequently, the results may be subject to some final revision as costings are firmed up but the overall outcome is not expected to change significantly from that presented below.

4.3 Northern Ireland and the Republic of Ireland's involvement in the SEM has been predicated on the provision of a secure and stable electricity supply in association with the development of a competitive market which will deliver mutual benefits to customers, North and South.

4.4 The analysis of the distribution of costs and benefits has two dimensions:

- *Geographical*: which looks at how the costs and benefits are divided between Northern Ireland and the Republic of Ireland; and
- *Vertical*: which looks at where costs and benefits are allocated within the supply chain, between market participants and consumers.

4.5 In practical terms, the costs and benefits fall into two broad categories:

- The costs and benefits of implementing and operating the new market systems

compared to the costs of maintaining current systems; and

- The costs and benefits of the impacts of the SEM on outcomes in Northern Ireland and the Republic of Ireland which result from changes in economic dispatch on the island, and investment decisions i.e. savings in system costs which arise from greater operating efficiency which result in turn from implementation of the SEM.

4.6 The costs and benefits of the first category (non-market impacts) were calculated using a 'bottom-up' approach using data provided by the Transmission System Operators (TSO), Regulatory Authorities and market participants, as well as international benchmarks. The second category (market impacts) used a variety of modeling evidence which compares projected outcomes in the Business as Usual (BAU) scenario with the SEM scenario.

4.7 The analysis is based on a range of assumptions such as lifespan of the market, discount rate and constant 2006 prices.

4.8 BENEFITS

4.8.1 On the benefits side, the NERA analysis examined the wider system benefits or static benefits which arise from SEM due to improved operating efficiency from implementation of a single wider all island market compared to two separate markets.

4.8.2 The cost benefit analysis takes into account the cost of necessary future changes to the Northern Ireland market that would be needed if the SEM did not happen. Failure to meet the November 2007 implementation date would reduce these savings by each year's delay.

4.8.3 The benefits of SEM implementation comprise:

- **Fuel, CO2 and import cost savings (i.e., variable cost savings):** the savings that derive from more efficient dispatch under the SEM, which have two sources. The first source is better use of the north-south interconnector under the SEM, as a result of centralised scheduling and control of the all-island systems. The second source is improved availability of the plant of ESB Power Generation (ESB PG), as a result of stronger availability incentives under the SEM.
- **Security of supply benefits (installed reserve savings):** the savings that derive from more efficient generation investment decisions under the SEM, which also have two sources. The first source is the adoption of a joint system adequacy standard covering both Northern Ireland and Republic of Ireland, and by implication greater sharing of installed reserves across the island, which will save 400MW of capacity worth some £20m per year. The second source is improved availability of ESB PG plant, which delays the need for new generation investment compared to BAU.

- **Avoided costs of redundant Market**

Operator (MO) systems: the savings from the early retirement of existing MO systems, which leads to reductions in operating costs as well as the avoidance of future capital expenditure that would have been needed for routine upgrades to the existing systems.

- **Avoided transmission investment costs:**

the savings from more efficient transmission investment decisions under the SEM, as a result of the creation of a locational transmission charging system in Northern Ireland, modelled on the one that currently exists in the Republic of Ireland.

Efficiency savings from SEM implementation are summarised in Table 1 below.

Table 1: The benefits of SEM implementation

	NPV cost £ M 2006 prices
Variable cost savings	214.1
Installed reserve savings	160.7
Avoided costs of redundant MO systems	30.2
Avoided transmission investment costs	6.3
Total	411.3 (over 10 years)

4.9 Qualitative/ Dynamic benefits:

4.9.1 In addition to the benefits outlined above the SEM is also expected to bring further qualitative and strategic (dynamic) benefits with overall wider long term benefits from participation in SEM amounting to close to £29 to £34 million per annum on all island benefits. If the cost of the second North/South Interconnector is taken into account the net benefit is £16 m per annum on an all island basis. These benefits are expected to come from the following areas.

4.9.2 Benefits from improved competition

Increased competition between generators that should arise in SEM and may be expected to lower prices in the wholesale pool. This is estimated to be worth around £20 million to £25 million per annum (all island).

4.9.3 Greater retail supply competition may arise if independent suppliers enter the larger SEM (wholesale) market, and is estimated to be worth, all-island, another £5 million per annum.

4.9.4 Improved competition under the SEM, as outlined above is expected as a result of:

- the wider scope of the market and better scope for North-South trading;
- better imbalance pricing, which is especially important for smaller companies;
- the ability for the SEM to develop greater levels of demand-side response; and
- better and more transparent pricing rules.

4.9.5 Market power benefits

All other things being the same, the existence of a gross pool with a single System Marginal Price (SMP) should reduce opportunities for the exertion of market power, as compared to the current trading arrangements. Notwithstanding this, the market is currently highly concentrated, and market power is of considerable concern regardless of the design

of the trading arrangements. The practical implication of the SEM is that less intrusive market power mitigation mechanisms are expected to be required in order to assist the introduction of a competitive market (see section 6 below).

4.9.6 Economies of Scale Benefits

Economies of scale associated with entry of larger generating sets to meet new demand in the SEM may be worth another £4 million per annum. To realise these, benefits need to be set against the estimated annual cost of constructing the second interconnector equal to around £14 million per annum on an all island basis.

4.9.7 Assuming the costs of the second interconnector are shared in proportion to the size of the market, net longer term benefits could reduce Northern Ireland electricity bills by a further 0.5% to 0.7% on average.

4.9.8 Other operational benefits

Other expected benefits resulting from greater coordination of System Operator for Northern Ireland (SONI) and Eirgrid functions (or even integration of some functions) include:

- better generator maintenance scheduling (and potentially transmission);
- reduced failure propagation;
- fewer voltage and frequency problems; and
- potentially reduced requirements for automatic generation control (frequency control).

4.9.9 Loop flow benefits

Internationally, loop flow benefits are a major reason for market consolidation because fragmented markets experiencing loop flow can be forced to operate their transmission systems very conservatively, thus incurring additional generation costs. The island of Ireland is not expected to have this type of loop flow issue until either the second North-South interconnector is built, or a second interconnector to Wales/ Scotland or England is built. At such a time however, the SEM will present advantages over BAU because the SEM involves integrated management of the island-wide transmission system.

4.9.10 Environmental benefits

Improved environmental outcomes should go hand-in-hand with improved competition. To the extent the SEM improves competition on an all island basis and drives increased fuel-efficiency in particular, the SEM will improve environmental outcomes. The SEM will also provide a clearer price signal to would-be new entrants of the value of non-polluting technologies, and should promote wind generators in particular through a fair method of imbalance pricing.

4.10 Distributional analysis

The distributional analysis undertaken by NERA indicates that net benefits of the SEM are likely to be shared between consumers and producers on an 80:20 basis. The net benefits to producers are estimated to be approximately 2: 1 in Republic of Ireland's favour and the net benefits to consumers are likely to be shared approximately equally. They are set out as follows:

	Producers NPV £m	Consumers NPV £m	Total NPV £m
Republic of Ireland	13.2	40.3	53.6
Northern Ireland	7.1	39.2	46.3
All-island	20.3	79.5	99.9

Table 2: Distribution of SEM Net Benefit

4.11 COSTS

4.11.1 On the cost side, the analysis quantified the up front costs of implementation (eg capital costs of MO implementation; market participant and TSO readiness expenditure; regulatory design costs) as well as the projected year-on-year running costs (MO annual operating cost; market participant credit costs; and regulatory administrative costs). Total implementation costs of SEM were estimated at around £135 million NPV.

4.11.2 The costs of SEM implementation (start up/capital and running) costs are summarized in table 3 below and comprise of:

- Market operator (MO) implementation costs: the costs of creating the new MO, which will be a joint venture between the TSOs, and equipping it with the new systems it needs to operate the SEM;
- Market participant costs: the costs of installing the new systems needed by generators to interface with the SEM

market systems, together with the costs to suppliers of providing credit cover to the MO for energy received on account;

- TSO implementation costs: the costs of changing TSO systems and procedures and contracts with grid users to accommodate the SEM, including additional metering costs, together with the legal and other advisory costs of divesting System Operator Northern Ireland (SONI) from Northern Ireland Electricity (NIE); and
- Regulatory design and administration costs: the costs of consultancy and other advice to the RAs to design the SEM, and the ongoing costs of the RAs' SEM Committee and of market monitoring to help control market power.

	NPV cost - £ M, 2006 prices
MO implementation costs	201.7
Market participant costs	22.6
TSO implementation costs	13.5
Regulatory design and administration costs	18.7
Total	256.5

Table 3: The Costs of SEM Implementation

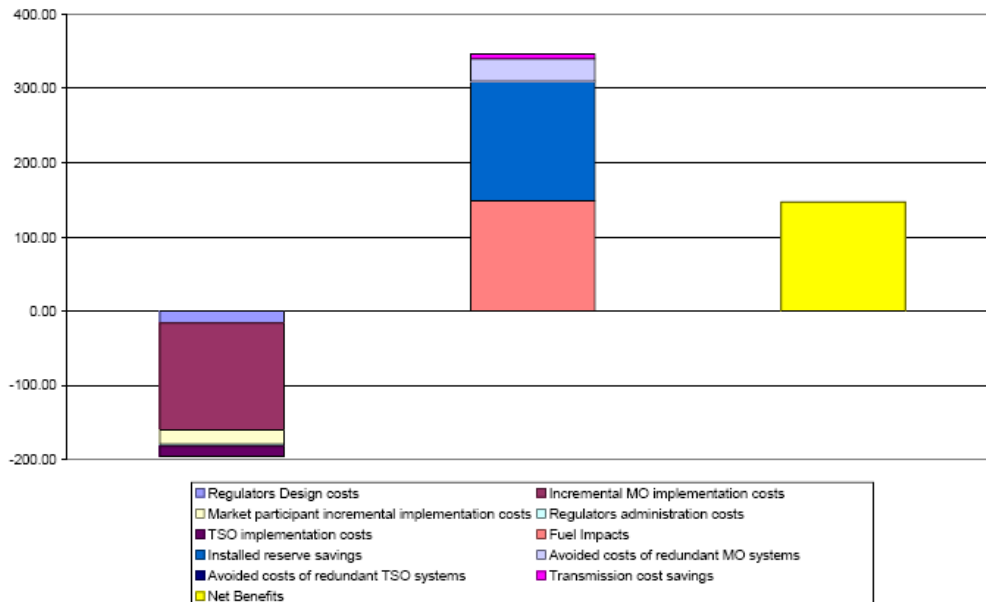
4.11.3 Cost Benefit Analysis net position

Overall, when setting start up/running costs (£135 million) against efficiency savings (£235 million) results in social net benefits of the SEM of approximately £100M in NPV

terms, assuming a lifetime of 10 years for the new market. As a sensitivity, the social net benefits have also been calculated assuming that the new market remains in place for 20 years, and that costs and benefits remain constant in years 11 to 20 at the level seen in year 10. In this scenario, the social net benefits would rise to £291 million in NPV terms, although it is likely that some of the additional benefits of a longer life would be off-set by the need to replace or upgrade the existing IT and other systems that support the SEM.

4.11.4 A breakdown of implementation costs and system benefits is presented in Figure 1 below.

**Figure 1
Social Net Benefits of the SEM, NPV €Mn**



4.11.5 Most of the costs of implementation of the SEM will be shared geographically between Northern Ireland and the Republic of Ireland on the basis of cost sharing rules agreed with the framework of the AIP. For example, (MO) implementation costs are being shared one quarter to three quarters between SONI and ESB NG, and regulatory design and administration costs are being shared one third to two thirds between NIAER and CER. The analysis used these rules to allocate these costs (and the market benefits- see also next section on market impacts) between the two regions. The main exception is market participant implementation costs, which have been allocated between Northern Ireland and the Republic of Ireland in proportion to installed capacity or electricity demand, depending on the nature of the costs.

4.12 Market Impacts in Northern Ireland

NERA analysed the impact of moving to the SEM upon profits of generators in Northern Ireland and Republic of Ireland and also the impact which the efficiency savings identified as arising from SEM would have on prices to electricity customers. This was based on the assumption that from 2008 onwards the wholesale market price in the SEM and BAU would immediately reflect the competitive price of a new entrant (i.e. a CCGT).

4.12.1 In other words the net benefit of £100 million was converted into an impact on profits and electricity prices.

4.12.2 The market impact for Northern Ireland is outlined in the Table 4 below.

	Impact on Market Participant Profits NPV £ M	Impact on End-User Prices NPV £ /MWh
Northern Ireland	+6.01	-0.45

Table 4: Distribution of Impact of SEM (total profit impact for producers over whole period and average annual price impact for customers)

4.12.3 In summary, on the assumption of a move immediately to competitive price setting in the pool, SEM should result in a saving of on average around 0.6% off customer's electricity bills in Northern Ireland resulting from greater operating efficiency.

4.12.4 In addition there are a potential extra £29 million to £34 million per annum of dynamic longer term benefits as outlined in the section 4.9 above. Taking the efficiency savings/system benefits and long term dynamic benefits together, set against the SEM start up and running cost (including those of the new North South Interconnector), it is estimated overall that the impact of implementation of the SEM is worth around 1% reduction in Northern Ireland electricity bills.

4.13 Immediate Price Impact

4.13.1 The NERA analysis did not analyse the immediate price impact of moving to SEM. The above analysis assumes that prices move quickly to a level set by competitive new entry and the benefits to customers will depend significantly on the Best New Entrant pricing assumption.

4.13.2 However in the first three to five years the SEM price set in the pool may be influenced by older less fuel efficient plant (which is expected to be replaced from 2011 onwards).

4.13.3 To ensure that the immediate adjustment period to competitive pricing does not involve any upward pressure on prices, the Regulatory Authorities undertook an internal analysis. This indicated that on current fuel price projections the move to the SEM should not change significantly prices in Northern Ireland or Republic of Ireland for the first two years from what would have existed under current arrangements. As a result of new entry of new generating plant and the efficiencies and competitive opportunities identified in the above analysis SEM should then exert a downward pressure on prices in the medium to longer term.

4.13.4 For example, on current fuel price projections, it was estimated that Northern Ireland electricity prices remain stable on entry into SEM (varying between up to plus or minus 0.9%) over 2008 and 2009, compared to an estimate of the "BAU" price.

4.14 Conclusion

In conclusion, the SEM should not have a significant impact on prices immediately. After 2010/11 as new entry of generating plant replaces older plant, the price should begin to converge on the competitive levels, and the benefits identified above from the efficiency savings from SEM (identified at the market impacts section above) should filter through to customers.

5. OTHER IMPACT ASSESSMENTS

5.1 The Department has completed the integrated impact assessments tool and concluded that the introduction of the SEM will have no differential impact on any of the Section 75 groups, victims, health, social inclusion, or persons living in rural areas.

5.2 The Department believes that the provisions of the Order are compatible with the Convention on Human Rights

Environmental Impact

5.3 The SEM is not a measure whose primary purpose is to promote benefits to the environment. However, by promoting effective competition and hence the efficient use of all resources, the SEM should have a generally, if mildly, positive environmental impact. For example older, less fuel efficient plants will be replaced by cleaner, more efficient CCGT technology. Further it is anticipated that the SEM will encourage more efficient use of renewable technologies, thus leading to a decrease in CO2 emissions.

6. COMPETITION ASSESSMENT

6.1 The SEM is expected to improve competition and investment opportunities for generation and transmission companies by providing common and transparent trading arrangements which will feed electricity into an all-island market of 2.5m customers (Northern Ireland market has about 0.7m customers). This is consistent with action by the European Commission to encourage open and transparent competition within larger regional markets as part of the development of the EU-wide Internal Electricity Market.

6.2 The promotion of effective and sustainable competition is one of the key ways that the Department and NIAER can pursue their statutory duty to protect consumers. Maximising effective competitive opportunities through the all-island SEM, allied to a lighter regulatory touch, is more likely to protect consumer interests, rather than maintaining current administratively heavy market arrangements.

6.3 The SEM will create a single wholesale market with common rules and charging arrangements for connection to the transmission systems. This will reduce any differences between the Northern Ireland and the Republic of Ireland markets and transmission systems that may currently affect open cross border trade and competition.

6.4 It is anticipated that access to the larger, open all-island marketplace should, in turn, promote new entry in generation to replace existing older plant and to meet new demand, and also should promote increased competition in the competitive retail electricity market. This is because expanding and liberalising the wholesale market should result in there being additional market participants competing to buy and sell wholesale energy and seeking to hedge their positions in the retail sector. Expanding the wholesale market should also increase choices for suppliers of retail customers, which again should promote new market entry in the retail supply sector. In addition, the gross pool design should afford greatest ease of access for new entrant suppliers, including renewable electricity suppliers.

6.5 By expanding the market and introducing enhanced competition the SEM should aid greater reliability and security of supply as well as greater diversity of fuel supply. Other areas include the prospects for further East-West interconnection and enhanced trading with BETTA, as well as trading opportunities for increasing levels of renewable energy generation and associated growth in local technology development and innovation.

6.6 Issues that still need to be resolved involve the impact of national policies and practices in areas such as carbon emissions trading schemes and renewable support mechanisms, where differentials have the potential to distort all-island trading and could give competitive advantage to players

operating in either jurisdiction to a greater or lesser degree.

Dominance and market power

6.7 The SEM as designed can be a success and lead to more secure supplies at lower prices in both Northern Ireland and the Republic of Ireland. The best estimate suggests Northern Ireland price reductions around 1% compared to business as usual (see market impacts section above)

6.8 However, success depends on effective competition. Without visibly fair markets, new entrants may not make the investments needed to secure supplies, and so continuing market dominance may create continuing security of supply problems. In addition, the SEM combined with dominance may expose Northern Ireland consumers to anti-competitive bidding and prices over competitive levels.

6.9 The benefits of a competitive market structure cannot be won solely through regulation. A structural solution may be necessary: under the existing market structures in Northern Ireland and the Republic of Ireland the dominant operators are Viridian and ESB Groups would control some 21% and 55% of generating capacity in the SEM.

6.10 In order to ensure transparent and open competition, the SEM is being designed to handle issues of dominance and market power through a regulatory solution over the short to medium term. The Regulatory Authorities will be required to regulate any incumbent licensee that has market power which warrants regulation of their contracting or bidding behaviour. It is noted, however, that such regulation would be needed under any foreseeable

arrangements and that the introduction of a larger, more competitive wholesale market will serve to lessen the effect of dominance and market power, albeit not initially to such an extent that it would be appropriate to discontinue regulatory oversight of such matters.

6.11 Further work is being done to address this issue as part of the finalisation of the market arrangements, including decisions arising from the current consultation on the Irish Government's Energy Green Paper. The Paper acknowledges that one of the major factors identified as a barrier to entry is the perceived and actual dominance of ESB, arising from ESB's ownership of a large and diverse portfolio of plant, particularly price setting generation plant. The Paper recognises that the SEM will not of itself address the issue of dominance, particularly in relation to price setting generation plant.

6.12 Both jurisdictions must act to promote competition and must take appropriate action to ensure that the principal operators – ESB and Viridian – do not retain an overly dominant position in the market. In pursuing security of supply through new generation, the opportunities for new entrants must be maximised including early access to the proposed landbank. Emerging tariff and regulatory regimes under the SEM must also support competition and the prospects for new entrants in the retail market. In Northern Ireland SONI divestment from Viridian will reflect the restructuring of Eirgrid and its separation from ESB.

7. SMALL BUSINESS IMPACT TEST

7.1 Small businesses operating in the electricity sector will be affected by the SEM. In broad terms, it is anticipated that

enlarging the wholesale market will improve the prospects for smaller companies to participate in the new market, facilitating those engaged in generation and trading of renewable electricity and combined heat and power installations.

7.2 More generally, it is expected that the vast majority of small businesses in Northern Ireland will be affected only to the extent that the new market leads to changes in the prices they pay for electricity. It is not possible to predict the precise impact that the SEM will ultimately have on retail prices for customers. However, on current fuel price assumptions, prices are not expected to be affected by the SEM in the next two years. In the medium to longer term (post 2010) a combination of the entry of new generating plant and the efficiencies and competitive opportunities identified in the above analysis is expected to exert a downward pressure on prices. Small businesses should also benefit from enhanced reliability and security of supply from the larger market and associated improvements to the transmission and grid infrastructure.

8. BUSINESS SECTORS AFFECTED

8.1 The business areas directly affected by the SEM and its legislation are mainly limited to those energy sector companies engaging in wholesale electricity generation and supply. There are currently seven active generation licences and six active supply licences in Northern Ireland. Four other companies hold licences but are not using them. In addition, the SEM will facilitate the

growing involvement of renewable electricity generating companies.

9. ENFORCEMENTS AND SANCTIONS

9.1 The SEM will be implemented in practical terms through changes to licences and contracts and other industry documentation by which market participants must abide. Day-to-day trading will be managed by a Market Operator working to rules agreed by the Regulatory Authorities. They will work together to ensure that enforcement and sanctions can be imposed on the basis of consistency and fairness, in keeping with national and EU competition laws.

10. MONITORING AND REVIEW

10.1 The Department and NIAER will put in place monitoring procedures consistent with their statutory responsibilities to ensure that the SEM is implemented and operates in accordance with the enabling legislation.

10.2 The Regulatory Authorities and the SEM Committee will review the implementation of the Single Electricity Market in due course.

11. GUIDANCE

11.1 The legislative measures and associated trading arrangements needed to establish the SEM will require compliance by a small number of licensed electricity companies. The necessary guidance is being prepared by the Regulatory Authorities in consultation with market participants as part of the development process. The aim is

to ensure that compliance requirements are both understood and acted upon.

12 CONSULTATION

12.1 Consultation and engagement with all stakeholders has been a key aspect of the SEM project to date and will continue to be so to ensure that the principles and planned procedures meet with the overall needs of the electricity industry.

12.2 The Regulatory Authorities have already undertaken extensive and ongoing consultations within the electricity sectors, North and South on details of the SEM proposals. The consultation process has helped to refine the overall policy development.

12.3 The All-island Energy Market Development Framework (2004) was itself subject to its own consultation process. It received the broad support of the energy sectors in Northern Ireland and the Republic of Ireland, including key industrial stakeholders and the CBI NI and IBEC- CBI Joint Business Council.

13 SUMMARY AND RECOMMENDATION

13.1 The planned legislation on the SEM will make a significant contribution to the delivery of government energy policy. It will provide for the legal establishment and governance of the SEM, which will deliver a range of economic and strategic benefits.

13.2 The benefits over the ten year appraisal period total £234m NPV with a net social benefit of £100m NPV over 10 years (costs - £134m, benefits - £234m). Benefits

would be split roughly Northern Ireland - 46%, Republic of Ireland - 54% with benefits accruing to customers - 80%, generators - 20%. This would be equivalent to around 0.3% off customers' electricity bills on an all island basis with a slightly higher reduction for Northern Ireland (0.6%) and slightly lower for Republic of Ireland (0.2%) over the longer term.

13.3 There are also a number of key qualitative strategic benefits. These dynamic benefits include:

- more efficient generation dispatch, leading to lower cost of generation;
- a larger single wholesale market, facilitating greater economies of scale and scope;
- energy prices set competitively;
- predictable and stable trading system;
- increased attractiveness for generation investment and supplier entry;
- increased security of supply;
- integrated system planning leading to more robust infrastructure on the island; and
- shared costs of maintaining fuel diversity through increased competition,

13.4 Overall, wider long term benefits from participation in the SEM amounting to close to £29 to £34 million per annum on all island benefits.

13.5 Adding together longer term dynamic benefits with the benefits arising from

operating the system more efficiently and the impact of the implementation of the SEM is estimated to be worth around 1% off Northern Ireland electricity bills.

13.6 A key benefit of the SEM will be its promotion of greater competition and investment and development of the energy infrastructure. This will, in turn, have a beneficial impact on the wider commercial and domestic sectors in Northern Ireland due to the downward pressure on prices that will result from market efficiencies. To deliver the benefits of the SEM and effective competition and avoid the danger of perennial dominance structural change may be necessary. This may require a policy lead from both Governments, particularly in relation to market dominance (see section 6.7-6.12 above).

13.7 With regard to wider energy policy, the SEM will contribute to the drive by the EU to develop regional markets as part of the overall development of the EU wide Internal Electricity Market.

14. Declaration

I have read the Regulatory Impact Assessment and I am satisfied that the benefits justify the costs.”

A handwritten signature in black ink that reads "Maria Eagle". The signature is written in a cursive, flowing style.

Signed: MARIA EAGLE MP

Date: 8 February 2007

Marla Eagle MP

**Parliamentary Under Secretary of State,
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