# Consultation on whether SEM constitutes relevant arrangements for the purposes of cancellation conditions in NI electricity licences

Utility Regulator
ELECTRICITY GAS WATER

**6 July 2007**

## Summary

The Northern Ireland Authority for Utility Regulation, (the Utility Regulator) is undertaking this consultation as part of our preparations for making a determination whether the Single Electricity Market (SEM) constitutes the requisite arrangements referred to in conditions in Northern Ireland Electricity Licences relating to the cancellation of generating unit agreements entered into at privatisation of the electricity industry (the cancellation condition)

On 3 July the Utility Regulator and DETI set in place the licensing and legal framework necessary to implement the SEM, in Northern Ireland. Over the next number of months participants will be engaged in market testing and trials, legacy arrangements will be run off. Some further changes to the licencing framework and the obligations imposed on participants may be necessary, which the Regulatory Authorities will make following consultation. However, we consider that SEM will be available for establishment on or about 1 November 2007 and will constitute an electricity trading system by which the power procurement manager and all licence holders will be bound.

We are minded to determine prior to the establishment of SEM ("Go Live") that it constitutes the requisite arrangements referred to in the the Cancellation Condition. The purpose of this consultation is set out the utility Regulator's reasons for believing that, once established. SEM will satisfy the requirements of paragraphs 2 and 3 of the cancellation condition. The Utility Regulator seeks the the views of stakeholders, consumers and other affected persons on our intention to make this determination.

The suite of consultations undertaken (and any further consultations which will undertaken between now and Go-Live in November 2007) both in conjunction with the Commission for Energy Regulation in the Republic of Ireland, and by the

Utility Regulator on its own account, for the purposes of developing SEM have met and continue to meet the procedural requirements of Paragraph 6 of the Cancellation Condition, namely that interested parties have the opportunity to make representations in relation to the relevant steps and the relevant documentation to implement SEM (and thus, the requisite arrangements) at each stage.

The cancellation condition appears in its present form as a result of its being recently modified in pursuance of the Utility Regulator's exercise of its powers under the Electricity (Single Wholesale Market) (Northern Ireland) Order 2007 following consultation to ensure that existing regulatory powers relating to cancellation were translated into the new SEM environment. There are elements of the cancellation condition which are designed to apply in the Transition Period which will not be present nor strictly correct at Go-Live (for example the references to conditions in NIE's current combined licence document). There may be further appropriate changes required to be made to the enduring cancellation condition. These are dependent on whether the Utility Regulator ultimately determinses that SEM constitutes the requisite arrangements following this consultation. The Utility Regulator is of the opinion it may be appropriate at or around go-live to update the condition, by virtue of a further exercise of the SEM powers and with the consent of DETI, to reflect whatever decision is reached.

The Utility Regulator intends and prefers to publish all comments received, but we are prepared (to the extent permissible at law) to facilitate those respondents who wish certain sections of their submission to remain confidential. Accordingly, respondents that so wish should submit these sections in an appendix that is clearly marked "Confidential".

Comments should be forwarded, preferably in electronic form, to tadhg.obriain@niaur.gov.uk or post to;

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The deadline for receipt of comments is 1700h on 28 September 2007

## The Single Electricity Market

The purpose of this consultation is to set out the Utility Regulator's reasons, and to seek the views of interested parties on these reasons, for considering that the Single Electricity Market (SEM) will, once established, constitute requisite arrangements which facilitate an increase in competition in the generation of electricity available for supply in Northern Ireland or the supply of electricity in Northern Ireland for the benefit of consumers of electricity in Northern Ireland in respect of the prices charged and the other terms of supply, the continuity of supply and the quality of the electricity supply services provided in line with the requirements of the conditions in Northern Ireland electricity licences relating to the cancellation of Generator Unit Agreements entered into between NIE and Northern Ireland generators on privatisation.

Creation of the SEM flows from work underway since 1999 to enhance energy cooperation between Northern Ireland and the Republic of Ireland wherever cooperation can bring mutual economic benefits. The policy aims were set out in an All-island Energy Market Development Framework in 2004. Cooperation is firmly set in the context of the creation of liberalised EU-wide Internal Markets for Electricity and Gas, including the development of regional electricity markets.

The aim is to create a single competitive, sustainable and reliable all-island market that covers Northern Ireland and the Republic of Ireland and which will bring a range of operational and wider strategic benefits at the minimum cost necessary. The first step proposed by the development framework was the introduction of a unified electricity market which was considered to require the establishment of a single market for the sale by electricity generators in NI and ROI and PPB to suppliers of electricity ("wholesale electricity") in NI and ROI, and measures to ensure effective and co-ordinated regulation of the market. The Utility Regulator is satisfied that SEM will deliver increased competition between electricity generating companies and meets the requirements of paragraph 2 of the cancellation condition. Our reasons for considering that the specific

requirements of paragraph 3 are satisfied are explained below.

The Utility Regulator considers that it (and where co-consulting, the CER) has conducted the consultations on all aspects of the SEM trading system in such a manner which complies with Paragraph 6 of the Cancellation Condition. Insofar as all consultations relating to SEM on the All Island Project website and NIAUR's website have been published or planned to be published, we believe that taken together, the consultations will show as at November 2007 (or just prior to Go –Live) that each of

(i) the relevant steps

(ii) the relevant documentation, and to the extent relevant,

(iii) the relevant obligations

which we believe are required to be entered into, imposed or assumed in order to satisfy paragraph 3 of the cancellation condition (or in order to create and implement SEM the requisite arrangements), will have been consulted on, to the extent that each person will have had ample opportunity to make representations on whatever aspects of the relevant steps or relevant documentation they so wish. The Utility Regulator, mindful of the need to be proportionate, targeted, consistent, accountable and transparent, has always welcomed, and continues to welcome such representations. We formally extend this opportunity to all parties to submit their representations on the matters referred to in this paragraph.

**Privatisation of NI Electricity Market**

Before privatisation, Northern Ireland Electricity was a public sector entity. It owned and operated the NI generating stations and the Transmission and Distribution networks (T&D), and supplied electricity via those networks to end users throughout Northern Ireland. In 1992, the United Kingdom enacted

legislation to provide for the reorganisation and privatisation of the electricity supply industry in Northern Ireland, and for subsequent regulation of the electricity sector.[2]

The model used to restructure the electricity supply industry in Northern Ireland was different to that used in England and Wales where a Pool was established and in Scotland where vertically integrated utilities were established. The Government proposed that the power stations be sold separately to two or more independent companies and that the remainder of the industry be kept within the control of a single company which would be listed on the London Stock Exchange.

**Reasons for the Establishment of Power Purchase Agreements**

In 1992, the four principal power stations in Northern Ireland (Ballylumford, Kilroot, Coolkeeragh and Belfast West) were offered for sale to trade buyers. Pursuant to the offer for sale, four power stations were transferred to three buyers. At the same time the remaining assets and undertakings of Northern Ireland electricity were transferred to the newly created Northern Ireland Electricity plc.

As a consequence of this reorganisation, NIE's activities comprised the operation of a number of separate businesses one of which was the Power Procurement Business (PPB).

PPB was established to purchase of capacity and energy output from generators to meet consumers' demands for electricity in Northern Ireland. Immediately prior to the industry restructuring NIE concluded, under the Government's direction, GUAs which incorporated long term power purchase agreements

2 the Electricity (Northern Ireland) Order 1992, was made in February 1992 and a new industry structure was introduced on 1 April 1992 with the approval of the

("PPAs") with each of the four major Northern Ireland power stations. The PPAs were designed to provide a commercial basis for the sale of the power stations by providing a secure income stream which allowed purchasers of the power stations to finance their long term operation and to provide PPB with secure sources of capacity and output to meet consumer demand in the long term. PPB was also given responsibility for selling wholesale electricity to suppliers for supply to end users (and continues to do so, albeit now subject to competition in respect of supply to the eligible sector). For this purpose it currently produces the Bulk Supply Tariff (BST), a published tariff approved by the Utility Regulator.

**Cancellation Provisions**

At the time of privatisation and the establishment of the GUAs it was recognised that there remained substantial scope to increase the levels of competition in the generation and supply of electricity in Northern Ireland in the future. Government considered that when it became feasible to implement a competitive wholesale electricity trading system, the power purchase agreements between PPB and the major generators should not be allowed to pose an obstacle to the implementation of such arrangements. The cancellable generating unit agreements therefore provided for their early cancellation in circumstances where each party to the relevant agreement had received a notice from the Director General of Electricity Supply for Northern Ireland (now the Utility Regulator) pursuant to the conditions in its licence directing it to do so.

Under the Cancellation Condition the Utility Regulator can serve upon each of the parties to a cancellable Generating Unit Agreement a notice directing them to terminate that agreement under the relevant provision in the agreement. However, in order to exercise its power to serve a notice directing cancellation the Utility Regulator must first have determined that requisite arrangements (as

described in paragraph 2 of the Cancellation Condition) have been developed and that they satisfy the requirements of paragraph 3 of the Cancellation Condition. Once the Utility Regulator has determined that to be the case, it is entitled (but not obliged) to serve a notice but cannot do so earlier than the earliest cancellation date relating to the relevant cancellable generating unit agreement set out in the relevant licences.

**Requirements for Cancellation Powers to Arise**

Requirements which the new trading arrangements must meet are set out in paragraph 3 of the Cancellation Condition, which can be found at Annex A of this paper, but in summary they require an electricity trading system which satisfies certain requirements:

- calculation and settlement of payments due for:
    - the provision of available generating capacity; and
    - the delivery or supply of electricity;
- adequate arrangements for, and proper remuneration, of System Support Services;
- a technically viable despatch system;
- adequate incentives for generators to provide capacity to satisfy reasonable demands for electricity in Northern Ireland;
- compliance with the provisions of the Northern Ireland Fuel Security Code;
- PPB is recompensed for the purchase of electricity under legacy contracts which have not been cancelled;
- not requiring any generator to breach any obligation under Large

Combustion Plants (Control of Emissions) Regulations (Northern Ireland) 1991 in relation to emissions;

- not worsen the financial position of generators with cancellable generating unit agreement because of the operation of Clause 7.3.2 (which relates to $NO_x$ and $SO_x$) of the power station agreements;
- the costs of Land Bank are appropriately shared between suppliers; and
- not cause licensee's to be unable to finance its licenced activities.

**(N.B. Please refer to Annex A for a full and proper description of the requirements.)**

It is also necessary that generators with GUAs who have applied for supply licences which apply after cancellation have been granted such licences.

Procedural requirements are set out in the licence condition which the Utility regulator must follow before it can make a determination that that these requirements have been met. These stipulate that prior to deciding whether or not to make a determination, the Utility Regulator must consult with the Department, licence holders, PPB, the General Consumer Council and others likely to be materially affected by the establishment and implementation of trading arrangements satisfying the requirements that allow the Utility regulator to assume the powers to direct cancellation[3].

The Utility Regulator made minor modifications to the cancellation condition after consultation as part of the general suite of modifications being undertaken to launch the stage of development known as "Go-Active". This consisted of recognising that the SEM was an all-Island market and that the TSC had been established with its own governance and modification procedures. The Utility

[3] This is in paragraph 6 of the licence condition

Regulator is undertaking the assessment as to whether the SEM meets the requirements of Paragraph 3(A) of the Cancellation Condition as modified. However, prior to the SEM actually being implemented ("Go-Live") it will be necessary to further modify the licences to reflect the determination or otherwise. This is because the current drafting is intended to reflect the position applying during the transition period between "Go-Active" and "Go-Live". The precise form of required modifications are dependant on the outcome of this consultation and the subsequent decision of NIAUR as to whether the requirements have been met and that SEM constitutes the requisite arrangements.

## Establishment of the SEM

The Commission for Energy Regulation (CER) and the Utility Regulator together established the All-Island Project (AIP) in 2004 to implement the joint policy decision by the Minister for Enterprise, Trade and Investment in Northern Ireland and the Minister for Communications, Marine and Natural Resources in the Republic of Ireland to create an all-island energy market, with the SEM as the first phase of this project. A Project Office was established which serves as the control centre for all SEM-related activities and manages the coordination and dissemination of project plans (including consultations and decision), meeting schedules, and project information[4]. The AIP website (www.allislandproject.org) serves as a centre for the publication of all documentation, and any of the consultations or decisions referenced below can be found on it.

Consultations carried out by AIP and communicated through Project Office gave interested parties the opportunity to make representations in relation to the development of the SEM and obligations which would fall on market participants as a result. The Regulatory Authrities published their conclusions (and reasons for those conclusion) on the issues which they consulted upon.

Following consultation (AIP/SEM/06/05), on 10 June 2005 the Regulatory Authorities (RAs) issued a High Level Design Paper Decision Paper on the SEM (AIP/SEM/42/05). This set out the decision to implement a gross mandatory pool (i.e. all electricity must be sold through a central pool with no opportunities for bi-lateral physical power transactions), with central commitment. The decision on the high level design was taken based on six criteria:

- Security of Supply,
- Stability,

[4] Documents published by project office each have a reference number which will be used in this consultation. All documents can be found on the AIP website or by writing to the Utility Regulator.

- Efficiency,
- Practicality,
- Equity,
- Competitiveness.

The High Level Design Decision Paper also provided for an explicit capacity payment mechanism. This decision was reached because an explicit capacity payment mechanism would offer greater security to the market and thereby consumers.

The principles outlined in July 2005 were incorporated in the Trading and Settlement Code (TSC). In December 2005, the RAs published a draft version (Version 0.10) of the proposed All-Island TSC for the SEM. Following industry discussion, Version 1.0 of the TSC was published, and consulted on in February 2006. Since these first consultations a further 4 versions of the TSC have been consulted on (1.1, 1.2, 1.3 and 2.0) with version 2.0 constituting the version designated as the Trading and Settlement for the operation of the SEM. In addition to the TSC (including appendices) the SEM will also be governed by Agreed Procedures which set out how the various arrangements will actually operate. All Agreed Procedures were consulted on with participants and final versions published on 25 June 2007. All of these documents can be found on the AIP website.

Because the SEM represents a significant change in the trading arrangements for Electricity in Northern Ireland, existing licences need to be modified and new licences developed. For example SEM is built upon existing structures within existing bilateral markets meaning many of these structures needed to be harmonised so that they do not cause market distortion in the new SEM. Other changes to licences applying in Northern Ireland were necessary as part of the development of the market power mitigation strategy put in place to ensure that the SEM would deliver the benefits of competition in wholesale electricity trading.

All of these changes were consulted on through the Project Office, with consideration being given to the views expressed in the responses the RAs received.

On 3 July 2007 the Utility Regulator, with the consent of the DETI, implemented these licence changes (including transition provisions to cover the period up to the actual establishment of the SEM). We also designated the Trading and Settlement Code for the purposes of the licences, to give legal certainty to the actual form of document which the licensees will be obliged to accede to. The Utility Regulator considers that as one of the consequences of “Go-Active” having been reached, the SEM will be available for immediate establishment on or about November 2007.

This rest of this paper sets out the reasons Utility Regulator considers that the SEM meets the requirements of Paragraph 3 (A) of the cancellation condition as set out above.

Requirement 1: **Constitute proper and adequate arrangements for the trading of electricity and the calculation and settlement of payments due for the provision of available generating capacity and the delivery or supply of electricity.**

**Market Operator**

Market participants will conduct all trading of electricity through the Market Operator (MO) . The MO role will be responsible for the administration of the arrangements provided for by the TSC, including the establishment, development, operation and maintenance of the all-island trading and settlement system. Generators sell all of their energy through the MO, based their commercial offer data submissions, and suppliers purchase all of their energy through the MO.

Under the SEM Order 2007 and equivalent legislation in the Republic of Ireland - the Electricity Regulation Act 1999 ( as amended by the Electricity Regulation (Amendment) (Single Electricity Market) Act 2007 **-** SEM operation is a licensable activity. To this end SONI and EirGrid have been granted licences[5] to carry out the SEM operator activity in their respective jurisdictions, who will be responsible for the administration of the arrangements provided for by the SEM Trading and Settlement Code (TSC), including the establishment, development, operation and maintenance of the all-island trading and settlement system. Due to the all-island scope of the MO role, it will be necessary for the two MO licensees to come together to discharge the MO obligations set out in the TSC. In carrying out the MO role Eirgrid and SONI will be responsible for the calculation

[5] The form and content of the MO licence were consulted on in September 2006 (AIP/SEM/159/06), (Supplementary consultation on individual condition - January 2007), February 2007 (AIP/SEM/07/17) with final proposals put forward in May 2007. The final Proposal formed the basis of the licences granted at "Go Active" by DETI and CER.

and settlement of all wholesale energy trades and other charges and payments (e.g. in relation to generation capacity) set out in the TSC.

Under the new Market Operator licences which came into effect at “Go-Active” the Market Operators are required to enter into a Market Operator Agreement (MOA). The two MO licensees developed and published the heads of an MOA in September 2006 setting out how they would interact to carry out their function. The MOA which came into effect on “Go-Active” substantially follows this first document. A separate MO business has been established under the everyday management of a General Manager. Overall direction of the organisation will be given by a Governing Committee comprising executives of both SONI and EirGrid.

**Calculation of Payments for Energy**

The high level design for the all island whole sale electricity market opted for a single unconstrained (all island) System Marginal Price – set for each half hour period and based on generation schedules optimised over the whole trading day (06:00 each day to 06:00 the next day). Since the Publication of the High Level Design Paper these decisions have been further developed as the Trading and Settlement Code has been developed and consulted on.

Section 4 (and Section 5 in relation to special Units) of the Trading and Settlement Code along with Appendices (I, J, K and L in relation to data and Appendix N on the operation of MSP software) contain the detail of how pricing will operate in the SEM – below is set out a rough guide to the main features, where appropriate along with the rationale for methods chosen in the design of SEM.

Generators submit Commercial Offer Data at 10 AM on the day before the

trading day consisting of up to 10 Price-Quantity pairs (and under their licences they are required to bid Short Run Marginal Cost (SRMC) in line with a Bidding Code of Practice) along with Technical Offer Data relating to Ramp Rates, minimum stable generation etc. Based on their Offer Data Generators are given an indicative unconstrained schedule. They are dispatched each day by the System Operators (see below) and the Market Operator subsequently calculates an ex-post unconstrained schedule (EPUS). The System Marginal Price is based only on EPUS, while divergences between the Market Schedule Quantities (MSQ) under EPUS and actual dispatch (e.g. due to transmission constraints) are made based on the SRMC of generators.

The System Marginal Price is calculated using an algorithm which works over three stages: Unit commitment; optimal dispatch and post processing. The optimisation period has been set to the period from 06:00 each day to 12:00 on the following day (the optimisation time horizon) – that is it takes into account a proportion of the following trading day.

*Unit commitment*

The objective of the algorithm in unit commitment is to minimise costs – including incremental costs – subject to the constraint that generation must meet demand in all periods.

*Shadow Pricing*

The scheduling algorithm is designed to pay all generators the cost of a marginal megawatt of energy for each trading period (not including start up and no load costs). However, it is important to note that this might not actually be the cost of the most expensive unit required to meet demand if it is bound by a dynamic constraint.

*Uplift*

Because of the operation of the Unit Commitment part of the SMP calculation, it is possible that not all start up and no load costs are recovered from the infra-marginal rents associated with SMP. This is to be recovered by an additional "uplift" to SMP.

After consultation and discussion at the Rules and Liaison Group the RAs published a decision document (AIP/SEM/142/06) on the objectives of methodology to be used in calculating Uplift payments. This had the overall objective of setting the cost of energy in the SEM to reflect the marginal cost of producing or consuming electricity during the optimisation time horizon. Generators' incurred costs within the market schedule during a period of continuous operation should be recovered through SMP within that period of operation. Energy prices should be reflective of underlying market dynamics; consequently the recovery of start up and no load costs through SMP should not deviate significantly from the shadow prices. The revenue paid through uplift revenues should be minimised.

Translating these objectives into a methodology and parameters was consulted on in December 2006 (AIP/SEM/230/06) and in March 2007 the RAs published a decision paper (AIP/SEM/07/51) with a final formula for the implementation of the uplift algorithm which was felt to meet these objectives best. This has been reflected in Section 4 and Appendix N of the Trading and settlement Code which sets out how the pricing algorithm will operate.

The final methodology and the parameters within it will be subject to ongoing monitoring as to its effectiveness.

*Constraint Payments and Make Whole Payments*

SMP is calculated on the basis of an ex-post unconstrained schedule, and generators are paid in accordance with their Market Schedule Quantities (MSQs). It is inevitable that because of transmission constraints on the all island network, the need for reserve, the inability of Systems Operators to operate with perfect foresight, assumptions built into market modelling and other factors this schedule will not be the same as the actual dispatch decisions taken by the System Operators. Generators receive constraint payments to keep them financially neutral for the difference between market schedule and actual dispatch. Where a generator is scheduled but not dispatched, it receives the inframarginal rents it should have received – i.e. the difference between the SMP x MSQ and the Short Run Marginal Costs which it would have incurred had it been dispatched. Conversely where a generator is not scheduled under EPUS but is dispatched by the SO it receives the Short Run Marginal Costs which it has incurred (but not any inframarginal rents).

Make Whole Payments are a top-up safety net calculated every week (billing period) to capture any submitted costs not captured by SMP (including uplift).

**Calculation of Payments for Capacity**

Having made the decision to have an explicit capacity payment mechanism, the RAs issued a consultation (AIP/SEM/19/05) on the broad options for the design of the mechanism.

The objectives of the CPM were six-fold

- Capacity Adequacy/ Reliability of the System
- Efficient Price Signals for Long Term Investments
- Price Stability

- Susceptibility to Gaming
- Fairness
- Simplicity

Several design options were assessed and international examples of their implementation given. At this point the RAs did not have a preferred option, and instead requested input from interested parties. Respondents generally favoured capacity payments based on availability and payments sculpted to season and time of day set at least one year in advance. In setting the total size of payments, respondents favoured either a Fixed Revenue methodology or Loss of Load scaling methodology.

Reflecting these responses and after analysis of the various options, the RAs issued a decision paper (AIP/SEM/53/05) which set out a fixed revenue methodology under which the total revenue would be calculated based on a target level of generation, calculated by reference to an acceptable loss of load expectation, multiplied by the annual capital cost of a peaking plant. The fixed revenue element was felt to provide greater revenue certainty to generators and more stable capacity payments from year to year.

The various factors involved in making these calculations were consulted on extensively[6]. The final decisions on the best method to calculate the capacity pot and distribute it temporally and across generators have been translated into the provisions of Section 4 (and Section 5 in respect of special units) and Appendix M of the Trading and Settlement Code.

Broadly these involve estimating and annualizing the full project costs that would

[6] see consultation AIP/SEM/124/06 and decision AIP/SEM/07/14 on capital costs of BNE peaker, consultation AIP/SEM/111/06 and decision AIP/SEM/07/13 on the capacity requirement, consultation AIP/SEM/161/06 and decision AIP/SEM/231/06 on Capacity payment factors, Decision AIP/SEM/07/05 on LOLP, decision AIP/SEM/07/54 on ex ante margin.

be incurred by a developer of a new BNE peaking plant (determined for 2007 as an Alstom 13E2) less estimated inframarginal revenues derived from the energy and Ancillary services markets. The capacity requirement has a single adequacy standard for the whole island and available capacity is calculated based on Generator Units' declared capacity taking account of scheduled outage duration and forced outage probabilities (with an assumed improvement to the level of NI standards across the island – see discussion on requirement 4 for further consideration). Demand is forecast by the System Operators on an all-island basis.

The total pot arrived at using this methodology is then divided into separate monthly pots with each monthly pot being further divided into fixed, ex post and ex-ante elements. The fixed element is profiled within each month based on forecast demand, the ex-ante element is profiled based on a forecast of the loss of load probability in each half hour relative to the sum of such probabilities over the whole month while the ex-post element is allocated in a similar fashion to the ex-ante element, save that the loss of load probability is calculated by reference to ex-post actual availability and outturn demand.

This keeps sufficient volatility in the payments to signal the need for availability during periods of system stress but also provides a smooth stream of payments over the course of the month. Generators' shares of the capacity payments for a period are calculated by reference to their availability, accounting for energy limitations where relevant (although for wind and interconnector units availability is calculated based on energy delivered ), in proportion to the sum of all plant availabilities in the period and adjusted for how close their bids are to the value of lost load .

**Settlement**

The procedures relating to Settlement are set out in section 6 and Appendices G (Invoices and Settlement Statements) and L (Meter Data Transactions) of the

Trading and Settlement Code and in Agreed Procedures 9 (Management of Credit Coverand Credit Default), 10 (Settlement Reallocation) and 15 (Invoicing).

*Invoicing and Settlement Statements*

Settlement statements to both suppliers and generators are based on data provided by the System Operators and Meter Data Providers to the Market Operator (the MO issues indicative and initial settlement statements). The Market Operator is responsible for invoicing, and collecting payments from, suppliers[7] and for paying generators[8] – however the contractual relationship is deemed to be between the generators and suppliers, and this is laid out specifically in the TSC[9], with the MO merely taking on an administrative role. Payments and charges for energy are aggregated on a "Billing Period" basis which is defined as one Week commencing at midnight on Sunday, while payments and charges for capacity are aggregated on a one month "Capacity Period", starting at midnight on the first day of the month.

The market operator invoices suppliers weekly for energy from the pool based on their metered data for their registered supplier units.[10] They are billed both for their energy consumption at SMP for each trading period plus what is termed an imperfections charge (which makes allowance for constraint payments and Make Whole Payments). Imperfections charges are calculated based on suppliers' shares of total energy delivered through the pool. This is applied to a forecast imperfections price, proposed by the Market Operator (and approved by the Regulatory Authorities) which is intended to recover the total cost of constraints and Make Whole Payments across the year.

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[7] Referred to in the TSC as to Participants in respect of their Supplier Units.

[8] Referred to in the TSC as Participants in respect of their Generator Units.

[9] See paragraph 4.39 of the TSC.

[10] However the former PES operations of NIE and ESB Supply will cover the difference between Total Energy supplied and total metered data.

Suppliers are invoiced for capacity based on their demand for energy in each trading period – that is if a supplier consumes half of energy in a trading period it is billed for half of the capacity pot allocated to that period.

Participants are also charged both on a billing period and on a capacity period basis for their share of the costs incurred by the Market Operator in converting euro to pounds sterling or vice versa in order that participants can be paid in the right currency.

*Credit Cover*

Section 6 of the TSC and Agreed Procedure 9 covers credit cover requirements for the risk of a payment default by a Participant on their financial obligations in the SEM. Effective management of this risk is essential to ensuring the financial integrity of the SEM (which in turn is fundamental in establishing the confidence of existing and potential new entrants).

Credit Cover is collateral required to be posted as a guarantee against a Participant's credit risk in the SEM. In the event of a payment default, this Credit Cover can be utilised by the MO to satisfy the Participant's outstanding financial obligations in the SEM. Because of the potential for Resettlement, a Participant withdrawing from the market will not receive full return of its Posted Credit Cover until the Resettlement period has passed (currently 14 months). A Participant's credit risk is the aggregate credit risk for all its potential payments in the SEM. It includes Trading Charges, Capacity Charges and Market Operator Variable Charges, and also makes allowance for Settlement Reallocation Agreements which can offset these obligations. This is because the risk posed by the Participant is an aggregate risk – a company goes bankrupt everywhere at the same time. This overall credit risk is expressed in the form of a Credit Cover Requirement for each Participant.

Credit risk at any given point in time is outstanding invoices and ‘settled but not invoiced’ amounts and the potential exposure from the last settled trading period through to when a Participant could be removed from incurring further liability (calculated based on a statistical analysis of historical exposures)

Credit Cover for use in the SEM must be posted in the form of

- Cash (in the Currency of the Participant) in a SEM Collateral Reserve Account; and/or
- Letter of Credit (LC) in an approved form set out in Appendix A of the TSC which is capable of being paid out within 1 Working Day following a Credit Call.

The MO is to be the beneficiary of the letter of credit, as it is the MO, as agent and trustee for Participants, who is responsible for making payments to generators. Using the methodology set out in Agreed Procedure 9, the MO will calculate the Required Credit Cover each Working Day, in order to issue Credit Cover Increase Notices immediately by the end of that Working Day.

*Disputes*

Disputes in general relating the Trading and Settlement Code are covered under section 2 and in Agreed Procedure 14.

If participants are unhappy with their settlement statement they can question the results by raising a settlement query with the market operator. Settlement queries must be resolved by the MO within a month of it being raised. If participants are not satisfied with the resolution of query by the MO, it becomes a dispute and a dispute resolution board (of either one or three members) may be established (from a panel approved by the RAs. If the board is unable to resolve the dispute to the satisfaction of both participants, there is provision for the for the dispute to

be brought to Court.

**CONCLUSION:** The Utility Regulator is of the opinion that the arrangements for the trading of electricity and the calculation and settlement of payments for the provision of energy and capacity in the SEM set out in the Trading and Settlement Code and associated Agreed Procedures and implemented in the licences of Eirgrid and SONI are proper and adequate.

**Requirement 2** Adequate arrangements for, and proper remuneration, of System Support Services

System Support Services (SSS) is a defined term in Generator licences (see licence for formal description) meaning:

a) spinning reserve, fast start, black start, reactive power, frequency control and such other services as the licensee may be required to have available as system support services in association with any generation set pursuant to the Grid Code, including outage planning incentive arrangements; and
b) such services as the licensee may have agreed to have available as being system support services in association with any generation set pursuant to an agreement made with the transmission system operator;

and which may be offered for sale to the transmission system operator for the purpose of securing stability of operation on the transmission system, the distribution system and the distribution system of any authorised electricity operator or any system linked to the transmission system or the distribution system by an interconnector.

Generators (or their representatives) currently receive a SSS availability credit payment from NIE. The SSS availability credit averages £0.50/MW/h (the actual credit rate is weighted for time of year and time of day). A failure to provide any of the system support services or a declared inflexibility will result in a reduction of the SSS availability credit and possible rebate payments from the generator to NIE. SSS costs in NI are recovered from demand customers through a SSS levy.

Although the High Level Design Paper noted that the RAs were not minded to change the procurement of ancillary services (which includes SSS) following proposals from the SOs, the RAs published a consultation paper in July 06

[AIP/SEM/96/06], indicating that we were minded to support a review of Ancillary Services arrangements in RoI and SSS arrangements in NI. Our preference to support a review was based made for the following reasons:

1. to remove any potential distortion caused by differing payment rates and mechanisms,
2. to create a single set of services that will apply on an All Island basis
3. to promote more competitive provision of AS/SSS,
4. to facilitate more efficient utilisation of these services by the TSOs
5. to ensure that the services are procured and called off on an efficient, optimal, non-discriminatory, all-island basis.

However, this was not felt to be achievable in time for the initial implementation of SEM, and is thus a day 2 issue. The decision that SSS costs in NI would continue to be recovered through the SSS levy on demand customers was confirmed in a decision paper issued on 29 September 2006 [AIP/SEM/160/06] . Continuation of the existing, separate, commercial arrangements within each jurisdiction for a limited period is not considered to present a significant distortion to the SEM.

**Conclusion**: The Utility Regulator is of the opinion that adequate arrangements are in place for the provision by relevant generators of all necessary System Support Services and the proper remuneration of those services.

**Requirement 3**: A technically viable despatch system

Despatch is a function of the System Operator (SO). Arrangements for despatch are governed by the terms of the relevant SO licences. Changes to existing licence condition relating to the merit order despatch were consulted on as part of the development of licences for System Operator to replace those currently held by Eirgrid in the Republic and NIE (SONI) in Northern Ireland. The first draft licence was consulted on on 9 January 2007 (AIP/SEM/232/06), with a second consultation and revised draft (AIP/SEM/233/06) issued on 5 May 2007.

It is the objective of the SEM that production costs are minimized on an all island basis in the actual operation of the transmission system. With two separately licenced SO's this requires that they co-operate closely. This objective has been reflected in harmonised merit order and despatchconditions in the two SO Licences, Condition 22 in the licence applying to SONI and Condition 10 in the Eirgrid licence.

The System Operator in Northern Ireland, in conjunction with the System Operator in the Republic of Ireland, is required by its licence to use the commercial offer data submitted by generators to establish and operate a Merit Order of available SEM generation as the basis for real-time generation scheduling and despatch.

In implementing despatch the System Operators must take account of

- forecast demand on the island,
- technical constraints on the all island network
- the operating characteristics of generation
- forecast exports
- transmission and distribution losses
- relevant security standards
- the provisions of the grid codes.

As each SO will retain a separate control centre (although the two SOs will be working together in operational planning timescales to identify appropriately co-ordinated all-island control actions) from which despatch instructions to generators connected in the local jurisdiction will be issued there will be practical limitations on the extent to which full all-island optimisation will be achieved in all timescales, in particular in despatch timescales.

Hence, whilst generation scheduling for control purposes may be reasonably well optimised on an all-island basis, in despatch timescales, where there are deviations from the all-island schedule given the practical constraints associated with the retention of two control centres, a full all-island re-optimisation may not always be practical in the despatch phase. Nevertheless, given that:

(a) an all-island optmised generation schedule will be used as a reference for despatch;

(b) some post-fault actions will have been jointly planned in the operational planning phase; and

(c) elements of reserve/response holdings will be based on all-island optimisation,

It is anticipated that even though most despatch decisions will be made locally, the overall despatch solution will be substantially optimised on an all-island basis.

The System Operators are also updating their respective Grid Codes. This process involves, inter alia, adapting the elements of the Scheduling and Despatch sections of the Grid Code to reflect the new market arrangements which do not allow for bi-lateral contracts. This process is subject to consultation with users. The SOs will consider comments received from users in conjunction with the RAs and update the Grid Code sections as necessary.

For information purposes updated Grid Code drafts are expected to be published on the two SOs' websites by 21 August 2007. Regulatory approval of the Grid

Codes will take place soon thereafter and the RAs expect to publish a note on the AIP website approving the Grid Codes by 18 September 2007

**CONCLUSION** Based on the licence conditions applying to Eirgrid and SONI, the Utility Regulator is of the opinion that the SEM will be based upon a system of despatch of generation sets which is technically viable and will not prejudice the security and stability of the total system or any part of it.

**Requirement 4** Adequate incentives for generators to be available to satisfy reasonable demands for electricity in Northern Ireland.

The SEM is designed to ensure that sufficient capacity is available to meet demand on the island of Ireland to an agreed adequacy standard. Security of supply was one of the six criteria identified in the High Level design. The incentive for generators to make capacity available comes through several channels:

- Eligibility for capacity payments

- Opportunity to earn infra-marginal rents

- Opportunity to earn other revenues such as Ancillary Service payments

**Capacity Payments Mechanism**

The Capacity Payments Mechanism (CPM) in the SEM is a mechanism of Fixed Revenue, in which an Annual Capacity Payments Sum (ACPS) is determined. The Annual Capacity Payment Sum is profiled prior to the start of the year into 12 monthly amounts (Capacity Period Payment Sums), weighted based upon forecast demand so as to deliver an incentive for generators to be available when capacity will be required.

The ACPS is calculated as the product of two numbers:

- a Price, determined as the fixed costs of a Best New Entrant (BNE) peaking plant; and

- a Volume, determined as the amount of capacity required to just meet an all island Generation Security Standard (GSS).

**Generation Security Standard (GSS)**

Work continues on the development of an all-island security standard; but for the purposes of the Volume element of the ACPS calculation, a GSS of 8 hours of lost load per year was used for the 2007 and 2008 calculations. The standard produces a level of estimated unserved energy no worse than that given by the existing standards in each separate jurisdiction. By calculating the parameters for the Annual Sum from this standard, the Regulatory Authorities are inherently incentivising adequate available generation to meet reasonable demands for electricity in NI.

**Capacity Required to meet the GSS**

A key factor in determining the Capacity Requirement is the assumption of the forced outage probabilities (FOPs) associated with the plant on the system. Historic NI forced outage probabilities (FOP) have been used to establish a target FOP for use in calculating the Capacity Requirement. One of the Objectives of the CPM is to provide an incentive for improvements in plant availability. The Regulatory Authorities consider that by establishing the Capacity Requirement against a target FOP value, generators will be provided with an incentive to improve their performance so as to capture more of the CPM payments. Using the performance improvement seen in NI since privatisation as a basis for establishing such a target is a reasonable approach. Doing so also serves to increase the incentive for generators to meet reasonable levels of demand in Northern Ireland.

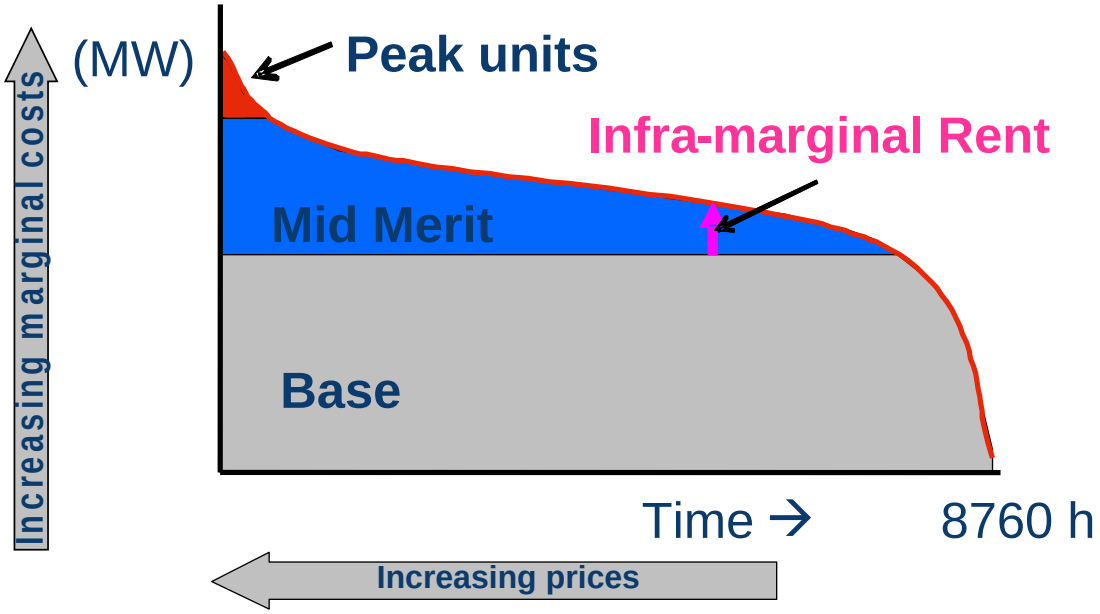
**The distribution of the Sum across Trading Periods**

Each Capacity Period Payment Sum is split into three separate sums - Fixed, Variable and Ex-Post. The Fixed element (30%) is set ex-ante and its allocation is based on Forecast Demand, such that more money is allocated in periods of high Forecast Demand. The Variable element (40%) is also profiled ex-ante and

is based on Forecast Loss of Load Probability (LoLP), such that more money is allocated in periods of higher Forecast LoLP. The Ex-Post element (30%) is profiled ex-post and is based on the Ex-Post notional LoLP, such that more money is allocated in periods in which the probability that load could have been lost was high.

**Energy Market Revenues**

The CPM and the energy market have been designed to complement each other in their operation. Generators are also motivated to provide capacity to the market through the opportunity to earn infra-marginal rents. As the SEM will be based on a single clearing price, the potential to earn significant revenues at times of high demand is clear. This is because the times of highest demand will require the scheduling and dispatch of the plant with the highest marginal costs, increasing the System Marginal Price, benefiting all generators with lower Short Run Marginal Cost who have made their plant available on that day. The diagram below illustrates the principle of infra-marginal rent.




In the diagram, plant with a Short Run Marginal Cost on the black line will receive inframarginal rent (i.e. payments in excess of their Short Run Marginal Cost)

when SMP is set by generating units with higher costs, as shown by the pink arrow.

**Conclusion:** The Utility Regulator considers that the methodology developed constitutes adequate incentives to make sufficient capacity available to meet reasonable expectations of demand.

**Requirement 5** Generators and relevant licensed suppliers are contractually bound to comply with the provisions of the Northern Ireland Fuel Security Code

Condition 5 of the amended Northern Ireland Generator licences requires licensees to comply with the provision of the Northern Ireland Fuel Security Code as if it were a part of that licence.

Changes to Northern Ireland Generator licences were consulted on in February 2007 [SEM/AIP/0730] and a proposed decision issued on 9 May [AIP/SEM/07/140].

Condition 6 of the amended Northern Ireland Supply licences requires licensees to comply with the provision of the Northern Ireland Fuel Security Code as if it were a part of that licence.

NI supply licence consultations were published on 27 March [AIP/SEM/07/56] and 15 May [AIP/SEM/153] (which incorporated responses to the first consultation).

Licence conditions of this sort create legally binding obligations which attest that all generators and relevant licensed suppliers are contractually bound to comply with the provisions of the Northern Ireland Fuel Security Code

**Conclusion:** The Utility Regulator is of the opinion that the applicable enduring licence conditions in the SEM ensure that all generators and relevant licensed suppliers are contractually bound to comply with the provisions of the Northern Ireland Fuel Security Code or, to the extent superseded by any other code or arrangement, such other code or arrangement.

**Requirement 6** PPB is recompensed for the purchase of electricity under legacy contracts which have not been cancelled

All PSO obligations are collected by NIE PLC in its capacity as the Transmission Owner through charges levied on all suppliers based on their share of total demand. This includes amongst other things the cost of servicing contracts under the Non Fossil Fuel Obligation, maintaining the Land Bank (see Requirement 9 below) and covering the difference between PPBs payments under the PPAs and its receipts from the pool.

Annex 3 of NIE Energy's licence covers how PPB is to calculate the element of the PSO[11] due to it. The formula to be used includes provision for the total payments due to generators under the PPAs, and accounts for the revenues which PPB will receive from the Pool (energy and capacity payments) as well as covering operating and capital expenditure necessary for PPB to carry out its function. NIE PLC will include this in the total charge on suppliers for each MWh or energy delivered, and make payments to PPB for their amount due on a monthly basis.

As the total difference between payments under the PPAs and receipts from the pool is unpredictable the formula also allows for under or over recovery in anyone year to be carried over to the following year.

**Conclusion:** The Utility Regulator is of the opinion that arrangements are in place pursuant to which the power procurement manager is entitled to recover monies equal to the shortfall (if any) between the sums it pays for amounts of generation capacity and quantities of electricity under the power purchase agreements to which the power procurement manager is a party and which are cancellable generating unit agreements which have not been cancelled and the amounts it recovers for the provision of such generation capacity and the sale of such quantities of electricity in the Single Electricity Market.

[11] At present this is a default Price Control as elements of any incentive mechanisms to apply to PPB in SEM have yet to be agreed.

**Requirement 7** Not require any generator to breach any obligation under Large Combustion Plants (Control of Emissions) Regulations (Northern Ireland) 1991 in relation to emissions.

The Large Combustion Plants (Control of Emissions) Regulations (NI) 1991 have been added to (but not superseded or repealed) by the Large Combustion Plants (NI) Regulations 2003. The relevant obligations which relate to emissions are:

> Regulation 3: whereby an operator must ensure that emissions of $SO_x$ and $NO_x$ from its plant do not exceed the permitted levels (as specified in the Department of the Environment for Northern Ireland's register)
>
> Regulation 4: an operator must monitor such $SO_x$ and $NO_x$ emissions from its plant and regularly inform the Chief Alkali Inspector of emitted quantities of same (including when emissions of either amount to 85% of permitted levels and exceptionally report when particular difficulties or circumstances give rise to breaches of the permitted level).

Despatch is centrally planned in the SEM, and is carried out by the System Operators based on Commercial and Technical Offer data submitted by participants.

Participants are responsible for submitting their plant availability as part of the Technical Offer Data. This must be done in line with the TSC, which requires that participants include a Forecast Availability Profile which must contain the Participant's forecast of average level of availability, in MW, for the Generator Unit for each Trading Period in the Optimisation Time Horizon. The forecast Availability values can be set at zero, which is what would effectively be the case where a generator would breach its obligations under environmental legislation were it to run.

The Utility Regulator is not of the opinion that rules relating to technical offer data in the TSC could be reasonably interpreted as requiring a generator to declare itself available when to do so would cause it to breach its obligations under legislation.

Additionally, Generators are scheduled and despatched on the basis of the Technical and Commercial Offer Data which they submit. These are submitted in line with condition 18 of Generators licences in Northern Ireland. This requires generators to bid in line with a Bidding Code of Practice which recognises that the total quantity of emissions a generator is allowed to emit may be limited. In such circumstances it allows the generator to take account in its bid of the optimal time at which to emit pollutants the total permissible quantity of which is limited over a period of time.

**Conclusion** The Utility Regulator is of the Opinion that the SEM will not in its operation require any generator to breach any obligation incumbent upon it under the Large Combustion Plants (Control of Emissions) Regulations (Northern Ireland) 1991 in relation to emissions

**Requirement 8** Not worsen the financial position of generators with cancellable generating unit agreement because of the operation of Clause 7.3.2 (which relates to $NO_x$ and $SO_x$) of the power station agreements;

Clause 7.3.2 of the Power Station Agreements states that on cancellation or expiry of any of the GUAs Clause 5 of the PPA will no longer apply but clause 12 will continue to apply[12].

- Clause 5 relates to Generator's duty to control actual $SO_x$ and $NO_x$ emissions and allowed PPB to allocate allowances between generators.

- Clause 12 allows the parties to the Power station agreements to request changes to the calculation etc. of relevant emissions.

7.3.2 has already come into effect, as a result of the cancellation of the Belfast West GUA. Therefore Clause 5 has ceased to apply and Clause 12 continues to apply. Thus the requirements to have arrangements which will ensure that generators are not disadvantaged by the operation of 7.3.2 are obsolete.

**Conclusion**: The Utility Regulator is of the Opinion that Generators with cancellable GUAs which have not been cancelled shall be in no worse a financial position in respect of its rights under that cancellable generating unit agreement by reason of the operation of Clause 7.3.2 of each power station agreement.

[12] "Notwithstanding any other provisions of this agreement, clause 5 hereof shall cease to apply (and the provisions of clause 12 shall apply) upon the cancellation by the director or expiry or termination of any Generating Unit Agreement or of any other agreement between the Purchaser and the owner of any other power station in Northern Ireland relating to a generating unit at such power station"

**Requirement 9** The costs of Land Bank are appropriately shared between suppliers.

Suppliers in this context means both granted supply licences and relevant exempt self suppliers. Under condition 21 of supplier licences, licensees are obliged to enter into the PSO agreement with NIE PLC. Modifications to supply licences were consulted on as described in the section dealing with requirement

Condition 23 of NIE PLC's licence to participate in the transmission of Electricity (first consultation AIP/SEM/07/174, second consultation AIP/SEM/07/45) sets out how it is to deal with the Land Bank, and how it is to calculate the amount it is due to be paid for the maintaining the Land Bank. This is equal to the costs of NIE dealing with the land Bank less the revenues is entitled to receive from lease or disposal of any part of the Land Bank.

This total amount is included in the calculation of the total PSO charge on suppliers as set out in Annex 1 of the NIE TO licence. As already explained NIE will collect the total PSO amount from all suppliers and retain for itself that proportion dealing with the Land Bank.

**Conclusion**: The Utility Regulator is of the Opinion that an appropriate share of the costs of the Land Bank Business shall be borne by each relevant supplier

**Requirement 10:** Not cause licensees to be unable to finance their licensed activities.

The key considerations when considering whether licensees are able to finance their operation are whether the design of the SEM forces participants to take on unwarranted risk, or creates cash flow difficulties. The impact of the new trading arrangements on the predictability and riskiness of participants revenue flows are directly, but differently affected for different types of participants. As a consequence it is worthwhile to consider them separately.

Generators

- Generators are guaranteed a market for all of their generation which is within the merit order. One benefit of this is that it prevents an efficient new entrant from being frozen out of the market by incumbent suppliers with relationships with generators. This means that an efficiently run generation set can be sure of appropriate cash flows.

- Generators requirements for credit cover are dealt with through the Market Operator. How the Market Operator determines Credit Cover under the TSC has already been described above. For the purposes of financability the collateralised nature of the SEM means that generators are not exposed to high risk of the default of a supplier.

- The operation of the Capacity Payment Mechanism, by design, gives a high degree of certainty to generators as to likely cash flows. As discussed earlier the total pot for the year is known in advance, and the balance between the amount based on predicted demand and outturn demand was set to achieve the appropriate balance between predictability for generators and sensitivity to periods of particularly high demand or tight margin. These features of the CPM allow generators to make good estimates of likely cash-flows when securing finance.

- The CPM has been designed to ensure that the Best New Entrant

peaking plant will have sufficient revenues to recover all of its incurred capital costs.

- Although the SEM is designed as a spot market, with attendant variability in prices, it has been the clear expectation of the RAs in designing it that derivative “Contract for Difference” (CfD) markets would develop. CfDs are equivalent to futures (or alternatively options) and allow participants to hedge their exposure to changes in pool prices. We have also encouraged CfDs in two crucial ways.

    - As part of the market power mitigation strategy generators with significant market power ESB PG has been obliged to offer CfDs at a directed price (so called Directed Contracts)[AIP/SEM/165/06]. For this purpose a “Standard Contract” drawn up with the involvement of all market participants and is expected to form the basis of bilateral deals

    - In order to ensure that ESB PG and NIE’s Power Procurement Business did not unduly favour affiliates they have been obliged to auction any CfDs which they offer to all suppliers, and allow independent generators to offer CfDs in these auctions as well. This is set out in “Regulation of ESB and NIE in SEM: A Decision Paper” [AIP/SEM/304/07]

- Given the relatively small size of the SEM it is expected that any other trading will involve “over the counter” bilateral deals (rather than exchange traded) for particular types of products. However, the standard contract developed for directed contracts and the auctions led by NIE and ESB PG will facilitate the creation of a liquid market in these types of deals.

- The SEM has been designed to ensure that participants are not required to suffer operational losses. Generators commercial offer data should reflect the costs of operating to generate electricity on a particular day,

indeed this is a licence obligation, and these data are used to schedule and despatch them. These data are also used to when they are "constrained on" they are not obliged to suffer operational losses. Financing of generators capital costs is done through capacity payments (which are, as explained, relatively certain) and inframarginal rents, which generators can lock in using CfDs if they see this as being in their interest.

Suppliers

- Independent Suppliers are guaranteed access to energy through the SEM, and cannot be frozen out by dominant generators with ties to competitor suppliers.

- Suppliers' payments under the CPM are largely predicatable. Suppliers are charged for capacity based on their metered supply. Moreover, the bulk of the CPM is known in advance, allowing suppliers to have a high degree of certainty of their likely payments due.

- If suppliers wish, it is open to them to hedge their energy payments using CfDs. Directed Contracts are offered to suppliers on the basis of the Maximum Import Capacity (MIC) – a proxy for their expected share of demand [AIP/SEM/144/06], and they can participate in the auction for non directed contracts led by ESB PG and NIE PPB. The terms under which suppliers could enter into DCs (that is a standard contract) were developed by industry participants with the facilitation of the RAs, ensuring that the credit terms are not unreasonable.

- The Credit Requirements established under the TSC are not onerous, and supplier viewpoints were taken on board as part of the consultation process. Moreover, if generators were willing to offer more generous terms, this is possible using settlement reallocation where participants can

Power Procurement Business and NIE Energy

- NIE Energy, incorporating the PPB and the PES supply functions, captures elements of both supply and generator businesses. However its special position also means that it is subject to regulation to ensure that it operates efficiently, and receives sufficient revenues to cover allowable costs.

- In line with requirement 6, PPBs payments under the Generator Unit Agreements are covered by the PSO. The PSO will also cover any shortfall arising as a result of agreed hedging positions (subject to the development of incentive arrangements).

- NIE Energy, as the former PES, is regulated under a charge restriction condition which allows the supply business to recover sufficient revenue through its tariffs. This price control allows NIE Energy to recover the cost of energy it purchases from the pool together with its uptake of Directed Contracts and efficiently purchased hedging contracts. Other costs, such as Use of System charges and internal operational expenditure are also included in the allowed revenue. Under or over recovery in any particular period can be recovered in the following year.

Other participants

- Even though SEM will facilitate the increase of competition in the electricity market, functions such as System Operation, or Transmission and Distribution Ownership remain natural monopolies. Price controls have been or will be agreed with other participants offering these services which allow them to adequately recover allowable costs, and provide them with incentives to operates

**Conclusion** The Utility Regulator is of the opinion that the SEM will not, in its operation, cause licensees to be unable to finance the carrying on of the activities which it is authorised by their licence to carry on.

**Next Steps**

Interested parties should send their comments on the Utility Regulator's proposed determination that SEM constitutes the requisite arrangements and meets the requirements of the cancellation condition.

The Utility Regulator intends and prefers to publish all comments received, but we are prepared to facilitate those respondents who wish certain sections of their submission to remain confidential. Accordingly, respondents that so wish should submit these sections in an appendix that is clearly marked "Confidential".

Comments should be forwarded, preferably in electronic form, to tadhg.obriain@niaur.gov.uk or post to;

Tadhg O'Briain
NIAUR
Queens House
14 Queens Street
BELFAST
BT1 6ER

The deadline for receipt of comments is 1700h on 28 September 2007

## Annex A

Cancellation Condition appearing in the licence of Kilroot Power Limited. Similar condition appear in other electricity licence.

**Modification of Supply Competition Code and cancellation of contracts**

1. When the Authority shall have determined that the requisite arrangements have been developed and that they satisfy the requirements of paragraph 3, it shall be entitled to exercise the powers specified in paragraph 4, provided that the procedural requirements of paragraph 6 have been followed.

2. The requisite arrangements are arrangements which, if implemented by means of the making of modifications of the Supply Competition Code, the Grid Code and the Northern Ireland Fuel Security Code, or otherwise implemented (in whole or in part) under or by virtue of the powers contained in the Electricity (Single Wholesale Market) (Northern Ireland) Order 2007, would facilitate an increase in competition in the generation of electricity available for supply in Northern Ireland or the supply of electricity in Northern Ireland for the benefit of consumers of electricity in Northern Ireland in respect of the prices charged and the other terms of supply, the continuity of supply and the quality of the electricity supply services provided.

3. The requirements of this paragraph are:

   (A) that there is available for immediate establishment an electricity trading system by which (except as provided in paragraph 7) the power procurement manager and all licence holders will be bound and which, in the opinion of the Authority, will:

      (i) constitute proper and adequate arrangements for the trading of electricity and the calculation and settlement of payments due for the provision of available generating capacity and the delivery or supply of electricity;

      (ii) ensure that adequate arrangements are in place for the provision

by relevant generators of all necessary System Support Services and the proper remuneration of those services;

(iii) be based upon a system of despatch of generation sets which is technically viable and will not prejudice the security and stability of the total system or any part of it;

(iv) ensure that there are adequate incentives for relevant generators to make available such generation capacity as will in aggregate be at least sufficient to ensure that all reasonable demands for electricity in Northern Ireland are satisfied;

(v) ensure that all generators and relevant licensed suppliers are contractually bound to comply with the provisions of the Northern Ireland Fuel Security Code or, to the extent superseded by any other code or arrangement, such other code or arrangement;

(vi) ensure that either

(a) relevant suppliers shall contract for or acquire, in aggregate, amounts of generation capacity and quantities of electricity from the power procurement manager which are not less than the amounts of generation capacity and quantities of electricity for which the power procurement manager is committed to pay under:

A. the power purchase agreements to which the power procurement manager is a party and which are cancellable generating unit agreements which at all relevant times have not been cancelled; and

B. the power purchase agreements to which the power procurement manager is a party and which are not liable to be cancelled;

or:

(b) arrangements are in place pursuant to which the power procurement manager is entitled to recover monies equal to the shortfall (if any) between the sums it pays for amounts of generation capacity and quantities of electricity under:

A. the power purchase agreements to which the power procurement manager is a party and which are cancellable generating unit agreements which at all relevant times have not been cancelled; and

B. any power purchase agreements to which the power procurement manager is a party and which are not liable to be cancelled;

and the amounts it recovers for the provision of such generation capacity and the sale of such quantities of electricity.

(vii) not in its operation require any generator to breach any obligation incumbent upon it under the Large Combustion Plants (Control of Emissions) Regulations (Northern Ireland) 1991 in relation to emissions;

(viii) contain arrangements which will ensure that each generator which shall be a party to a cancellable generating unit agreement, for so long as such agreement shall not have been cancelled, shall be in no worse a financial position in respect of its rights under that cancellable generating unit agreement by reason of the operation of Clause 7.3.2 of each power station agreement;

(ix) ensure that an appropriate share of the costs of the Land Bank Business shall be borne by each relevant supplier;

(x) not, in its operation, cause the licensee to be unable to finance

the carrying on of the activities which it is authorised by this licence to carry on; and

(B) that each generator which shall have applied for a licence under Article 10(2) of the Order to have effect from the date upon which any cancellable generating unit agreement to which it is a party is to be cancelled, shall have been granted such a licence, provided -

(a) the Authority shall at the relevant time have power under Article 10 of the Order to grant such a licence;

(b) the criteria for the grant of such a licence shall otherwise have been satisfied at the date of the application and the date upon which it is first to have effect; and

(c) there shall have been no material change in the circumstances of the applicant in any relevant respect between the date of the application and the date upon which the licence is to have effect.

4. The powers referred to in paragraph 1 are powers to serve upon the power procurement manager and the generator under a cancellable generating unit agreement a notice directing them to terminate the cancellable generating unit agreement pursuant to Clause 9.3 thereof upon such date or the happening of such event as shall be specified in the notice. The licensee shall comply with such a direction addressed to him.

5. The powers specified in paragraph 4 may not be exercised in relation to any cancellable generating unit agreement in the table appearing in Schedule 2 earlier than the date appearing opposite that cancellable generating unit agreement in that table. The Authority may, in relation to any cancellable generating unit agreement and upon the application of either party to that cancellable generating unit agreement, modify the table appearing in Schedule 2 by substituting a later date for the date appearing opposite that agreement in that table.

6. The procedural requirements which require to have been followed for the purposes of paragraph 1 are:

(a) in its preparations for the making of the determination referred to in paragraph 1, the Authority shall have consulted with the Department, all licence holders, the power procurement manager, the General Consumer Council and such other persons as the Authority shall consider likely to be materially affected in relation to the steps that it believes require to be taken and the documentation and other obligations which it believes require to be entered into, imposed or assumed in order to satisfy the requirements of paragraph 3 and to create and implement the requisite arrangements;

(b) in the consultations referred to in sub-paragraph (a) above, the Authority shall have made available to each person so consulted such drafts of the documentation in question and of the instruments or other means by which the obligations in question are to be imposed or assumed, as it shall consider are necessary so as properly to inform such persons of the detail of its proposals;

(c) the Authority shall have given each person so consulted the opportunity to make representations in relation to the relevant steps and the relevant documentation and shall have taken into consideration all such representations (other than those which are frivolous or trivial) in making the determination;

(d) the Authority shall have published its conclusions as to the relevant steps and the relevant documentation (including drafts of the relevant documentation) and its reasons for those conclusions;

(e) the Authority shall, before exercising any power under paragraph 4, have given not less than 180 days' notice to the Department, the power procurement manager, every person who at the time it gives the notice is a licence holder, and the General Consumer Council that it intends to do so; and

(f) the Authority shall, in publishing any statement of proposals or the reasons for them, have treated as confidential any representation (including any

submission of any written material) which (and to the extent that) the person making the representation shall, by notice in writing to the Authority or by endorsement on the representation of words indicating the confidential nature of such representation, have specified as confidential information.

7. The rules of the electricity trading system referred to in paragraph 3(A) contained in the Supply Competition Code as modified by the Authority in the exercise of its powers under paragraph 4 of Condition 19 or in any instrument code, agreement or other document having effect (in whole or in part) under or by virtue of the powers contained in the Electricity (Single Wholesale Market) (Northern Ireland) Order 2007, may provide that they are to apply to all licence holders except if and to the extent that:

(a) they permit the Authority to relieve the licence holder in question from compliance with them or any of them; or

(b) they make provision that they are to apply to particular licence holders or classes of licence holder differently from the way or ways in which they apply to other licence holders.

8. Notwithstanding paragraph 6, the Authority shall be entitled, after having carried out the consultations referred to in paragraph 6 and published its conclusions, both before and after it shall have given any notice of the kind referred to in sub-paragraph (e) of paragraph 6, to make any modification of the relevant documentation which either:

(a) is, in its opinion, necessary or desirable in order to refine the requisite arrangements;

(b) involves only a change of a technical nature in the requisite arrangements; and

(c) will not increase the liability or decrease the rights of any person bound or to be bound by the Supply Competition Code beyond what may be regarded as reasonable in relation to that person;

provided it gives due notice of such amendment or variation to such persons as appear to it to be likely to be affected thereby.

or

is made in accordance with the provisions of the relevant documentation being modified.

9. The implementation of the requisite arrangements may be secured (in whole or in part) either

(a) by the exercise by the Authority of its powers:

(i) under paragraph 4 of Condition 19 (to make modifications of the Supply Competition Code);

(ii) referred to in paragraph 4 of Condition 4 (to direct the transmission licensee to revise the Grid Code);

(iii) under paragraph 12 of Condition 3 of Part III of the transmission licence granted to Northern Ireland Electricity plc (to direct the transmission licensee to alter the form of the bulk supply tariff);

(iv) under paragraph 9 of Condition 6 of Part IV of the transmission licence granted to Northern Ireland Electricity plc (to direct that the economic purchasing obligation of Northern Ireland Electricity plc as public electricity supplier shall come into force); and

(v) under Clause 2.01(F) of Part 2 of the Northern Ireland Fuel Security Code (to make amendments to that Code);

or

(b) by the exercise of powers under or by virtue of the Electricity (Single Market) Northern Ireland Order 2007.

10. The licensee shall afford the Authority such co-operation as it shall in directions issued to the licensee for the purposes of this Condition request in developing and testing its proposals for the establishment of the requisite arrangements and the electricity trading system referred to in paragraph 3(A).

11. The licensee's reasonable direct costs of complying with a request made under paragraph 10 (incurred prior to the date upon which the Authority shall have first exercised its cancellation powers and for which an invoice shall have been submitted by the licensee to the transmission licensee not later than 2 months prior to the date upon which the first cancellation direction shall take effect) shall be audited in such manner as the Authority shall from time to time require and shall be recoverable from the transmission licensee.

12. In this Condition:

**"power procurement manager"** shall:

(a) whilst Condition 1 of this licence contains a definition of that term, have the meaning given to that term in that condition; and

(b) where Condition 1 of this licence does not contain a definition of that term, shall mean the Power Procurement Business.

"**Land Bank Business**" has the meaning given to that expression in the transmission licence granted to Northern Ireland Electricity plc on 31 March 1992;

"**relevant documentation**" means the documentation and other obligations referred to in sub-paragraph (a) of paragraph 6;

**"relevant generator"** means a generator and/or a person granted a licence pursuant to [reference to Republic of Ireland legislation] to engage in the generation of electricity;

"**relevant steps**" means the steps referred to in sub-paragraph (a) of paragraph 6;

and

"**requisite arrangements**" means the arrangements referred to as such in paragraph 2.