



Single Electricity Market

Non-SEM Trading for Below De Minimis Generation

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Provision of Metered Data and Query Timelines

Draft Decision

AIP/SEM/74/06

07 July 2006

I. EXECUTIVE SUMMARY

The Regulatory Authorities, CER and NIAER, held a workshop on two issues under the SEM Implementation of Metered Data Reading, Aggregation, Communication and Storage (SIMDRACS) project on Wednesday, 12 April 2006. Presentation materials, a short explanatory note and invitations were provided to the Rules Review Group (RRG) mailing list, the SEM Implementation Team's Technical Liaison Group (TLG) and Business Liaison Group (BLG) contacts, the Ireland retail Industry Governance Group (IGG), and the available list for the Further Market Opening Steering Group (FMOSG) in Northern Ireland.

At the meeting, a number of proposals were discussed in two main areas: the types of non-SEM trading (for below de minimis non-participant generation) supported by the SEM metered data aggregation processes for wholesale settlement, and the timelines of data provision to suppliers and the processes for querying that data.

Minutes and updates to the presentations were re-circulated for a two week consultation where written comments were sought. This document presents the Regulatory Authorities' draft decisions following the written feedback received, and allows for a further two-week consultation and comment. Comments should be made, preferably in electronic format and in writing, to Hugh Mullany (hmullany@cer.ie) by close of business on 28th July 2006 on these draft decisions. The Regulatory Authorities will publish all comments received on the All-Island Project website. Where respondents require that all or part of their submission remain confidential, this should be indicated in the response.

Section II gives background information and definitions in the two areas under discussion.

Section III revisits the proposals, notes participant comments, and provides draft decisions under each area. Some of these draft decisions will ultimately inform the input of the change control process of the Trading & Settlement Code (T&SC). The output of the T&SC change control process, i.e. the successful changes to the Code, will be described in Rules Liaison Groups to be scheduled later this year. The impact of other draft decisions will be reflected in the retail governance groups (IGG and FMOSG, or equivalent). Please note that where these draft decisions have knock-on impacts on other elements of the T&SC, these impacts are addressed as they occur. Such impacted elements include, for example, the definitions of the Data Query Periods and Settlement Queries.

The draft decisions are as follows:

- A generator must either be fully participant or non-participant in the SEM, i.e. a generator cannot receive payment from the Pool for part of its energy, and payment in a physical out-of-market contract for the remainder
- A generator that does not participate in the pool must sell all its energy to one supplier and one supplier only
- The above draft decision is a minimum requirement of SEM on the wholesale metered data aggregation process. Where regularised legacy arrangements exist, e.g. wheeling in Northern Ireland, these legacy arrangements will endure.
- Draft decisions relating to the provision of Metered Data and querying that data are as follows:
 - Metered data that can affect the setting of System Marginal Price (SMP) is to be provided on a Settlement Day (i.e. every calendar day) basis, in Settlement Day batches.
 - Metered data required for settlement is to be provided on a Week Day (i.e. Monday to Friday) basis, in Settlement Day batches.
 - All publication of settlement statements, updating of credit cover requirements, and the timelines for Data Queries and Settlement Queries occur on a Working Day (i.e. Monday to Friday, excluding bank holidays in either jurisdiction) basis.
 - Given the tight timelines of data provision and the degree of estimation possible in metered data in Indicative Settlement Statements for Supplier Units, the Data Query process is now restricted to data that can affect SMP. The rationale for the requirement for the continuance of Indicative Settlement for Supplier Units is raised.
 - Initial SMP during the Optimisation Time Horizon is now based entirely on Initial Metered Data for all Trading Periods.

- Supplier Units (and Generator Units) can continue to query their data under the existing Settlement Query process. Given the removal of the Data Query process for Supplier Units, all Participants now also have the opportunity to deem a Settlement Query as urgent. Urgent Settlement Queries can only be raised within three Working Days of the release of the Initial Settlement Statement, and urgent Settlement Queries are to be resolved under the same timeframes as Data Queries.

Sample data provision and data query timelines are given in three Figures at the end of this document.

II. BACKGROUND

The Regulatory Authorities consulted on two areas of particular interest to suppliers under the Single Electricity Market (SEM) in April 2006. These areas were the types of retail trading (for below de minimis non-participant generation) supported by the SEM metered data aggregation processes for wholesale settlement, and the timelines of data provision to suppliers and the processes for querying that data.

1. *Generator Unit, Supplier Unit, and Participation*

This section of the paper describes, for information, some of the background concepts used in this paper. They are derived from the definitions in Version 1.0 of the Trading and Settlement Code¹ (T&SC). Where there is any difference between the definitions in the T&SC and their descriptions here, the definitions in the T&SC take precedence.

When a company or individual (“entity”) that owns a licensed generator becomes a Participant in the SEM in order to sell its electricity into the pool, it must sign up to the T&SC. The T&SC sets out the contractual responsibilities of that entity so that it can sell its energy to the pool. A Participant’s generator is represented by a Generator Unit in the SEM. A Generator Unit’s half-hourly energy volumes (and other required data) are provided to the Single Market Operator (SMO) by the organisation responsible for the collection of that data. Each Generator Unit is represented by one set of metered data representing its half-hourly energy output, one set of data representing its half-hourly availability, and (where appropriate) one set of data representing its half-hourly dispatch or control instructions.

A Generator Unit, therefore, is defined by each individual stream of settlement data provided to the SMO. For example, a windfarm that comprises of 20 turbines but is metered in aggregate is a single Generator Unit under the Code. Another example of note is a combined cycle gas turbine (CCGT). Depending on the legacy metering, availability and dispatch arrangements of the CCGT, it may be represented by a series of Generator Units or a single Generator Unit.

Supplier Units are the representations of energy consumption in the SEM. An entity must have a supply licence to act as a Supplier Unit under the T&SC. Like entities that are Participants and register Generator Units, the entity that is a

¹ AIP/SEM/10/06. <http://www.allislandproject.org/2006/AIP-SEM-10-06.pdf>

Participant and registers a Supplier Unit to buy energy from the pool also has contractual obligations, such as the posting of credit cover. A supplier which is represented by a Supplier Unit in SEM will have out-of-market supply contracts with final energy consumers. The retail market operator (RMO) will facilitate the aggregation of these energy consumers' metered consumption, assigning their consumption to the correct Supplier Unit. The RMO will then provide the SMO with a single total aggregation per Supplier Unit ("wholesale data aggregation"). The SMO uses this data to appropriately invoice the supplier.

If an entity with a generator does not participate in the SEM, it must have a physical out-of-market contract (called "physical contracts" here) with another entity if it is to receive payment for the energy it does not use. The counterparty to the physical contract in turn must participate in the SEM to gain payment for any energy not consumed. The counterparty to the physical contract can participate in the SEM as a Supplier Unit and have the energy purchased from the generator netted off its wholesale metered demand volume².

2. *Types of Retail Trading for Non-Participant Generation in SEM*

A generator that has a Maximum Export Capacity (defined on a connection agreement basis, or a site basis where a connection agreement does not exist) of less than 10MW may choose to participate or not participate in the SEM. This de minimis threshold is currently described under paragraphs 2.48 to 2.51 of Version 1.0 of the T&SC.

In the event that a generator chooses not to participate in the pool, if the generator is to receive money for its generated energy, it must have a physical contract in place with a counterparty that does participate in the pool. In the case where that counterparty is a Supplier Unit, the counterparty would be compensated for this energy it has purchased from the generator by a reduction in the volume it is required to buy from the pool. In effect, the non-participant generation contracted to a supplier would be netted, i.e. subtracted, from the demand assigned to a Supplier Unit for each Trading Period by the RMO (either ESB Networks or NIE Transmission & Distribution) before sending to the SMO for settlement.

² Alternatively, the counterparty to the physical contract can be nominated as an Intermediary by the entity that owns the generator. To do this, the entity that owns the generator must become a Party to the T&SC and be bound by a reduced set of contractual requirements, while the counterparty to the physical contract takes on all responsibilities of that Generator Unit under the T&SC. The function of the Intermediary is outside the scope of this paper.

In the case of the Public Electricity Supply (PES) businesses (ESB Customer Supply and NIE Supply) where the PES businesses are not globally aggregated by the RMO, this calculation is performed implicitly by the settlement by differencing under the T&SC.

As there can be conceivably many different types of physical contract, there are time and cost implications on the RMO to implement IT systems to facilitate these contracts. Within the context of SEM, it is important that these RMO IT systems are in place for market trials in late March 2007. The RMO IT systems are already being examined to scope out the design changes to facilitate the new data delivery timeline requirements of SEM (see Figures 1 to 3 at the end of this paper). These IT system design changes must facilitate physical contracts for non-participant generation so that all non-participant generators have the opportunity to sell their energy to the supplier of their choice. These design changes must be cost-effective, and add minimal risk to SEM go-live.

The first part of this draft decision paper therefore relates to the proposed minimum diversity of retail contracts that the SEM requires the wholesale data aggregation to facilitate. For clarity, this consultation is not about limiting the possible options for non-market trading in either jurisdiction – it is examining what types of data aggregation process are required so that the T&SC rules can, at a minimum, capture de minimis generation export appropriately for Supplier Unit settlement.

3. *Timing of Metered Data Delivery to Suppliers and Query Processes*

Version 1.0 of the T&SC specified that Supplier Unit metered data would be delivered to the SMO one Working Day after the Billing Period (weekly) or Capacity Period (monthly) as appropriate. The SMO would then produce and issue Indicative Energy and Capacity Settlement Statements with these data that same day. The supplier that registered the Supplier Unit would have three working days to query this data before invoices were issued for energy and capacity charges respectively.

Two developments around this end of Billing Period (or Capacity Period) send of supplier data to the SMO then arose. Firstly, there was representation and feedback from suppliers indicating that a faster timeframe for the delivery of data than on a Billing Period basis, i.e. faster than weekly, was required. Metered data would be required earlier to facilitate timely understanding of their market

position, and to maximise time to query perceived material errors before invoicing.

Secondly, the SEM Implementation Team indicated that the vendors of central market systems had indicated that the calculation of settlement for the entire market within a few hours of receipt of all data one Working Day after the Billing Period or Capacity Period would be greatly increase the IT requirements, and therefore cost of the central market systems. Furthermore, most market settlement systems are designed to operate using at least Working Day processes, and that metered data was required for the updating of Credit Cover for Supplier Units under the T&SC. Therefore, the SEM Implementation Team requested that the SEM settlement should operate on a Working Day basis. As this request simultaneously addressed suppliers' concerns above, the Regulatory Authorities have subsequently allowed development work to continue on the assumption that calculation of SEM settlement statements would operate on a Working Day basis.

This means that the RMO is now required to provide data for each Supplier Unit to the SMO one Working Day after each Settlement Day, with Indicative Settlement Statements being calculated later that same Working Day. The RMO is also required to provide updated metered data for each Supplier Unit three Working Days later. Initial Settlement Statements are calculated and issues based on this updated data. Invoices at the end of the Billing Period would be based on the summation of all Initial Settlement Statements throughout the week.

Note that the timelines for Indicative Capacity Settlement Statements and Initial Capacity Settlements Statements will be subject to the outcome of the Capacity Payment Mechanism design workstream. Therefore, this paper will restrict its scope to the timing of data required for the issue of Energy Settlement Statements, under the assumption that the timeline of provision of metered data for Energy Settlement will be adequate for the settlement of the Capacity Payment Mechanism.

Overall, therefore, the second part of this draft decision is related to the changes arising from a move from a weekly end-of-Billing Period data delivery to a Working Day process. In particular this new business process timeline has impact on description of the Data Query process in the T&SC. It also has major implications for the estimation, aggregation and communication of data by the RMO.

4. *Requirements for Metering*

Please note that it is an assumption of this paper that metered data is available for all generation and demand on a half-hourly basis to the relevant metered data provider (System Operator or RMO). This consultation does not cover generator metering and profiling requirements. This will be the subject of further jurisdictional consultation with regard to microgeneration. Please note that it will be a T&SC requirement, however, that for all entities that can affect price, i.e. dispatchable Generator Units and Trading Site Supplier Units, that interval metering will be required.

III. DRAFT DECISIONS

At the SEM Workshop on 12 April 2006, various specific proposals were presented related to the two areas under discussion here. Proposals I to III relate to the proposed facilitation of physical contracts by SEM aggregation, and Proposal IV & V relates to the market timeline around the query process. These proposals are discussed in turn, feedback from the two industry respondents described, and the draft decisions are presented in turn with their rationale. Finally, impacts on the T&SC described.

1. *Proposal I. Is Partial SEM Participation Possible for a Below De Minimis Generator?*

(a) Proposal

In Version 1.0 of the T&SC, it is stated that *all* Generator Units covered by a connection agreement which in total has an above de minimis ($\geq 10\text{MW}$) Maximum Export Capacity must participate in the SEM (paragraph 2.48). Note that a connection agreement may cover several Generator Units. It is not explicit in the T&SC in paragraph 2.50, however, whether *all* Generator Units covered by a connection agreement which has a below de minimis Maximum Export Capacity must participate in the SEM if only one of those Generator Units proposes to participate. Proposal I, therefore, clarifies that either all Generator Units covered by a connection agreement must totally participate in the SEM if one Generator Unit under the connection agreement chooses to participate.

(b) Industry Feedback

All industry participants' responses agreed that all Generator Units covered by a connection agreement with a below de minimis Maximum Export Capacity should either participate as a group in the SEM, i.e. sell all their energy to the SEM, or not participate as a group in the SEM, i.e. sell all their energy in the retail market to supplier(s).

(c) Draft Decision and Rationale

The Regulatory Authorities draft decision is that if a generator has a connection agreement with a Maximum Export Capacity less than the de minimis level of 10MW, then if any Generator Unit on that site wishes to sell any of its energy to the SEM, then it must sell all energy from all Generator Units covered by that connection agreement to the SEM.

Where non-regularised legacy arrangements exist where a generator sells some of its energy in a physical contract to a supplier and trades the remainder in the existing interim market, this generator will have to either extend its existing contracts to cover the totality of its production and not participate in the Pool (or have an Intermediary participate on their behalf), or participate fully in the pool and change its physical contract to a contract for difference.

From a policy perspective, this draft decision is in line with the concept of a gross mandatory pool around which the SEM is based. Furthermore, it does not force any generator that is not currently participating in the interim markets to become a participant in SEM. The requirements on below de minimis Participants are the same as for above de minimis Participation: all long-term physical bilateral contracts will need to be renegotiated to financial contracts for difference. Furthermore, this draft decision minimises the requirement for change to the retail market design driven by the wholesale market and places low risk for SEM implementation timeframes.

(d) Impacts on T&SC

To facilitate this draft decision, this will require a change or addition to the wording of paragraph 2.50 of Version 1.0 of the T&SC. Furthermore, the paragraphs around the concept of de minimis will be subject to legal review, particularly around the area where extensions to windfarms may be covered by more than one connection agreement, but sharing metering.

2. *Proposal II. What Type of Retail Trading should be Facilitated for Non-Participant Generation?*

(a) Proposal

Following on from the draft decision from Proposal I, a non-participant generator must therefore sell all its output to one or more suppliers under physical contract(s). Once a generator is physically contracted with more than one supplier, this would impact the RMO as it must administer the volumes of all these retails trades on an ongoing basis.

Therefore, to avoid this added cost on the RMO's business, it was proposed that a non-participant generator can only sell its energy to one supplier and only one supplier. This supplier can be any supplier in the market, including a PES business.

If any generator wishes to sell to more than one supplier, they must participate in the SEM and sell all their energy into the pool, while arranging a set of financial contracts with as many suppliers as they wish. These contracts for differences with suppliers will be backed off with pool revenues from the SEM.

(b) Industry Feedback

One respondent agreed with the above proposal. One respondent, however, disagreed with the proposal. The disagreeing respondent noted that certain generators do exist (in Ireland) that have physical contracts for a portion of their generator's output with one supplier, and sell the remainder of their generated power outside of the market to a different supplier. This respondent argued that the facility to sell to two suppliers should be retained. Furthermore, the respondent indicated that the retail facility to sell to two suppliers would remove processing burden from the central market systems as they would not have to process generators who sell to two suppliers under long-term contracts as participant Generator Units.

(c) Draft Decision and Rationale

The draft decision of the Regulatory Authorities is to continue with Proposal II, i.e. that a generator can only sell to one supplier, but to temper that decision with the maintenance of legacy arrangements which are in place at this time. For example, if any existing non-regularised legacy arrangements exist for specific generators, then these non-regularised arrangements may remain in place for those specific generators alone.

Note that a "non-regularised legacy arrangement" is defined here as a highly manual, individually negotiated process whereby the RMO has set up special calculations for unusual situations. An example of such an unusual situation would be where a windfarm has a contract for the entirety of its output with a supplier, but, again, adds a few extra turbines on the same site at a later time that are not covered by that contract. This time, the energy produced by those extra turbines is subsequently physically contracted to a different supplier.

In the future, if such a scenario occurs, and a generator wishes to sell to more than one supplier, then that generator will have to participate in the market as a Generator Unit, receive SEM pool revenue for all its energy, and create financial contracts for difference with the two suppliers to mimic the financial effect of several physical contracts.

Note that this proposed SEM metered data aggregation requirement arising from this draft decision is only a minimum requirement of the retail market's data aggregation for wholesale settlement in SEM. If the retail market currently has further *regularised* methods of attributing electricity from a single non-participant generator among suppliers, e.g. a process whereby an autoproducer can sell export to one supplier and buy import from another, this draft decision does not request or authorise the removal of such trading arrangements. Furthermore, this draft SEM decision does not prohibit the retail market in either jurisdiction creating further regularised methods of within-jurisdiction retail trading to be facilitated by jurisdictional SEM wholesale metered data aggregation, insofar as changes to the wholesale aggregation do not add risk to the implementation of the above minimum requirements for SEM go-live, and costs are approved as appropriate.

This SEM metered data aggregation requirement is so that the wholesale market can appropriately account for all energy in the pool. It also allows all suppliers to compete with each-other for non-participant generation's energy, while having minimum impact on SEM implementation costs and timelines. It allows development of the central market systems to take account of the possibility of negative supplier volumes (see below). Note that in the event of global aggregation of a PES business, any IT implementation of non-regularised legacy arrangements will have to be re-examined at that time to ensure that they can still function successfully with a RMO aggregated PES energy volume. During this examination, these proposed minimum requirements will also be revisited.

(d) Impacts on T&SC

There are no major impacts on the T&SC, but the text below explains the consequences of this draft decision within the framework of the existing rules.

A result of this decision is that a Supplier Unit's volume is calculated by summing all the demand associated with that supplier, and subtracting on a half-hourly basis all generation contracted to that supplier. Using this convention, therefore, it is possible that a Supplier Unit's volume might be negative during a particular half-hour, i.e. the total demand contracted to a Supplier Unit might be less than the total generation contracted to that Supplier Unit.

Under Version 1.0 of the T&SC, this means that the supplier will be settled as negative demand. This in turn will lead, under the current development of the central market systems, to a supplier receiving an invoice for a negative amount of money, i.e. a credit note. Payment should issue with every credit note. The

T&SC will explicitly recognise this fact under an Agreed Procedure or by extra information in the Code as appropriate. In the event of negative demand (on average) over the course of a Billing Period, the algebra for the Variable Market Operator Charge (paragraph 6.97 of Version 1.0 of the T&SC) calculates the charge as zero. Therefore, no Supplier Unit will ever be paid for participating in the SEM.

Imperfection Charges are currently charged on a Supplier Unit's Loss-Adjusted Net Demand on a Trading Period basis (paragraph 4.126 of Version 1.0 of the T&SC). With negative demand, this Imperfection Charge will become an Imperfections payment. Therefore, the calculation of the Imperfections Charge will require a minor adjustment (in line with the algebra in the Variable Market Operator Charge) so that this Imperfections payment does not occur.

Note that a below de minimis generator has therefore two potential options for accounting for its export in wholesale SEM volumes. It can participate in the market as a Generator Unit, and receive explicit energy payments at generator SMP, capacity payments, constraint payments, and pay Market Charges and post Credit Cover as a generator³. Alternatively, the owner of the generator may also apply for a supply licence, participate in the SEM as a Supplier Unit, and have a physical contract with that Supplier Unit for the totality of the generator's output. In this scenario, the Supplier Unit will receive explicit energy payments at demand SMP (which includes a capacity element), pay Market Charges and post Credit Cover as a Supplier Unit, but receive no constraint payments. Therefore, after analysis of likely cash flow, there may be material differences in revenue for a generator depending on the method of registration.

3. *Proposal III. Will Wheeling be Maintained as a Form of Retail Trading in SEM?*

(a) Proposal

Following on from the draft decision from Proposal II, wheeling⁴, as a legacy regularised trading arrangement, will continue in Northern Ireland.

(b) Industry Feedback

Neither respondent had any comment on wheeling being maintained within the Northern Ireland metered data aggregation under SEM.

³ See paragraph 6.141 of Version 1.0 of the T&SC.

⁴ For a high-level description of wheeling, please see:

<http://www.nie.co.uk/nieenergy/marketopening/pdfs/wheelingextracts20056.pdf>

(c) Draft Decision and Rationale

Wheeling will continue to be required past SEM go-live for Northern Ireland, and the wheeling volumes should be captured in wholesale market settlement in the Supplier Unit metered data aggregation process as soon as possible, ideally being reflected in the Indicative and Initial metered data. At a minimum, the changed wholesale volumes arising from wheeling should be captured monthly, and be available for the next resettlement of the SEM.

If the wheeling calculation is performed as currently (monthly), this will lead the wheeling generator receiving payment for its full output during the first Billing Period Settlement under the SEM, and the generator's wheeled customers' suppliers receiving an invoice based on those customers' full consumption. The wheeling generator and the wheeled customers' volumes will be corrected for the next resettlement which happens four months later. This leads to a temporary imbalance in the retail (monthly) and wholesale (weekly) positions for the wheeling generator, which benefits the wheeling generator.

As the volume of energy of this benefit to wheeling generators is small, only lasts between Initial SEM Settlement and the first SEM Resettlement, and the technical difficulty of implementation of daily wheeling calculations is not resolved at this time, monthly calculation of wheeling volumes is deemed to be acceptable to the Regulatory Authorities. If it is determined, however, that the wheeling calculations can be readily performed daily in time for Initial SEM Settlement, the Regulatory Authorities are in favour of this option.

As wheeling is a legacy arrangement only in Northern Ireland, it will not be implemented in Ireland.

(d) Impacts on T&SC

This draft decision will have no impact on the current Version 1.0 of the T&SC.

4. *Proposals IV and V. Timing of Metered Data Flow, Data Query Processes, and Resettlement Timeframes*

(a) Proposal

Version 1.0 of the T&SC specified a weekly metered data file send for energy settlement and a monthly metered data file send for capacity payment settlement. Following feedback from participants, the SEM Implementation Team, and the Metered Data Providers, these file sends have been replaced by a daily file send process to facilitate updating of credit cover, setting of SMP, and

a more stable market processing workload. This has a number of knock-on effects to the settlement timetable and levels of estimation of the metered data for settlement under SEM. Note that throughout, Indicative and Initial Settlement Statements are calculated and released for information purposes on a Working Day basis, and are “rolled up” into the weekly Invoice which continues to be issued five Working Days after the end of the Billing Period.

- Estimation Levels: Ensuring that metered data is available by 14:00hrs on the next day will mean that meters which are not read during this time due to technical reasons outside of the control of the meter reader, will be estimated. The MRSO gave a proposal whereby all data not involved in setting SMP would be estimated for the Indicative data and replaced with actual meter reads as available for the Initial Settlement Statement calculations. This proposal effectively removes the value of the Data Query process (where the Data Query Period is between Indicative and Initial Settlement calculations) to suppliers.
- Estimated Data at the end of the Optimisation Time Horizon: Both the Indicative and Initial EPUS runs are over the Optimisation Time Horizon set at 30 hours. With a daily file send, the Indicative SMP from the Indicative EPUS will be based on 24 hours of Indicative metered data and availabilities, and 6 hours of SMO forecasts for the next Trading Day. For the Initial EPUS run, the Initial SMP will be based on 24 hours of Initial metered data and Price-Maker Generator Unit availabilities, and 6 hours of Indicative metered data and Price-Maker Generator Unit availabilities.
- Release of Indicative Settlement information: In line with the daily metered file send, information will now be available to suppliers on a daily basis, not in a batch at the end of the week.
- Data Query Process for all Participants: Previously, the Data Query Period lasted three days, starting from the release of the weekly Indicative Settlement Statement one day after the end of the Billing Period, and ending four days after the Billing Period at 1700hrs. As the weekly information flow in the SEM is proposed to be changed to a daily process, this Data Query Period definition was re-examined. The Regulatory Authorities made a proposal at the workshop on the 12 April 2006 that the Data Query Period for a given day would last from provision of the day’s Indicative Settlement Statement to Participants, to four Working Days later at 1700hrs. (Data Queries must be raised by a Participant within the Data

Query Period in respect of any data item on a Settlement Statement and must be resolved within 10 Working Days. Settlement Queries can be raised at any time, but need only be resolved within one Month of receipt of the Settlement Query by the SMO).

- Resettlement timeframes: Under Version 1.0 of the T&SC, the resettlements occur four and 13 months later for each Billing Period and Capacity Period. Moving to a daily file send, rather than a weekly file send means that the levels of estimation in the Settlement Days earlier on in the week will be higher than previously anticipated when the four and 13 month resettlement were proposed. Therefore, there may be a requirement to re-evaluate these resettlement timeframes. Proposals were put forward whether it would be appropriate to move these resettlements to different months, or whether to add an extra resettlement.
- Working Day (Midnight to midnight, excluding weekends and bank holidays), Trading Day (6am to 6am, everyday), Settlement Day (midnight to midnight, everyday): Given one of the reasons for delivery of daily data to the SMO was a more regular business process around the setting of SMP, updating credit cover, and running settlements, there needs to be a careful review of the utilisation of these days for all market participants.

(b) Industry Feedback

One participant felt that the Regulatory Authorities' proposal regarding a daily file send and Data Query Period was suitable and would provide data in a timely manner to both generators and suppliers. Another participant was in favour of the MRSO's proposal that the Indicative Settlement Data would be based purely on estimated data, but required that the quicker timelines of the Data Query could be maintained after the release of the Initial Settlement Statement, limited to the event of a gross material error. This respondent also requested that an extra resettlement was added, and the resettlement periods moved to 3, 6, and 13 months to facilitate suppliers to minimise their errors.

Subsequent to the industry feedback, the MRSO has also proposed the rationale behind the requirement for the Indicative Settlement Data for Supplier Units at all. This is discussed further below.

(c) Draft Decision and Rationale

Overall, the move to a daily file send, and the operational requirements of the SMO and Metered Data Providers require reasonable changes to the T&SC. In effect these changes are made to

- Provide faster, more regular information to Participants on their market position;
- Regularise the SMO and Metered Data Providers' daily processes; and
- Provide adequate information for the operation of the T&SC.

The following draft decision is based on these three principles.

Price Making Metered Data Provided by Settlement Day

Metered Data, organised by Settlement Day, will be provided to the SMO by the Metered Data Providers for all Generator Units and Interconnectors which can affect the target market quantity to be met in EPUS, or the calculation of SMP. This (Indicative) metered data must be provided to the SMO by 14:00hrs the next Settlement Day⁵ immediately after the Trading Day for which SMP is to be calculated. This data will always be provided in good time for the production of the Indicative Settlement Statement due for 17:00hrs on the Working Day after the Settlement Day in question. This price-setting metered data is made available to the market participants by the SMO shortly after the SMO receives this data. SMP is set on a Trading Day basis, and is made available to the market when calculated. This price-setting metered data must be provided again, updated as appropriate (to Initial metered data), three Settlement Days⁶ after the Trading Day to the SMO. This data will always be provided in good time for the production of the Initial Settlement Statement due for 12:00hrs five Working Days after the Settlement Day in question. This updated price-setting metered data is made available to the market participants by the SMO shortly after the SMO receives this data. A Settlement day is every calendar day, irrespective of weekends or bank holidays.

Note that there are two changes here to the end-of-Billing Period process described in the T&SC, beyond the move to a daily process. Firstly, price-making metered data is provided on a Settlement Day basis rather than a

⁵ If the Settlement Day is a Saturday, the Indicative Data must be Submitted to the SMO by 14:00hrs on the next Sunday

⁶ If the Settlement Day is a Saturday, the Initial Data must be Submitted to the SMO by 14:00hrs on (Sunday D+1, Monday D+2, Tuesday D+3) the next Tuesday by 14:00hrs

Trading Day. Secondly, Initial price-making metered data and Price-Maker Generator Unit availabilities are required three Settlement Days after the Trading Day in question. This has impacts on the levels of estimation of the EPUS runs which set Indicative and Initial SMP. The Indicative SMP will be based on 18 hours Indicative metered data and Price-Maker Generator Unit availabilities, and 12 hours of SMO forecasts, while the Initial SMP is based on purely Initial Data, i.e. data of the same quality. These changes were made to ensure that Initial SMP was set over the Optimisation Time Horizon using purely Initial data, rather than a combination of Initial Data for the first 24 hours, and 6 hours of Indicative Data thereafter.

Non-Price Making Metered Data Provided by Week Day

Metered Data, organised by Settlement Day, will be provided to the SMO by the Metered Data Providers for all other meters that are not required for the calculation of SMP. This non-price setting metered data must be provided by 14:00hrs the Week Day⁷ after the Settlement Day to the SMO. This data will always be provided in good time for the production of the Indicative Settlement Statement due for 17:00hrs on the Working Day after the Settlement Day in question. This non-price setting metered data is made available to Participants by the SMO systems shortly after the SMO receives this data. Week Days are Monday through to Friday inclusive, including bank holidays. This non-price setting metered data must be provided again, updated as appropriate, four Week Days⁸ after the Settlement Day to the SMO. This data will always be provided in good time for the production of the Initial Settlement Statement due for 12:00hrs five Working Days after the Settlement Day in question. The non-price setting data is required on a Week Day to regularise the retail Metered Data Providers' operations, and to regularise the operation of the SMO⁹.

It is noted that the Regulatory Authorities prefer an aggregation of individual meter readings to inform the Indicative Settlement for non-price setting metered data. Nonetheless, as per the MRSO's suggestion (above), but subject to two conditions, the non-price setting metered data provided for the Indicative Settlement may be estimated as a half-hourly total aggregated total volume in a

⁷ If the Settlement Day is Friday, the next Week Day is always the next Monday, irrespective of Bank Holidays.

⁸ If the Settlement Day is Saturday, the Initial Data must be Submitted to the SMO by 14:00hrs on (Monday D+1, Tuesday D+2, Wednesday D+3, Thursday D+4) the next Thursday by 14:00hrs

⁹ If data required for settlement was sent the next Working Day, for example, this means that after the Easter Weekend where there are two bank holidays, the data for Thursday, Friday, Saturday, Sunday, and Monday would have to be delivered on the Tuesday, causing a large processing load for the Metered Data Providers and the SMO and a consequent cost of IT systems.

single step by the RMO. The two conditions are as follows: there must be demonstrable technical impasse on the delivery of an aggregation of individually estimated meter reads, and this must be subject to a legal review of the T&SC requirement of the Metered Data Providers to submit accurate information to the SMO.

The use of estimated total volumes (rather than the aggregation of individual meter estimates and meter readings to a total volume) is considered acceptable given the SMO's use of the Indicative non-price setting metered data: the updating of credit cover (which in itself relies on an element of forecasting), and the early estimation (to be updated three working days later) of the Supplier's volume. Note that as a point of principle, once a Settlement Day is complete, the Metered Data Providers and System Operators become responsible for that Settlement Day's data (metered energy and Generator Unit availabilities) at that time. Therefore, the SMO should only estimate metered data for the purposes of updating credit cover or calculating Indicative SMP for those hours within the Settlement Day that is currently yet to come to an end.

It is noted that if suppliers have no use for the Indicative Settlement Statements, then under a T&SC change request, the possibility of removing Indicative Settlement Statements from the market entirely, would save implementation expense in the market systems. Feedback is sought from suppliers on this possibility in the *Settlement Queries for Suppliers* section below.

Resettlement Data

Resettlement Data will also be provided on a daily basis, for the Trading Day four and 13 months previously. Resettlement Data is not expected for price-making Metered Data, except on an ad-hoc basis when a Data Query is in effect. Resettlement Data will be provided for non-price setting metered data on a Week Day basis on an agreed timetable between the RMO and SMO that reflects a four month and a 13 month delay respectively. The process for deriving this timetable will be documented in Agreed Procedure 4 of the T&SC. See the Section on Resettlement Statements below.

Participant Market Processes of Settlement, Credit Cover, and Queries on Working Day

Please note that the above two paragraphs describe Trading Day and Week Day provision of metered data to the SMO. The Participant interface timetables for invoicing, updating of credit cover, and querying this information all operate on a Working Day basis. This means that the direct link described in Version 1.0 of

the T&SC between data provision to the SMO, Indicative Settlement, the Data Query Period, followed by Initial Settlement has now be removed.

Credit Cover

Credit cover will continue to be updated on a Working Day basis. The SMO will use the best data available to the SMO on whatever day it arrived under the timetables above to calculate the credit cover.

Indicative Settlement Statements

Daily Indicative Settlement Statements for energy will be issued one Working Day after the Settlement Day. Therefore, as price-setting metered data arrive on a Settlement Day basis, and non-price setting meter data arrive on a Week Day basis, these Daily Indicative Settlement Statements may be calculated in advance of the Working Day of their issue.

Data Query for Generators

For each Indicative Settlement Statement, Participants with Generator Units will have three Working Days to raise a Data Query on the information contained within the Generator Unit Indicative Settlement Statement. Each Settlement Day has its own three-Working-Day Data Query Period. The Data Query Period begins with the Working Day Issue of the Indicative Settlement Statement for that Settlement Day. A consequence of this is that a Data Query can only be raised on a Working Day. This is broadly in line with the current T&SC. The Data Query process is now restricted to Generator Unit data only. Please see the Settlement Queries for Suppliers section next for further discussion of this draft decision.

Please note that a Participant with a Generator Unit that has raised a Data Query with respect to metered data on its Indicative Settlement Statement may have access to the metered data for the Initial Settlement before the Initial Settlement Statement is released. This is because of the disjoint between the Settlement Day send of price-setting metered data, and the Working Day Data Query period. For the avoidance of doubt, therefore, a Data Query that is raised during the Data Query Period *after* the provision of metered data for the Initial Settlement will trigger the full Data Query process, will require the *latest* version of the data that was issued to the SMO to be re-evaluated, will be required to be dealt with under the Data Query timelines, and will be capable of changing SMP.

Finally, the move to sending generators' metered data to the SMO for settlement on the calendar days of D+1 and D+3 has an impact on existing System

Operator (as Metered Data Provider) processes for the data validation processes. Typically, this data validation process allows a generator to agree with the System Operator on a set of data that is sent to the SMO. Therefore, the allowed timelines for validation in these System Operator validation processes will need to be re-evaluated given that the System Operators, as Metered Data Providers, will be required to send Initial Generator Unit metered data on D+3. The interaction between the SMO data validation process (on a Working Day) and the System Operator data validation process, i.e. what happens when a generator agrees the data with the System Operator, but subsequently queries it with the SMO, will be the subject of further work and negotiation over the coming months with generators.

Settlement Queries for Suppliers

The possibility that the Indicative Settlement Statement for Supplier Units may be based on a gross estimation by the RMO (and indeed the likely level of estimation of individual meter reads if a gross estimation is not used) means that the meaning of the Data Query Period has less meaning for suppliers, as the Data Query Period before the release of the Initial Settlement Statement. Therefore, the following changes to the query process are proposed under this draft decision.

Firstly, the Data Query Process (with the requirement to turn a response around within 10 Working Days) will be restricted to Generator Unit Settlement Statements only. The rationale for this is that only the Generator Units can affect SMP, and the Data Query Process is intimately linked to the early recalculation of SMP.

Secondly, Participants (suppliers and generators) may continue to raise Settlement Queries as under Version 1.0 of the T&SC with respect to data items in the Initial Settlement Statements. Settlement Queries may take up to one Month to resolve. This may lead to a cash-flow difficulty for a supplier in the event of gross material error. Therefore, in addition to the provisions of Version 1.0 of the T&SC, a Participant may now designate a Settlement Query as urgent in the event of perceived gross material error. The SMO must agree that the identified error is urgent. This urgent Settlement Query regarding a particular Settlement Day's data must be raised, starting at the release of the Initial Settlement Statement, within three Working Days of the issue of the Initial Settlement Statement for that Settlement Day by 12.00hrs, i.e. before the Invoice Due Date for that Settlement Day. The SMO is to use reasonable endeavours to resolve an Urgent Settlement Query before the Invoice Due Date, and urgent

Settlement Query must be resolved within 10 Working Days of the Settlement Query being received by the SMO, i.e. under the same timelines for Data Queries. An urgent Settlement Query can be raised by Generator Units and Supplier Units. Note that Settlement Queries, urgent or not, can never result in SMP being recalculated. Only Data Queries and Settlement Disputes can reopen SMP.

This suite of changes (including fully estimated Indicative Settlement Statement volumes for Supplier Units, or equivalently for this analysis here, removing Indicative Settlement Statements altogether) has the following impact on suppliers. Suppliers' first opportunity to query real data arises on the release of the Indicative Settlement Statement. This means that the Indicative Settlement Statement for the last day of the Billing Period will be released only one day before the Invoice for the Billing Period, leaving suppliers very little time to query data before it is invoiced. The supplier will, under T&SC timelines, will have to pay that invoice irrespective of any Urgent Settlement Query raised in respect of the data on that invoice, on the Invoice Due Date which is three Working Days after receipt of the Invoice. As the Urgent Settlement Query Period may be raised up to three Working Days after invoice, this places the supplier under a cash-flow risk while the Urgent Settlement Query is being resolved. Furthermore, Interest may be charged by the Market Operator on any late payment, and credit cover can be drawn down once a payment is late. Therefore, the removal of the Data Query Period for suppliers is directly linked to the estimation or data in (or complete removal of) Indicative Settlement Statements for Supplier Units. The Regulatory Authorities are particularly interested in suppliers' views on these related draft decisions, noting that maintaining full indicative aggregation for Supplier Units and the Data Query process (as in Version 1.0 of the T&SC) mitigates this risk somewhat, but does not entirely remove it.

Initial Settlement Statements

For each Settlement Day, a Daily Initial Settlement Statement will be issued five Working Days after that Settlement Day at 12.00hrs. Again, as with the Indicative Settlement Statement, the data contained within the Daily Initial Settlement Statement may have been actually sent to the SMO several Settlement Days previously. The Data Query Period for each Settlement Day ends three Working Days after the issue of the relevant Indicative Settlement Statement. The Urgent Settlement Query begins with the issue of the Initial Settlement Statement and ends three Working Days later.

End of Billing Period Process

Five Working Days at the end of each Billing Period, the relevant Initial Settlement Statements will be collated for that Billing Period, and issued that Working Day at 12.00hrs as invoices to Supplier Units and credit notes to Generator Units.

Resettlement Statements

At the Rules Review Group in late November of 2005, resettlements were scheduled to occur at four and 13 months. Certain arguments have been made to change the resettlement timeframes:

- Meter reading processes work off a three monthly cycle (or multiple thereof), so a resettlement at six months should contain a meter read for almost all meters, whereas the four month resettlement will not;
- While accuracy of meter readings is important, the speed of obtaining the correct cash flow is important for a supplier, and therefore the resettlement timeframe should be brought earlier;
- Extra resettlements, front-loaded towards an earlier resettlement would facilitate suppliers to have accurate wholesale volumes; and
- Extra resettlements would unnecessarily increase the administration and processing required by all parties when the need for these resettlements is not fully justified.

Without detailed analyses being available to weight the relative strength of each of the above arguments, and given that the Regulatory Authorities have previously consulted on the four and 13 month resettlement timeframes through the Rules Review Groups and consultation on Version 0.10 of the T&SC, no change to the resettlement timeframes is proposed at this time. Note, however, that all IT systems are capable of running ad hoc resettlements so if a material need can be demonstrated to change this draft decision after SEM go-live, there should be no major IT technical impediment to making this change as part of the ongoing market modifications procedures.

Summary Timeline

Figures 1, 2, and 3 summarises the processes arising from the above draft decisions. These timelines are subject to slight alteration after discussion around the use of Bank Holidays for IT system maintenance. Overall, however, the

Settlement Day send of price-setting data, and the Week Day send of non-price setting data is proposed not to change.

(d) Impacts on T&SC

This draft decision will have several impacts on the current drafting of the T&SC. A change control request is being prepared which covers off the impacts as described above.

Note that the Billing Period is defined in Figures 1, 2 and 3 as starting on a Tuesday and ending on a Monday (as defined in the glossary of the T&SC). In paragraph 6.10 of the T&SC, however, the Billing Period is defined as starting on a Sunday and ending on a Saturday. This contradiction will be resolved.

Figure 1. Indicative Data Provision, Indicative SMP Setting, Indicative Statements

Mon (BH) indicates that the Monday is a Bank Holiday and is not a Working Day. Blue processes are every Calendar Day, green processes are every Week Day, and orange processes are every Working Day. The first row in black represents Calendar Days, and the first column indicates the time by which processes are to be completed on the Calendar Day in top row. All data are in Settlement Day blocks (midnight to midnight), except for the setting of Indicative SMP, which is aligned with the Trading Day. 18-hours of Indicative Price-Setting Data are available for the calculation of Indicative SMP. 12 hours of data (the last six hours of the Trading Day, plus the remaining further 6 hours in the Optimisation Time Horizon) in the Indicative Price Setting are estimated by the SMO.

Calendar Day	Tue1	Wed1	Thu1	Fri1	Sat1	Sun1	Mon1 (BH)	Tue2	Wed2	Thu2	Fri2	Sat2	Sun2	Mon2	Tue3	Wed3	Thu3	Fri3	Sat3	Sun3	Mon3	
Indicative Price-Setting Data by 14:00hrs		Tue1	Wed1	Thu1	Fri1	Sat1	Sun1	Mon1	Tue2	Wed2	Thu2	Fri2	Sat2	Sun2	Mon2	Mon2	Tue3	Wed3	Thu3	Fri3	Sat3	Sun3
Indicative SMP set by 16:00hrs		Tue1 6am to Wed1 6am	Wed1 6am to Thu1 6am	Thu1 6am to Fri1 6am	Fri1 6am to Sat1 6am	Sat1 6am to Sun1 6am	Sun1 6am to Mon1 6am	Mon1 6am to Tue2 6am	Tue2 6am to Wed2 6am	Wed2 6am to Thu2 6am	Thu2 6am to Fri2 6am	Fri2 6am to Sat2 6am	Sat2 6am to Sun2 6am	Sun2 6am to Mon2 6am	Mon2 6am to Tue3 6am	Tue3 6am to Wed3 6am	Wed3 6am to Thu2 6am	Thu3 6am to Fri3 6am	Fri3 6am to Sat3 6am	Sat3 6am to Sun3 6am	Sun3 6am to Mon3 6am	
Indicative Non-Price Setting Data by 14:00hrs		Tue1	Wed1	Thu1			Fri1 Sat1 Sun1	Mon1	Tue2	Wed2	Thu2			Fri2 Sat2 Sun2	Mon2	Tue3	Wed3	Thu3			Fri3 Sat3 Sun3	
Indicative Statements by 17:00hrs		Tue1	Wed1	Thu1				Fri1 Sat1 Sun1 Mon1	Tue2	Wed2	Thu2			Fri2 Sat2 Sun2	Mon2	Tue3	Wed3	Thu3			Fri3 Sat3 Sun3	

Figure 2. Initial Data Provision, Initial SMP Setting, Initial Settlement Statements, Invoices and Credit Notes

Mon (BH) indicates that the Monday is a Bank Holiday and is not a Working Day. Blue processes are every Calendar Day, green processes are every Week Day, orange processes are every Working Day, and red processes are every Billing Week. The first row in black represents Calendar Days, and the first column indicates the time by which processes are to be completed on the Calendar Day in top row. All data are in Settlement Day blocks (midnight to midnight), except for the setting of Initial SMP, which is aligned with the Trading Day. All 30-hours of Initial Price-Setting Data are available for the calculation of Initial SMP.

Calendar Day	Tue1	Wed1	Thu1	Fri1	Sat1	Sun1	Mon1 (BH)	Tue2	Wed2	Thu2	Fri2	Sat2	Sun2	Mon2	Tue3	Wed3	Thu3	Fri3	Sat3	Sun3	Mon3	
Initial Price-Setting Data by 14:00hrs				Tue1	Wed1	Thu1	Fri1	Sat1	Sun1	Mon1	Tue2	Wed2	Thu2	Fri2	Sat2	Sun2	Mon2	Tue3	Wed3	Thu3	Fri3	
Initial SMP set by 16:00hrs				Tue1 6am to Wed1 6am	Wed1 6am to Thu1 6am	Thu1 6am to Fri1 6am		Fri1 6am to Sat1 6am	Sat1 6am to Sun1 6am	Mon1 6am to Tue2 6am	Tue2 6am to Wed2 6am	Wed2 6am to Thu2 6am	Thu2 6am to Fri2 6am		Fri2 6am to Sat2 6am	Sat2 6am to Sun2 6am	Sun2 6am to Mon2 6am	Mon2 6am to Tue3 6am	Tue3 6am to Wed3 6am	Wed3 6am to Thu2 6am	Thu3 6am to Fri3 6am	
Initial Non-Price Setting Data by 14:00hrs							Tue1	Wed1	Thu1			Fri1 Sat1 Sun1	Mon1	Tue2	Wed2	Thu2				Fri2 Sat2 Sun2	Mon2	Tue3
Initial Settlement Statements by 12:00hrs								Tue1	Wed1	Thu1				Fri1 Sat1 Sun1 Mon1	Tue2	Wed2	Thu2	Fri2				Sat2 Sun2 Mon2
Invoices and Credit Notes by 12:00hrs														For Week 1								For Week 2

Figure 3. Indicative Settlement Statements, Initial Settlement Statements, Data Queries, Urgent Settlement Queries

Mon (BH) indicates that the Monday is a Bank Holiday and is not a Working Day. Orange processes are every Working Day. The first row in black represents Calendar Days, and the first column indicates the time by which processes are to be completed on the Calendar Day in top row. All data are in Settlement Day blocks (midnight to midnight). Note that several Settlement days' data can be queried on the same day, meaning that suppliers and generators need not run a Working Day data examination process. Note that the query periods (Data Query and Urgent Settlement Query) are always three Working Days in length, not counting the day when the Settlement Statement is issued. For the Data Query period, therefore, a Data Query on an Indicative Settlement Statement may be raised after the delivery of Initial Data for the Settlement Day for which the Settlement Statement pertains. Query Periods are in linked boxes.

Calendar Day	Tue1	Wed1	Thu1	Fri1	Sat1	Sun1	Mon1 (BH)	Tue2	Wed2	Thu2	Fri2	Sat2	Sun2	Mon2	Tue3	Wed3	Thu3	Fri3	Sat3	Sun3	Mon3
Indicative Statements by 17:00hrs		Tue1	Wed1	Thu1				Fri1 Sat1 Sun1 Mon1	Tue2	Wed2	Thu2			Fri2 Sat2 Sun2	Mon2	Tue3	Wed3	Thu3			Fri3 Sat3 Sun3
Initial Settlement Statements by 1200hrs								Tue1	Wed1	Thu1				Fri1 Sat1 Sun1 Mon1	Tue2	Wed2	Thu2	Fri2			Sat2 Sun2 Mon2
Data Query Period for Generator Unit Settlement Statements (ends 17:00hrs)	Tue1	Tue1 Wed1	Tue1 Wed1 Thu1					Tue1 Wed1 Thu1 Fri1 Sat1 Sun1 Mon1	Wed1 Thu1 Fri1 Sat1 Sun1 Mon1 Tue2 Wed2	Thu1 Fri1 Sat1 Sun1 Mon1 Tue2 Wed2	Fri1 Sat1 Sun1 Mon1 Tue2 Wed2			Tue2 Wed2 Thu2 Fri2 Sat2 Sun2	Wed2 Thu2 Fri2 Sat2 Sun2 Mon2 Tue3 Wed3	Thu2 Fri2 Sat2 Sun2 Mon2 Tue3 Wed3	Fri2 Sat2 Sun2 Mon2 Tue3 Wed3	Mon2 Tue3 Wed3			Wed3 Thu3 Fri3 Sat3 Sun3
Urgent Settlement Query Process (ends 17:00hrs)								Tue1	Tue1 Wed1	Tue1 Wed1 Thu1				Tue1 Wed1 Thu1 Fri1 Sat1 Sun1 Mon1	Wed1 Thu1 Fri1 Sat1 Sun1 Mon1 Tue2 Wed2	Thu1 Fri1 Sat1 Sun1 Mon1 Tue2 Wed2	Fri1 Sat1 Sun1 Mon1 Tue2 Wed2	Mon1 Tue2 Wed2			Tue2 Wed2 Thu2 Fri2 Sat2 Sun2 Mon2

