Utility Regulator
ELECTRICITY GAS WATER

Consultation on Global Settlement in the SEM for Northern Ireland

Decision Paper

06 July 2012

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Purpose of this Paper

The purpose of this paper is to report on the responses to the consultation on the changes that are required to implement Global Settlements in the Single Electricity Market (SEM) for Northern Ireland (the Northern jurisdiction) and give the Utility Regulator's views regarding those responses. It is also to inform stakeholders about the Utility Regulator's decisions made as part of the consultation process to implement Global Settlements.

The consultation paper 'Consultation on Global Settlement in the SEM for Northern Ireland' was published on the 2nd April 2012 and invited responses by 5pm on 28th May 2012.

The Utility Regulator consulted on two separate changes that are required to be completed before Global Settlements can be implemented and the subsequent review process for the allocation of residual volumes.

These are:

- the proportion of the residual volume for each trading period that will be allocated to suppliers' meter volumes derived from different types of meters i.e. half hourly (or interval) meters and non half hourly meters (or non interval);
- if and how often the apportionment of residual volumes should be reviewed; and
- the changes required to Power NI's Supply Licence.

Background

During the implementation of the SEM, it was agreed by the Regulatory Authorities (RAs) to transition away from the market arrangements where the supply incumbent, or former Public Electricity Supplier (PES), is the sole supplier in a jurisdiction to whom the cost of settlement balancing, via the Error Supply Unit (ESU), is assigned. This was deemed a SEM 'Day Two' issue and later would be addressed through the adoption of Global Settlement. Global Settlement refers to the explicit aggregation of the consumption of each supplier's customer base.

Settlement balancing will still be required for Global Settlement but be explicitly calculated and appropriately apportioned across all suppliers in the market. The settlement balancing residual volumes occur due to the mismatch between suppliers' trading point generation purchases and their deemed aggregated customers' consumption volumes.

Competition in the retail market is the key driver for the introduction of Global Settlement. When the SEM was launched, both former PES suppliers were dominant in their respective markets and, as such, the ESU comprised of the PES customer demand and the whole jurisdictional residual volume. This was considered acceptable as the residual consumption was spread across a large customer base. With the development of competition in the business and domestic markets the erosion of the PES market share means that it is no longer appropriate that Power NI's customers bear the risk associated with ESU function.

Global Settlement will provide a wholesale settlement process that is the same for all electricity suppliers and will result in the ESU registered to Power NI being discontinued. Global Settlement requires every energised meter point connected to the distribution network to be accounted for in the same manner.

NIE, as common services provider and SEM Northern Jurisdictional Distribution Meter Data Provider (MDP), has an existing obligation to perform the collection and validation of all metered data from every energised meter point. Presently this metered data is aggregated into Supplier Units for each independent supplier. This is not required for Power NI who is presently responsible for the remaining jurisdictional residual volumes that are all allocated, by the SEM wholesale trading arrangements, to their ESU.

The current process is commonly referred to as 'settlement by differences' as the ESU ensures that metered generation and suppliers' demand are always in balance. The ESU will be deregistered at the start of Global Settlement and the new arrangements[1] are now required to ensure that calculated total metered generation and total metered demand are always in balance.

For each trading period of the wholesale electricity market, suppliers purchase electricity from the gross mandatory pool to meet the demand of their customer base. The quantity of electricity available in the pool (supply) must match the electricity being drawn from it (demand). However, due to the estimation processes associated with these quantities, these figures generally do not align at the trading point.

This mismatch, the residual volume, is accounted for in settlement by including it in the quantity of electricity that Power NI, as the historic Public Electricity Supplier (PES), must purchase. Any additional costs or benefits are allocated to Power NI and passed through to their customer base. With increasing levels of competition, the number of Power NI customers is reducing and a more equitable allocation is required with all suppliers being treated the same.

Therefore to allow for an even playing field, Global Settlement needs to be adopted. This is where the calculated demand for all suppliers is explicitly aggregated and the remaining unaccounted for generation or demand volumes are then smeared across all suppliers. This is to be done on the basis of suppliers overall share of demand and their customers' metering type.

[1] As developed by the implementation of the TSC Modification 34.

From the start of Global Settlement Power NI customers' metered demand will need to be aggregated into one or more Supplier Units in the same manner as independent suppliers. This will normally create a mismatch between total metered generation and total metered demand (the residual volume) that will need to be reconciled within the wholesale trading arrangements.

This reconciliation, as mentioned above, will be achieved by the residual volume being smeared across all suppliers in accordance with their proportion of demand and their customers metering type - that is whether their customers are interval or non-interval metered. This allocation to interval and non-interval will be conducted in accordance with an allocation factor, the Residual Meter Volume Interval Proportion (RMVIP). This factor will determine the proportion of the residual volume to be allocated to interval metered volumes. The purpose of the consultation was to seek comment on the proposed value of the allocation factor, and the associated changes to Power NI's supply licence which presently imposes an obligation on Power NI to be the registrant of the jurisdictional ESU.

Responses to the consultation

The Utility Regulator has received 5 responses to the Consultation Paper. Submissions were received from the following organisations:
Airtricity,
Electric Ireland,
Energia,
NIE, and
Power NI.

The consultation paper 'Consultation on Global Settlement in the SEM for Northern Ireland' asked respondents to comment on the following questions:

Allocation of Residual volumes
Q1. *Respondents are invited to comment on the proposal to attribute the Residual Volume solely to non-interval metered demand? Are you in favour of the proposal? If not, what value of RMVIP should be selected? Outline reasons for agreement or disagreement.*

Respondents Comments
All five respondents responded to the proposal of a zero value for the RMVIP. Two respondents indicated that the proposal was consistent with the value set in GB and ROI. Four respondents agreed with the Utility Regulator's proposal that all the residual metered volumes should be allocated to non-interval meters.

One respondent considered that an 80:20 allocation would be a reasonable approach based on the inherent inaccuracies of the transmission and distribution line loss factors together with estimation and theft. They recognise that the materiality of these factors cannot be quantified but have suggested that they would be accounted for in their proposed apportionment.

Most respondents recognised that the main cause of the residual volumes was derived from non-interval meter profiling error. NIE, as the Meter Data Provider indicated that meter errors, malfunctions and fraud are particularly low in the half hour (interval) metered customer base. Profiling errors are also absent from the settlement of half hour metered data.

Reviewing the RMVIP

Q2. *Do you agree that the RMVIP should be kept under review? If so, how often do you think it should be reviewed? Outline reasons for agreement or disagreement.*

Respondents Comments

All respondents agreed that the RMVIP should be kept under review.

One respondent considered at least two full data periods would be necessary to establish any sensible comparator sets and on that basis suggested a two-year period as the minimum review period.

Another respondent suggested that based on the work undertaken to date and the findings of the T&SC Working Group on the ‘drivers’ of residual volume, it may be somewhat superfluous to undertake periodic reviews and if a decision was made to apply periodic review, these should be no more frequent than annually.

A third respondent agreed that the RMVIP should be kept under review. They indicated that the residual consumption would seem to be mainly a result of the profiling error but considered a two-yearly review as appropriate. They thought it would be prudent to further investigate the contribution of the various error components once global aggregation is in place and sufficient data becomes available.

NIE considered it is important to review the RMVIP annually, as the customer base continues to change. They indicated a preference for adopting a harmonised process with RoI.

Power NI licence changes

Respondents were also asked to provide commentary on the proposed licence changes for Power NI. The licence changes are a prerequisite for the implementation of Global Settlement for Northern Ireland as it will be essential that Power NI first deregisters the ESU registered with the SEM market operator. This change is in relation to Condition 52 in which paragraphs 2 and 3 that state:

2. The Licensee shall, in accordance with the provisions of the Single Electricity Market Trading and Settlement Code, register the Error Supplier Unit for Northern Ireland.

3. In this Condition:
***Error Supplier Unit** - has the meaning given to it in the Single Electricity Market Trading and Settlement Code.*

This requirement is only included in the Power NI Supply Licence and, if not amended, would be inconsistent with their TSC obligations when Global Settlements is implemented.

The Utility Regulator proposed to commence a licence modification in accordance with article 14(2) of the electricity (Northern Ireland) order 1992 (the "**order**") to the electricity supply licence held by NIE Energy Limited under article 10(1)(c) of the order.

The proposed licence change will delete Paragraphs 2 and 3 from Condition 52 but leave the following obligation in place:

1 The Licensee shall become a party to the Single Electricity Market Trading and Settlement Code, and shall at all times remain a party to and comply with the Code, insofar as it is applicable to the Licensee in its capacity as an Electricity Supplier.

Respondents Comments

Four respondents were overtly supportive of the proposed Power NI licence changes and the fifth did not provide any commentary. One respondent confirmed a similar modification has been approved with respect to the Electric Ireland Licence in the Republic of Ireland.

The Utility Regulator’s Conclusions

All respondents provided support for the thrust of Utility Regulator’s proposals and, with the exception of one respondent, were in agreement with all the consultation’s proposals. The one respondent indicated that 20% of the residual volume should be allocated to interval meters but provided no objective data to support this apportionment.

The Utility Regulator recognises the arguments put forward regarding some proportion of the residual volume being apportioned to interval meters as they relate to transmission and distribution loss adjustment factors but considers the proposed arbitrary allocation of the residual volumes is not the best answer. The Utility Regulator has already asked NIE to review distribution loss adjustment factors and the new Enduring Solution systems are capable of allocating distribution loss adjustment factors on a trading period basis.

Transmission loss adjustment factors are already under annual review. Empirical analysis to date would indicate that transmission losses are not a big contributor to trading period residual volumes and should not be accounted for in the setting of the RMVIP.

Interval meters typically have a low level of metered data estimation (typically less than 0.5%) and a higher accuracy that most non interval meters. Also as these meters are read remotely every 24 hours illegal abstraction should be identified at an early stage. This assertion is supported in the NIE response.

After careful consideration of all the arguments put forward by respondents the Utility Regulator has concluded no changes are required to the proposed value of the RMVIP detailed in the consultation document.

None of the respondents thought the RMVIP value needed to be reviewed more than once a year with some indicating a longer timescale or doubting the need for reviews altogether. One respondent thought the review process should be coordinated with the ROI annual review of their jurisdictional RMVIP.

There was no dissent about the changes to the Power NI Licence as respondents seemed to accept them as consequential to the introduction of Global Settlement and removing the obligation on Power NI to be registrant of the ESU.

The date for the introduction of Global Settlements was provisionally set as September 2012 but this was subject to the NIE Enduring Solution systems being successfully commissioned without any major data quality issues. NIE delivered the Enduring Solution project on 21 May 2012 and have confirmed that the data quality is fit for purpose. Therefore Global Settlements can start on the 11 September 2012 the planned date.

Decisions by the Utility Regulator

Following the careful consideration of all respondents' views and opinions the Utility Regulator has concluded:

- Global Settlements will commence on the 11 September 2012 as planned.
- The Power NI Licence changes as proposed in the consultation document will now be implemented as indicated in the consultation document. These modifications will take effect from 11 September 2012.
- The residual volume will be allocated solely to demand with non-interval metering. This will be conducted by setting the weighting factor, the RMVIP, to zero. This decision follows the precedence set in both GB and ROI.
- The introduction of the Global Settlement arrangements will make available data relating to the residual volumes. It is proposed to keep the magnitude of the value under review on an annual basis. However it is proposed that the RMVIP will not be changed unless detailed analysis indicates that a change is required.