Harmonised

Other System Charges

2014/2015

Recommendations Paper

9th July 2014

EIRGRID

SONI
System Operator for Northern Ireland

1. EXECUTIVE SUMMARY

For the upcoming tariff period running from the 1st October 2014 to the 30th September 2015, the TSOs published a consultation paper on 11th April 2014 outlining a number of proposals. The TSOs received comments from six (6) respondents on this consultation paper and having reviewed the responses the TSOs are now making a number of recommendations to the RAs based on these comments.

1. In this year's Annual Tariff Consultation the TSOs are proposing to retain the OSC rates approved for the 2013/2014 tariff year adjusting for inflation at forecast rate[1] of 1.5% for the tariff year 2014/2015.

2. The Trip Charge methodology is recommended to be left as it is and not to proceed with a consultation to review it at this time. The review of the methodology should be visited again once the DS3: Enhanced Performance Monitoring System is put in place as part of the DS3 project.

3. The GPI charge for Secondary Fuel declarations is proposed not to be initiated this year pending completion of the necessary changes in respect of fuel security, including fuel switching arrangements, in Northern Ireland.

4. The implementation of GPIs for non-conventional generation is to be considered and future OSC consultations may propose implementation of OSC charges to these Users.

[1] Based on a number of sources (e.g. ESRI forecasts (Ireland) and Office for Budget Responsibility (UK) forecasts for 2014 and 2015) it is reasonable in the view of the TSOs, to assume a forecast blended inflation rate of 1.5% for the 2014-2015 period.

Abbreviations

AS	Ancillary Services
DBC	Dispatch Balancing Costs
DETI	Department of Enterprise, Trade & Investment
GPI	Generator Performance Incentive
HAS	Harmonised Ancillary Services
NI	Northern Ireland
NI FSC	Northern Ireland Fuel Security Code
OSC	Other System Charges
RA	Regulatory Authorities
SCADA	Supervisory Control and Data Acquisition
SEM	Single Electricity Market
SEMO	Single Electricity Market Operator
TSC	Trading and Settlement Code
TSO	Transmission System Operator

2. INTRODUCTION

The purpose of this paper is to make recommendations to the Regulatory Authorities (RAs) in Ireland and Northern Ireland, based on responses received by the Transmission System Operators (TSOs) on the Harmonised Other System Charges Consultation paper[2] for the RAs' approval. The TSOs consult on an annual basis regarding changes to the OSC rates and the introduction of any new OSC. On the 11th April 2014 the TSOs in Ireland and Northern Ireland published the annual consultation paper for the tariff year 1st October 2014 to 30th September 2015.

The OSC consultation paper proposed to retain the OSC rates approved for the 2013/2014 tariff year adjusting for inflation at forecast rate[3] of 1.5% for the tariff year 2014/2015. The TSOs proposed that the Trip Charge methodology is left as it is and not to proceed with the consultation to review it at this time. The review of the methodology should be visited again once the DS3: Enhanced Performance Monitoring System is put in place as part of the DS3 project which will log any trips or load drops over a certain threshold (including WFPS).

In the consultation paper the TSOs proposed that the GPI charge for Secondary Fuel declarations is not to be initiated this coming tariff year pending completion of the necessary changes in respect of fuel security, including fuel switching arrangements, in Northern Ireland. The TSOs also proposed that the implementation of GPIs for Demand Side Units (DSUs), Aggregated Generator Units (AGUs) and Windfarm Power Stations (WFPSs) is to be considered and future OSC consultations may propose implementation of OSC charges to these Users.

Following a review of comments on the OSC consultation paper the TSOs are now making these recommendations to the RAs. The TSOs will then publish a revised Statement of Charges and Other System Charges Methodology Statement for the 2014/2015 tariff period.

[2] "Harmonised Other System Charges; Consultation" 11th April 2014, available at www.soni.ltd.uk and www.EirGrid.com

[3] Based on a number of sources (e.g. ESRI forecasts (Ireland) and Office for Budget Responsibility (UK) forecasts for 2014 and 2015) it is reasonable in the view of the TSOs, to assume a forecast blended inflation rate of 1.5% for the 2014-2015 period.

The TSOs received responses from the following parties:

Party	**Abbreviation**
AES Kilroot Power Ltd & AES Ballylumford Ltd	AES
Energia	Energia
ESB Generation & Wholesale Markets	ESB GWM
Irish Wind Energy Association	IWEA
NIE Energy Limited Power Procurement Business	PPB
SSE Renewables	SSE

The responses can be found attached to this recommendations paper.

3. EXISTING OSC DEVELOPMENTS

3.1 SHORT NOTICE RE-DECLARATIONS

3.1.1 Introduction

Short Notice Declarations (SND) are made by generators to reflect the change in availability of committed plant or unscheduled outage of dispatched plant. The SND charges are intended to incentivise behaviour that enhances system security and reduces dispatch balancing costs by providing the TSOs with notice to re-dispatch plant at least cost. The TSOs believe that the charge is appropriate and did not propose to change the tariff for this upcoming tariff year other than increasing in line with the assumed inflation rate.

The TSOs published their intention to make a clarification with regards to the SND Minimum Threshold, currently set at 15MW. There is ambiguity over how a SND equal to the SND Minimum Threshold is dealt with in the settlement system were either a charge would result, or instead the MW reduction is used in the sum of the SND reductions, within the specific time window for chargeable SNDs.

At present, in the published Other System Charges Methodology Statement, located on the TSOs' websites[4], it states 'to discourage multiple SNDs below the minimum threshold in quick succession, re-declarations below the SND Minimum Threshold within the Time Window for Chargeable SNDs are subject to an SND charge, provided the sum of the SND reductions are above the SND Minimum Threshold. In such circumstances, the SND reduction is the summation of the smaller SND reductions and set to no notice'. The Methodology Statement does not state what happens when the SND is equal to the SND Minimum Threshold.

The Methodology Statement will be revised and published with the following change:

'To discourage multiple SNDs below the minimum threshold in quick succession, re-declarations below the SND Minimum Threshold within the Time Window for Chargeable SNDs are subject to an SND charge, provided the sum of the SND reductions are equal to or above the SND Minimum Threshold. In such circumstances, the SND reduction is the summation of the smaller SND reductions and set to no notice.

3.1.2 Respondents' Comments

Two comments were received (AES and SSE) in relation to the clarification to the SND Minimum Threshold and both were in favour of it.

3.1.3 TSOs' Recommendation

The TSOs recommend that no change is made to the SND charge rate for 2014/2015 tariff year other than increasing in line with the assumed inflation rate.

[4] http://www.soni.ltd.uk/media/documents/Operations/Ancillary-Services/OSC%20Methodology%20Statement%202011-2012.pdf and http://www.eirgrid.com/media/2010%202011%20Other%20System%20Charges%20Methodology%20Statement.pdf

The TSOs will publish the revised Methodology Statement in line with the details above.

3.2 TRIP CHARGE

3.2.1 Introduction

In response to the participants views from last year's OSC consultation paper the TSOs stated in their recommendations paper[5] to maintain the current Trip Charge threshold at 100 MW in the 2013/2014 tariff year. Furthermore, the TSOs recommended a separate consultation to review the Trip Charge methodology.

Following a review of the analysis of the available data over the last 3 years the TSOs, in conjunction with the RAs, recommended that the Trip Charge methodology is left as it is and not proceed with the consultation to review it at this time. The review of the methodology should be visited again once the DS3: Enhanced Performance Monitoring System is put in place as part of the DS3 project which will log any trips or load drops over a certain threshold (including WFPS).

3.2.2 Respondents' Comments

Two comments were received (AES and SSE) in relation to the postponement of the Trip charge methodology review. Both were in favour of the postponement.

3.2.3 TSOs' Response

The TSOs welcome the participants' views in respect of the proposed postponement of the Trip charge methodology consultation.

3.2.4 TSOs' Recommendations

The TSOs recommend that the Trip Charge methodology is left as it is and not to proceed with the consultation to review it at this time. The review of the methodology should be visited again once the DS3: Enhanced Performance Monitoring System is put in place as part of the DS3 project which will log any trips or load drops over a certain threshold (including WFPS).

[5] SEM-13-043b Other System Charges recommendations paper 2013-14

3.4 LATE SYNCHRONISATION CHARGE

3.5.1 Introduction

Modifications to the joint sections of the Northern Ireland and Ireland Grid Codes in respect of late synchronisation windows (required because of the pending Failure to Follow Notice to Synchronise Instruction modifications) were discussed at the February 2012 meeting of the Joint Grid Code Panel. At this meeting it was agreed that a consultation paper be developed which would set out the modification proposal to change the late synchronisation window from 55 minutes to 15 minutes. The change was consulted upon from 23rd May 2012 until 28th June 2012 and on the 28th September 2012 the TSOs issued a joint response to the consultation, which was published on the EirGrid and SONI websites[6]. In this response the TSOs addressed the points raised by the respondents to the consultation and sought approval from the RAs for the specified changes to the Grid Codes in Northern Ireland and Ireland.

In May 2013 the RAs wrote to the TSOs requesting they consider a number of specific points and discuss them with the Grid Code Review Panels prior to resubmitting the modification proposals.

The TSOs have since then carried out an analysis of the impact on costs of the modifications and presented results at the Joint Grid Code Review Panel meeting on 12 February 2014.

The results presented were inconclusive. The TSOs intend to produce a further report to send to the RAs in the near future.

If the modification approval is granted the change will be implemented accordingly.

3.4.2 Respondents' Comments

Two comments were received (AES and SSE) in relation to the late synchronisation charge. All respondents opposed the change in the late synchronisation window.

SSE also stated that it was their understanding that the analysis provided to the RAs also included a recommendation that there would be no benefit to further studies being carried out and that it was not clear why the modification was still being progressed, given that there is already a significant incentive to synchronise at the appointed time.

3.4.3 TSOs' Response

The TSO studies referred to are in response to the RAs question as to whether the proposed modification was likely to have any impact on SMP. The report on these studies is currently being finalised, and will be sent to the RAs shortly. There is no conclusive evidence that the implementation of the Fail to Synchronise Modification MPID 223 will or will not adversely impact on the costs to the consumer and SMP. Hence the TSOs propose MPID 223 for the original reasons given.

Generation Units failing to synchronise is a real problem for the TSOs. If a Unit fails to synchronise at its Synchronising Time, within 15 minutes the TSO needs to decide how to deal with this shortage of

[6] www.eirgrid.com and www.soni.ltd.uk

generation, which may involve the scheduling of alternative unit(s) and/or increasing imports/decreasing exports etc.

With increasing levels of non-synchronous generation displacing conventional generation sources over the last number of years the TSOs are often required to desynchronise a number of conventional units at night and then resynchronise these the following morning. This is generally referred to as two shifting. These units failing to synchronise poses a real scheduling and dispatch issue for the TSOs as it typically results in less efficient and more expensive generation units to be dispatched on at short notice. This poses increased security of supply risk which impacts on the quality, and possibly cost, to the final consumer.

3.4.4 TSOs' Recommendations

No recommendation is being given as part of this consultation.

4. NEW OTHER SYSTEM CHARGES (OSC)

4.1 SECONDARY FUEL GPI

4.1.1 Introduction

In the 2011/2012 tariff year, the TSOs proposed a new GPI relating to a generating unit's declared secondary fuel capability. Since then, the TSOs understand that the fuel security arrangements in Northern Ireland have advanced but are not at the stage yet where a GPI can be applied to all units on the island. Should this GPI be introduced, the TSOs will review the methodology of the GPI as proposed in the 2011-2012 tariff year consultation.

The Utility Regulator in Northern Ireland and the Department of Enterprise, Trade and Investment (DETI) in Northern Ireland have asked SONI to implement Fuel Switching Agreements with certain generators and DETI are also currently redrafting the NI Fuel Security Code. It is expected that these arrangements will be in place by Q4 2014.

It is also anticipated that costs incurred through the Fuel Switching Agreements will be recovered by SONI through the SSS tariff in accordance with Annex1 of its licence.

Therefore, the GPI charge for Secondary Fuel declarations is proposed not to be initiated this year pending completion of the necessary changes in respect of fuel security, including fuel switching arrangements, in Northern Ireland.

As part of the 2014-15 consultation the TSO's sought participant's views on the merits of this recommendation.

4.1.2 Respondents' Comments

Two comments were received (ESB GWM and AES) in relation to a secondary fuel GPI and both did not support the introduction of this GPI.

One respondent (ESB GWM) commented that insufficient information on the GPI proposal has been given and therefore they do not support the introduction of this GPI. Many factors and issues should be carefully considered before such a GPI is introduced. For example, secondary fuel requirements are not harmonised across the island, nor is the requirement universal for all generator types. Furthermore there are no corresponding Ancillary Service Payments for the provision of this service. It would seem unfair to put in place a system that could penalise generators that offer this benefit and contribute to overall system security, whereas generators that do not provide this service do not face penalties. Consideration should also be given to the fact that secondary fuel operation is an emergency service only.

One respondent (AES) commented that the proposed GPI is premature and unnecessary and that it should be withdrawn until after the full implementation of the Fuel Security Code and Fuel Switching Arrangements. AES would welcome clarification from the TSOs as to which part of the Grid Code this charge relates to.

AES would also welcome clarification from the TSOs as to the differences between Dual Fuel/Backup Fuel/Secondary Fuel and how each fit into the proposed methodology.

4.1.3 TSOs' Response

The TSOs welcome participants' views on this proposal. As stated in the consultation paper the GPI methodology will be reviewed and consulted upon prior to implementation and once the necessary legislation is in place.

The TSOs would like to highlight that CC13 of the NI Grid Code details the requirement to comply with the Fuel Security Code. The TSOs would also like to state that Generator Performance Incentives (GPIs) are designed to incentivise compliance with respect to the Grid Code and are not linked with Ancillary Service Agreements.

4.1.4 TSOs' Recommendations

As the fuel security arrangements in Northern Ireland are not at a stage yet where a GPI can be applied to all units on the island the TSOs recommend that the introduction of this GPI is postponed until the next tariff year and pending a methodology consultation.

4.2 Introduction of new GPIs

4.2.1 Introduction

The TSOs are investigating the introduction of a number of new GPIs which will help align the existing GPIs for wind farms, DSUs and AGUs to conventional units. The metrics for performance monitoring for DSUs is currently being covered through a Grid Code Working group involving the TSOs, DSOs and Industry. The outcome of this working group will help inform any future GPI design.

In relation to wind farms the TSOs are investigating the merit of introducing GPIs for Design Minimum Operating Level (DMOL), Reactive Power and Reserve as follows:

- The DMOL GPI will be a trading period based charge on the deviation from the Grid Code/Derogated requirement;
- The Reactive Power GPI will be a trading period based charge will be based on the deviation from the Grid Code/Derogated requirement;
- The Reserve GPI charge will be an event based charge based on the difference between the Grid Code/Derogated expected and the actual achieved.

In the consultation paper the TSOs welcomed participants' views on the merits of these investigations.

DSUs are a defined User under the Grid Codes. The TSOs are considering future GPIs for DSUs but not in this tariff year.

4.2.2 Respondents' Comments

Four comments were received (AES, Energia, IWEA and ESB GWM) in relation to the introduction of new GPIs.

One respondent (AES) believe it to be appropriate that new GPIs are being assessed by the TSO, regarding this change in generation.

Three respondents (Energia, IWEA and ESB GWM) commented that they wished to see further industry engagement be undertaken by the TSOs before any further processes or standards are put in place.

Two respondents (Energia and IWEA) commented that GPIs for wind farms should not be contemplated without first introducing ancillary service contracts for wind farms. They also requested clarity on whether the intention is to consider GPIs for transmission or distribution connected wind farms and clarity on the intentions in relation to retrospective applications – would the TSOs (or DSO if applicable) be supportive of derogation applications.

Two respondents (IWEA and ESB GWM) commented that if there is no significant impact on the system then there is no need for a penal incentive. Consideration should be given to tolerance limits where no penalty will be applied. They also stated that the focus of the performance monitoring of wind should be on the performance over time, rather than concentrating efforts on discreet points and events, which can be very time consuming and add little value.

One respondent (IWEA) commented that the provision of information to generators is important so they can monitor their own performance and prevent issues before they arise. All events should be logged. IWEA also stated that the TSO expectation of wind farm performance needs to be realistic, for example changes to wind conditions when a dispatch signal is sent may impact the response and needs to be taken into consideration.

IWEA remarked that some of the problems seem to arise out of loss of signals and suggested that an additional relay could be included in the RTU to confirm the signal has gone through.

IWEA requested clarity regarding a wind generator not being dispatched down for the provision of reserve (unless there was a contract in place for doing so) and that reserve would only be available from wind farms in the case where it is dispatched down for other reasons. They stated that a penalty should only be applied in the case where there is a reward for providing the reserve through an ancillary service payment.

One respondent commented (ESB GWM) that they are of the opinion that all customers that are connected to the Transmission System should be treated as fairly and equally as possible. However, to maintain a commercial equilibrium if certain types of customers are prohibited from earning revenues from Ancillary Services the same customers should also be exempt from GPI's associated with these services. Based on this wind farms without any Ancillary Services Contract in place should not be considered for GPI's.

ESB GWM stated that on the basis that renewable subsidies are based on metered generation and considering the doubt over future market compensation during curtailment the operation of wind farms on the frequency response curve to enable reserve provision must be considered carefully. They questioned if the utilisation of a wind farm in frequency response mode be treated similar to a generator being constrained off or will the remuneration for the reserve be structured in an

appropriate way so as to compensate effectively. They commented that whatever the solution it is imperative that the wind farm is kept financially whole.

4.2.3 TSOs' Response

Generator Performance Incentives (GPIs) are designed to incentivise compliance with respect to the Grid Code and are not linked with Ancillary Service Agreements. The existing GPIs are mainly declaration based i.e. the difference between the actual tested capability and the expected capability from the Grid Code however there are a number of event based GPIs. A full list of the GPIs and the events in which they are levied can be found in the OSC Methodology Statement[7].

Currently GPIs are only levied on conventional generating units. As discussed in the consultation paper the TSOs believe it is appropriate to consider applying these existing GPIs for reserve, reactive power and DMOL[8] on windfarms who are not compliant with the Grid Codes. Based on the 2020 renewable policy targets in Ireland and Northern Ireland windfarms may at times be the major energy source on the all island power system. The TSOs therefore need the minimum Grid Code required performance from windfarms in order to operate the transmission system in the most safe, secure, efficient and economical manner. The introduction of the existing GPIs in February 2010 has clearly shown the improvement in Grid Code performance from the conventional generation portfolio. The TSOs would therefore like to introduce a number of GPIs to ensure they continue to meet the minimum requirements set out in the Grid Codes. In response to specific questions raised:

- Currently GPIs are levied through the TUoS Agreements in both Ireland and Northern Ireland, therefore GPIs would be liable for both a transmission and distribution connected windfarm if they are subject to the terms of a TUoS Agreement;
- Ancillary Services Agreements for reactive power from some transmission connected windfarms have been in place for a number of years. There is currently no developed mechanism in place for payment of reserve to windfarms. This has not been identified as an issue over the previous number of years due to the priority dispatch nature of wind to date. Under the DS3 programme[9] the TSOs are looking at system services required to operate the power system with increasing levels of non-synchronous sources of energy. In this a

[7] http://www.soni.ltd.uk/media/documents/Operations/Ancillary-Services/OSC%20Methodology%20Statement%202011-2012.pdf and http://www.eirgrid.com/media/2010%202011%20Other%20System%20Charges%20Methodology%20Statement.pdf

[8] Designed Minimum Operating Level is the minimum active power output of a WFPS where all turbines are generating electricity and are capable of ramping at the specified ramp rate. The existing GPI for Minimum Load is the minimum stable output of a generating unit at which they can provide System Services. As Minimum Load is not a defined term for a WFPS the TSOs considered DMOL as an appropriate alternative.

[9] The deployment of renewable energy sources (RES) in the electricity sector has been increasing steadily in recent years and Ireland and Northern Ireland are committed to increasing the level of renewable electricity consumption to 40% by 2020. The EirGrid Group is at the forefront of this change and is working with all industry stakeholders to facilitate these ambitious renewable electricity targets. To help manage the operation of the power system over the coming years a programme of work has been established entitled "Delivering a Secure Sustainable Electricity System (DS3)". Further information can be found at www.eirgrid.com/operations/ds3

technology neutral services scheme is proposed. However before new technologies can avail of these DS3 services when approved by the SEM Committee they will need to demonstrate that they can physical and reliably provide these reserves. In that sense the TSOs through the DS3 Frequency Control and Performance Monitoring work streams will, over the coming months, be tentatively monitoring windfarm performance, particularly when curtailed, to frequency events. Through this process it is envisaged that windfarms will be able to prove their capability in this regard.

- The proposed GPIs would be mainly declaration based GPIs determined through Operational Certificate Testing. These technical capabilities will then be monitored through ongoing performance monitoring to ensure the windfarm can still achieve these over the required operational range;
- Any new GPIs need to be consulted with Industry on the actual design of the charge. The Regulatory Authorities would then have a final decision on whether the proposed GPI is implemented and the date from which the GPI should become effective (these are only levied going forward). The GPI would be benchmarked against the Grid Code requirement or the derogated requirement if a derogation has been approved by the Regulatory Authorities.
- Performance Monitoring of windfarms against actual event based requirements is the subject of the DS3: Enhanced Performance Monitoring & Testing work stream and is outside the scope of these discussions on GPIs for windfarms. Furthermore the DS3: Proposed New System Services work stream is looking at Agreements for a number of new products and these will be paid based on actual performance. This performance metric is also outside of the scope of these discussions on GPIs for windfarms.

4.2.4 TSOs' Recommendations

No recommendation is being given as part of this consultation.

4.3 ROCOF GPI

4.3.1 Introduction

It is the TSOs' expectation to introduce a ROCOF GPI in line with the publication of the RA's ROCOF decision paper.

4.3.2 Respondents' Comments

One comment was received (PPB). PPB believes that any proposal in relation to ROCOF related charges should be carried out at the same time as the consultation on the final DS3 commercial proposals (including the ROCOF ancillary service), in order that Grid Code Users and Ancillary Service providers can assess the full impact of the proposals.

4.3.3 TSOs' Response

The TSO welcome the participant's views. The introduction of a ROCOF GPI will be included as part of the OSC consultation for tariff year 2015/2016.

4.3.4 TSOs' Recommendations

No recommendation is being given as part of this consultation.

5. PROPOSED RATES

In the Harmonised Ancillary Services Rates and Other System Charges Decision paper for 2011/2012, the SEM Committee was satisfied that the exchange rate methodology is aligned to that utilised in the SEM. The TSOs will use the same methodology for 2014/2015. The 5-day average rate will be based on the last five working days of July in order that the HAS & OSC GBP rates are available to be published in the NI Statement of Payment and Charges in August 2014.

The OSC rates assume a forecast blended inflation rate[10] of 1.5% for the 2014/2015 period.

5.1 TRIP CHARGES

The following tables propose the Trip Charges and Constants for the 2014/2015 tariff year. As seen in Table 5.1 and Table 5.2 there is no change to the proposed charges compared with the previous tariff year other than increasing in line with the agreed inflation rate.

	2013/2014	2014/2015
Direct Trip Rate of MW Loss	15 MW/s	15 MW/s
Fast Wind Down Rate of MW Loss	3 MW/s	3 MW/s
Slow Wind Down Rate of MW Loss	1 MW/s	1 MW/s
Direct Trip Constant	0.01	0.01
Fast Wind Down Constant	0.009	0.009
Slow Wind Down Constant	0.008	0.008
Trip MW Loss Threshold	100 MW	100 MW

Table 5.1: Proposed Trip Constants

Charge	2013/2014	2014/2015
Direct Trip Charge Rate	€4,080	€4,141
Fast Wind Down Charge Rate	€3,060	€3,106
Slow Wind Down Charge Rate	€2,040	€2,071

Table 5.2: Proposed Trip Rates

[10] Based on a number of sources (e.g. ESRI forecasts (Ireland) and Office for Budget Responsibility (UK) forecasts for 2014 and 2015) it is reasonable in the view of the TSOs, to assume a forecast blended inflation rate of 1.5% for the 2014-2015 period.

5.2 SHORT NOTICE DECLARATION (SND) CHARGES

The following tables propose the SND Charges and Constants for the 2014/2015 tariff year. As seen in Table 5.3 and 5.4 there is no change to the proposed constants and charges compared with the 2013/2014 tariff year other than increasing in line with assumed inflation rate.

SND Constants	**2013/2014**	**2014/2015**
SND Time Minimum	5 min	5 min
SND Time Medium	20 min	20 min
SND Time Zero	480 min	480 min
SND Powering Factor (Notice time weighting curve)	-0.3	-0.3
SND Threshold	15 MW	15 MW
Time Window for Chargeable SNDs	60 min	60 min

Table 5.3: Proposed SND Constants

SND Charge Rate	**2013/2014**	**2014/2015**
SND Charge Rate	€71 / MW	€72 / MW

Table 5.4: Proposed SND Charge Rate

5.3 PROPOSED GPI CHARGES

The proposed GPI Constants, GPI Declaration Based Charges and GPI Event Based Charges for the 2014/2015 tariff year are outlined in Table 5.5, Table 5.6 and Table 5.7 respectively. The TSOs are proposing to make no change to the rates for 2014/2015 other than increasing in line with the assumed inflation rate.

GPI Constants	**2013/2014**	**2014/2015**
Late Declaration Notice Time	480 min	480 min
Loading Rate Factor 1	60 min	60 min
Loading Rate Factor 2	24	24
Loading Rate Tolerance	110%	110%
De-Loading Rate Factor 1	60 min	60 min
De-Loading Rate Factor 2	24	24
De-Loading Rate Tolerance	110%	110%
Early Synchronous Tolerance	15 min	15 min
Early Synchronous Factor	60 min	60 min
Late Synchronous Tolerance	5 min	5 min
Late Synchronous Factor	55 min	55 min

Table 5.5: Proposed GPI Constants

	2013/2014	2014/2015
GPI Declaration Based Rates	**€ / MWh**	**€ / MWh**
Minimum Generation	1.20	1.22
Max Starts in 24 hour period	1.02	1.04
Minimum On time	1.02	1.04
Reactive Power Leading	0.30	0.30
Reactive Power Lagging	0.30	0.30
Governor Droop	0.30	0.30
Primary Operating Reserve	0.12	0.12
Secondary Operating Reserve	0.12	0.12
Tertiary Operating Reserve 1	0.12	0.12
Tertiary Operating Reserve 2	0.12	0.12
Secondary Fuel	0.12	0.12

Table 5.6: Proposed GPI Declaration Based Charge Rates

	2013-2014	2014-2015
GPI Event Based Rates	**€ / MWh**	**€ / MWh**
Loading Rate	0.60	0.61
De-Loading Rate	0.60	0.61
Early Synchronisation	2.70	2.74
Late Synchronisation	27.00	27.41

Table 5.7: Proposed GPI Event Based Charge Rates

5.4 Respondents' Comments

Three respondents (AES, Energia and SSE) commented on the proposed rates section of the consultation paper. AES would welcome further analysis of the implications of moving the Exchange Rate assessment period and requested the historical values between September and the proposed July periods. Energia commented that the consultation paper references ESRI and OBR forecasts for 2014 and 2015 but it does not specifically explain how the 1.5% figure has been arrived at. This should be explained in the interests of clarity. SSE commented that they would appreciate some additional detail on the methodology and inputs used to reach the forecast blended inflation rate.

5.5 TSOs' Response

The TSOs welcome the participants' view on this proposal.

In response to the comment from AES the TSO would like to clarify that the Exchange Rate assessment period was originally based on the last 5 working days in August and it was moved back to the last 5 working days in July to accommodate the NI Generators to allow the Statement of Charges to be published sooner. The NI TSO would have received a number of queries from Participants requesting when the rates would be published as this was dependent on the exchange rate (for GTUoS and HAS/OSC).

With regard to the calculation of the blended inflation rate the TSOs would like to clarify that the forecast inflation for the 2014/15 period has been derived by the TSOs in a manner consistent with previous years. It recognises that the Harmonised Ancillary Services arrangements apply in both

Ireland and Northern Ireland, and that the inflation environment is different in each. Current inflation forecasts in the UK, as published by bodies such as the Office of Budgetary Responsibility (OBR) indicate UK inflation of the order of 3%. Forecasts of HICP inflation in Ireland are general currently less than 1%. On this basis, and recognising the relative balance between Ireland and Northern Ireland the TSOs' view is that a blended rate of 1.5% for the forthcoming period is appropriate.

5.6 TSOs' Recommendations

The TSOs recommend making no changes to the rates for 2014/2015 tariff year other than increasing in line with a forecast blended inflation rate[11] of 1.5%.

[11] Based on a number of sources (e.g. ESRI forecasts (Ireland) and Office for Budget Responsibility (UK) forecasts for 2014 and 2015) it is reasonable in the view of the TSOs, to assume a forecast blended inflation rate of 1.5% for the 2014-2015 period.

6. NEXT STEPS

The RAs will advise the TSOs whether they accept the TSOs recommendations outlined in this paper. The TSOs will then update the Statement of Payments and Charges to reflect the rates and constants for the 2014/2015 tariff year.

Response to Harmonised Ancillary Services and Other System Charges Consultations

on behalf of

AES Kilroot Power Ltd and AES Ballylumford Ltd

9 May 2013

Prepared by Brian Mongan

Front Office Manager, Commercial

1. Introduction

AES Kilroot Power Limited ("AES Kilroot") and AES Ballylumford Limited ("AES Ballylumford") (collectively "AES") welcome the opportunity to comment on the consultation papers relating to Harmonised Ancillary Services and also Harmonised Other System Charges.

AES has Harmonised Ancillary Service (HAS) Agreements in place for its nine merchant generating units registered within SEM.

We are providing a single response to the two consultations papers and our comments follow the structure set out in the TSO papers.

AES agree that the purpose of SND charge is to incentivise the generators to give maximum notice of changes to declarations. This shall assist the TSO to reduce constraint costs and enhance system security.

2. Existing OSC Developments

AES notes the lack of comment on specific system support services such as Black Start services. There are no comments from the TSOs as to the suitability and amount of these contracted services, and if there is a requirement for further provision.
The TSOs should comment on any charges, existing or proposed, for failure to provide such services. This would ensure that -

> "**The arrangements are intended to quantify and track generation performance, identify non-compliance with standards and help evaluate the performance gap between what is needed and what is being provided by service providers…"**

There is concern over the continued perception that the Harmonisation of ancillary services is not being fully implemented, and that the NI Generators are not treated on a consistent and non-discriminatory basis.
AES invites comments from the TSOs regarding their willingness to contract for similar services on an equal basis in each of the power systems in Ireland.

<u>Short Notice Declarations</u>
The clarification regarding the methodology of multiple SNDs below the minimum threshold is very welcome, and AES approve of the proposed approach.

<u>Trip Charge</u>
The development of the DS3 project may provide additional input into the Trip Charge methodology and it is therefore applicable to that process to be completed and implemented.

<u>Late Synchronisation Charge</u>
The proposals by the TSOs have yet to achieve approval from neither the RAs nor the Grid Code Review Panels. AES would clarify that we do not believe that altering the late sync period from 55 minutes to 15 minutes is useful, and that it would not reflect the true nature of workload or effort by generators in assisting the System. It would also not provide a clear incentive to continue such effort.
The comment regarding implementing the modification would depend on any requirement to change the modification and as such it could not be implemented accordingly.

3. New Other System Charges

Secondary Fuel GPI

AES would suggest that the proposed GPI is premature and unnecessary, and that it should be withdrawn until after the full implementation of the Fuel Security Codes and Fuel Switching Arrangements.

Notwithstanding that, AES would welcome clarification from the TSOs as to which part of Grid Code this Charge relates to.

AES would also welcome clarification from the TSOs as to the differences between Dual Fuel / Backup Fuel / Secondary Fuel and how each fit into the proposed methodology.

Introduction of new GPIs

Changes in available generation technology, within the All-Island Market require changes to the approach by these generators in supporting the System. This in turn does need a change in the expectation of the TSOs for these generators to provide system support, and thus a change in the methodology of GPI application.

AES believe it to be appropriate that new GPIs are being assessed by the TSO, regarding this change in generation.

4. Proposed Rates

AES would welcome further analysis of the implications of moving the Exchange Rate assessment period. What are the historical values between September and the proposed July periods.

5. Other Comments

There were suggested potential changes in previous consultations and it may have been useful to recap the suitability, or otherwise, of those changes.

- Multiple AS Values
- Flexibility Services
- Static Frequency Service

Response by Energia to EirGrid and SONI Annual Tariff Consultation Papers

Harmonised Ancillary Services and Other System Charges for Tariff Year 2014/15

9 May 2014

1. Introduction

Energia welcomes this opportunity to respond to the consultation on the Harmonised Ancillary Services (HAS) and Other System Charges (OSC) for tariff year 1st October 2014 to 30th September 2015. Energia is an active member of IWEA and we fully endorse its response to this consultation. The key points we wish to highlight supplementary to the IWEA response are as follows:

2. Key points

- The HAS consultation proposes to replace the interconnector static frequency product with a dynamic frequency product. We see some merit in this providing it is valued correctly and that the performance of the interconnector providing the service is appropriately monitored and enforced. Other services that would provide value to the system should equally be considered, notably the incentivisation of reduced Min Gen through HAS as further discussed below.
- The benefits of reducing Min Gen are well recognised. Currently there is a penal incentive to meet Min Gen Grid Code requirements (or Minimum Functional Specification requirements in NI) through a GPI (and this has been deemed successful). However there is little or no incentive to bring Min Gen down below this level. This is perplexing given the one-for-one relationship between Min Gen and the curtailment of wind. The TSOs last raised the idea of incentivising Min Gen through HAS in April 2012 but this was not progressed. We do not understand why and would strongly encourage the TSOs and the RAs to introduce a Min Gen HAS product at the earliest opportunity.
- In the HAS consultation the TSOs propose refining the Operating Reserve calculation and request feedback on the merits of doing so. On the face of it this has merit and should be explored with Service Providers.
- The OSC consultation signals the TSO's expectation to introduce a ROCOF GPI in line with publication of the RA's ROCOF decision paper. The same RA decision paper also refers to the introduction of a new HAS rate for ROCOF but this is not mentioned in the HAS consultation paper. Is this an intentional omission?
- The OSC consultation states that the TSOs are investigating the introduction of a number of new GPIs for wind farms, DSUs and AGUs. With reference to wind farms it states that the TSOs are investigating the merit of introducing GPIs for DMOL, Reactive Power and Reserve and is requesting feedback on the merits of these investigations. In response to this question we would refer to the IWEA response and would stress the importance of structured industry engagement to fully understand the issues that would have to be carefully considered. We agree with IWEA that GPIs for wind should not be contemplated without this necessary engagement and without first introducing ancillary service contracts for wind. In addition:

  - Clarity is required on whether the intention is to consider GPIs for transmission or distribution connected wind farms?
  - What are the intentions in relation to retrospective application – will the TSOs (or DSO if applicable) be supportive of derogation applications?

- For the 2014/15 period the TSOs have assumed a forecast blended inflation rate of 1.5% for both HAS and OSC. The consultation paper references ESRI and OBR forecasts for 2014 and 2015 but it does not specifically explain how the 1.5% figure has been arrived at. This should be explained in the interests of clarity.

Generation & Wholesale Markets

Response to:

"Other System Charges Consultation - Tariff Year 1st October 2014 to 30th September 2015"

May 9th 2014

Introduction

ESB Generation and Wholesale Markets (GWM) welcome the opportunity to provide feedback on the TSO's proposed Other System Charges for the 2014-15 tariff year. ESB GWM's comments on the TSO's proposals are summarised below.

Main Comments

3.1 Secondary Fuel GPI

The consultation proposes to delay the introduction of a GPI charge for Secondary Fuel declarations, pending completion of work in Northern Ireland in relation to fuel switching and fuel security arrangements there. Insufficient information on the GPI proposal has been given. ESB therefore does not support the introduction of this GPI. Many factors and issues should be carefully considered before such a GPI is introduced. For example, secondary fuel requirements are not harmonised across the island, nor is the requirement universal for all generator types. Furthermore there are no corresponding Ancillary Service Payments for the provision of this service. It would seem unfair to put in place a system that could penalise generators that offer this benefit and contribute to overall system security, whereas generators that do not provide this service do not face penalties. Consideration should also be given to the fact that secondary fuel operation is an emergency service only.

Section 3.2 Introduction of new GPIs

ESB GWM are of the opinion that all customers that are connected to the Transmission System should be treated as fairly and equally as possible. However, to maintain a commercial equilibrium if certain types of customers are prohibited from earning revenues from Ancillary Services the same customers should also be exempt from GPI's associated with these services. Based on this wind farms without any Ancillary Services Contract in place should not be considered for GPI's.

On the basis that renewable subsidies are based on metered generation and considering the doubt over future market compensation during curtailment the operation of wind farms on the frequency response curve to enable reserve provision must be considered carefully. Will the utilisation of a wind farm in frequency response mode be treated similar to a generator being constrained off or will the remuneration for the reserve be structured in an appropriate way so as to compensate effectively? Whatever solution it is imperative that the wind farm is kept financially whole.

More generally in relation to the performance monitoring of wind farms, ESB GWM consider that more engagement with industry should be undertaken by the TSOs before any further processes or standards are put in place. This will help ensure that any procedures or work practices that are introduced are workable and achievable by wind farms, taking the capability

of wind farms into account, rather than setting unrealistic standards. Furthermore, if there is no significant impact on the system then there is no need for a penal incentive. Consideration should be given to tolerance limits where no penalty will be applied.

The focus of the performance monitoring of wind should be on the performance over time, rather than concentrating efforts on discreet points and events, which can be very time consuming and add little value. In an effort to make performance monitoring of wind more efficient and effective, thought should be given regarding the introduction of a MW threshold below which reporting is not required.

IWEA response to the Harmonised Ancillary Services and Other Systems Charges Consultations

09 May 2014

The Irish Wind Energy Association (IWEA) welcomes the opportunity to comment on the SEM consultations on the Harmonised Ancillary Services and Other Systems Charges.

The consultation outlines some changes to be made to ancillary payments and other system charges. IWEA welcomes the review of these items and believes that any changes introduced should be designed to increase system flexibility and to ensure an appropriate generation mix. The flexibility of thermal generation is an essential component of an electricity system which aims to have high levels of renewable generation, in particular wind.

IWEA believes that ancillary services could be used to incentivize minimum generation levels below grid code requirements. This is particularly relevant for units which are constrained on due to transmission constraints. The minimum generation levels required on the system have been seen to cause curtailment of wind generation and it is appropriate that lower levels of minimum generation be incentivized.

IWEA notes that work is being done by EirGrid on the wider system needs and identifying what system services will be required with increasing levels of variable generation on the electricity system. IWEA welcomes this work and believes that Ancillary Service payments have an important role to play in incentivizing the appropriate plant going forward. It is important that the wider system needs are taken into consideration and that a market value is placed on the services being provided. Following on from the Facilitation of Renewables and the DS3 studies, the importance of technical parameters such as system inertia have been highlighted and this should also be reflected in ancillary service payments. It is essential that the ongoing work on System Services is carried out in a timely manner so that the new services can be introduced as soon as possible.

IWEA believes that the provision of ancillary services should be technology neutral where possible. There may be a number of different technologies that can provide the same service and these different technologies should be able to avail of the revenues. With the introduction of the EWIC, services provided by the interconnector should be appropriately priced and regulated.

2.3 Dynamic Frequency Response from an Interconnector

While IWEA welcomes Ancillary Services which provide extra flexibility to the system, we believe that the provision of services should be technology neutral, and there should be a tender process which may

identify if dynamic frequency response as outlined in this section can be provided by other service providers.

Harmonized Other System Charges

3.2 Introduction of new GPIs

IWEA believes that the introduction of Generator Performance Incentives (GPIs) for wind farm needs to be carefully considered. GPIs need to be aligned with the real needs of the grid. The incentive should take into account the capability of the wind farm and should not be overly penal. If there is no significant impact on the system then there is no need for a penal incentive and consideration should be given to tolerance limits where no penalty will be applied. Further industry engagement is required to ascertain exactly how the GPIs will work for wind energy.

- Clarity is required as to whether the GPIs will apply to both transmission and distribution connected projects, and the role of the DSO in this.
- The GPIs should not be introduced unless there are Ancillary Service contracts in place. Is work ongoing to progress AS contracts for both transmission and distribution connected projects?
- The TSO expectation of wind farm performance needs to be realistic, for example changes to wind conditions when a dispatch signal is sent may impact the response. This needs to be taken into consideration.
- Clarity is required that a wind generator would not be dispatched down for the provision of reserve (unless there was a contract in place for doing so) and that reserve would only be available from wind farms in the case where it is dispatched down for other reasons. A penalty should only be applied in the case where there is a reward for providing the reserve through an ancillary service payment.
- Further information is required on how the performance of plant will be monitored. This should not impose additional cost on generators.
- Performance over time should be looked at rather than focussing on discreet points. It is very time consuming generating reports for each single event.
- Consideration should be given to a MW threshold below which reporting is not required.
- Some of the problems seem to arise out of loss of signals - an additional relay could be included in the RTU to confirm the signal has gone through.
- The provision of information to generators is important so they can monitor their own performance and prevent issues before they arise. All events should be logged.
- Monitoring should be aligned with the real needs of the grid.
- Clarity is required as to whether GPIs are to be introduced going forward or if they will apply retrospectively and, if so, the derogation procedures that will be in place.

IWEA welcomes the opportunity to respond to this consultation. Any changes introduced should be designed to increase system flexibility and to ensure an appropriate generation mix. Further industry engagement is required to ascertain exactly how the GPIs will work for wind energy.

Power NI Energy Limited
Power Procurement Business (PPB)

HAS and OSC Consultation

April 2014

Response by Power NI Energy (PPB)

9 May 2014

Power NI Power Procurement Business (PPB) welcomes the opportunity to respond to the consultation papers on Harmonised Ancillary Services (HAS) and Other System Charges (OSC).

PPB is the counter-party to Power Purchase Agreements, which were established in 1992 as part of the restricting and privatisation of the electricity supply industry in Northern Ireland. PPB purchases both the capacity of the contracted generating units and any electricity generated by those units on terms specified in the agreements. The generating units are extremely flexible and reliable and therefore with the changes in the generation mix and typology of the system these units are likely to play a significant role in helping the System Operator manage the system. Flexibility is required to securely operate a system, which is being re-designed to accommodate ambitious renewable targets.

PPB welcomes the work which has been undertaken by the TSO in relation to DS3. It is also important that the delay in the delivery of DS3, due to the important I-SEM considerations being made, does not stifle innovation in ancillary services as this will have detrimental impact on customers and the development of renewable projects. The TSO must therefore continue to explore opportunities to procure new ancillary services, where they provide material value for customers by minimizing constraint costs, in the period up to the implementation of the new DS3 arrangements. PPB notes that none of the four short term ancillary services, which were initially consulted upon in the Consultation Paper for 2011-12, have been procured. There must be a more expedient method for procuring ancillary services which can deliver operational flexibility and mitigate against high constraint costs. The delay in contracting for the new ancillary services has meant that both customers and ancillary service providers have been unable to realize the value associated with these services. Given the level of counter-trading on the interconnector there must be a strong economic case for both Flexible Mode Operation and Lower Minimum Generation.

The commissioning of the East West interconnector provides the system operator with sources of flexibility which help it to manage the technical challenges associated with a relatively small system. The interconnectors were both commissioned with the technical capability of providing very fast ramp rates which can be triggered by a binary input signal (which could be driven by frequency thresholds). The TSOs, in the consultation paper, are recommending the introduction of a Dynamic Frequency Reserve product for interconnectors based on the hypothesis that this new product will "provide an improvement in frequency control during transients" which will "provide enhanced benefits to both the TSOs and the customer". If this is the criteria, which has been used to assess the merits of utilizing the technical capability and rewarding the same with a new ancillary service, ancillary service products such as Synchronous Inertial Response and Fast Frequency Response should also be assessed using this criteria. PPB would expect a

further consultation on the proposed Dynamic Frequency Reserve product rate if this product is going to be progressed.

In terms of setting the rates for existing Ancillary Services, PPB has a concern in relation to the application of exchange rates for Ancillary Service Providers in Northern Ireland. Ancillary Service rates can be, unfairly, extremely volatile for Ancillary Service Providers in this jurisdiction because of the volatility of exchange rates. Given that the original rates were based on SSSA rates in Northern Ireland PPB would prefer that the only adjustment to rates, from year to year, is to reflect increases in inflation. This exchange rate volatility is not reflected in the CPM as the BNE cost is based on a distillate plant in Northern Ireland.

PPB also believes that any proposal in relation to ROCOF related charges should be carried out at the same time as the consultation on the final DS3 commercial proposals (including the ROCOF ancillary service), in order that Grid Code Users and Ancillary Service providers can assess the full impact of the proposals.

Amanda Kelly
Eirgrid Plc
The Oval
160 Shelbourne Rd
Ballsbridge
Dublin 4

Vivienne Price
SONI Ltd
Castlereagh House
12 Manse Road
Belfast
BT6 9RT

7th May 2014

Harmonised Ancillary Services and Other System Charges Consultation (SEM-14-024 and SEM-14-025)

Dear Amanda and Vivienne

Thank you for giving SSE the opportunity to comment on the TSOs consultation papers on Harmonised Ancillary Services and Other System Charges for the 2014/15 Tariff Year.

SSE is a utility with both generation and supply interests in Ireland. As SSE Airtricity we supply around 600,000 electricity customers. To secure energy for those retail customers, SSE is involved in electricity generation and energy portfolio management. Our wholesale business priorities are competitiveness, sustainability and flexibility. Our response covers both TSO consultation papers.

The consultation paper notes that, separate to the Annual Harmonised Ancillary Services consultation process, the TSOs have made proposals to the regulatory authorities regarding enhanced System Services and commercial arrangements. We are supportive of the work done by the TSO through the DS3 System Services workstream, and look forward to the consultation paper that will be published by the SEM Committee in early July. Getting the correct commercial incentives for flexibility will underpin the investment decisions needed to make the power system fit for 2020.

Harmonised Ancillary Services

Blended Inflation Rates

The TSOs propose to retain the AS and OSC rates approved for the 2013/2014 tariff year adjusting for inflation at a forecast blended inflation rate of 1.5%. SSE would appreciate some additional detail on the methodology and inputs used to reach the forecast blended inflation rate.

Dynamic Frequency Response from an Interconnector

The paper includes a proposal to refine the existing provision of static reserve from the interconnectors. The interconnectors would provide a dynamic product that would only be

delivered after a frequency threshold has been breached. While we would welcome any Ancillary Services that would deliver additional flexibility to the system (and allow for more intelligent use of assets), we understand that this is a service that will primarily be provided by EWIC. Given that the TSO is both asset owner and service procurer, we believe a detailed analysis of the unstated increase in rate is required, especially given that the existing rate was set on the basis of a discount to dynamic reserve.

Other System Charges

Blended Inflation Rates

As stated under Harmonised Ancillary Services, we would appreciate some additional detail on the methodology and inputs used to reach the forecast blended inflation rate.

Short Notice Re-declarations

The proposed clarification is drafted as:

"To discourage multiple SNDs below the minimum threshold in quick succession, re-declarations below the SND Minimum Threshold within the Time Window for Chargeable SNDs are subject to an SND charge, provided the sum of the SND reductions are equal to or above the SND Minimum Threshold. In such circumstances, the SND reduction is the summation of the smaller SND reductions and set to no notice."

SSE believes that the redrafting provides adequate clarity on the minimum threshold on SNDs.

Trip Charges

SSE welcomes the RAs and TSOs recommendation not to proceed with any review of the Trip Charge methodology.

Late Synchronisation Charge

The consultation paper notes that:

"The TSOs have since then carried out an analysis of the impact of costs of modifications and presented results at the Joint Grid Code Review Panel meeting on 12th February 2014. ***The results presented were inconclusive.*** *The TSOs intend to produce a further report to send to the RAs in the near future."*

Our understanding was that the analysis provided to the RAs also included a recommendation that there would be no benefit to further studies being carried out. It is not clear why the modification is still being progressed, given that there is already a significant incentive to synchronise at the appointed time.

I hope our comments on the consultation paper are useful. If you have any questions with regard to our response, please don't hesitate to contact me.

Yours sincerely,

Connor Powell
Market Development, SSE (Ireland)