

# **Harmonised Other System Charges Consultation**

**Tariff Year  
1<sup>st</sup> October 2014 to 30<sup>th</sup> September 2015**

**2<sup>nd</sup> April 2014**



## EXECUTIVE SUMMARY

Other System Charges (OSC) are levied on generators which fail to provide necessary services to the system leading to higher Dispatch Balancing Costs and Ancillary Service Costs. The OSC charges include charges for generators whose units Trip or make downward re-declarations of availability at short notice. Generator Performance Incentive (GPI) charges were harmonised between Ireland and Northern Ireland with the Harmonisation of Ancillary Service & Other System Charges “Go-live” on the 1<sup>st</sup> February 2010. These charges are specified in the Transmission Use of System Charging Statements approved by the Regulatory Authorities (RAs) in Ireland and Northern Ireland. The arrangements are defined in both jurisdictions through the Other System Charges policies, the Charging Statements and the Other System Charges Methodology Statement.

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<sup>1</sup> of 1.5% for the Tariff year 2014-15.

The Generator Performance Incentive (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.

The implementation of GPIs for Demand Side Units (DSU), Aggregated Generator Units (AGU) and Wind Farm Power Stations (WFPS) is being considered and future OSC consultations may propose implementation of OSC charges to these Users.

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<sup>1</sup> 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

ASP	Ancillary Service Provider
AS	Ancillary Service
HAS	Harmonised Ancillary Services
TSO	Transmission System Operator
SONI	System Operator Northern Ireland
RA	Regulatory Authority
SEM	Single Electricity Market
OSC	Other System Charges
GPI	Generator Performance Incentive
SND	Short Notice Declaration
DSU	Demand Side Unit
AGU	Aggregated Generator Unit
WFPS	Wind Farm Power Station
DETI	Department of Enterprise, Trade and Investment
DMOL	Design Minimum Operating Level

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## 1. INTRODUCTION

Other System Charges (OSC) are defined in the Transmission Use of System / System Support Services Statement of Charges and include Trip Charges, Short Notice Declaration charges and Generator Performance Incentive charges. These Other System Charges are levied on underperforming generators who unexpectedly trip off the system or re-declare at short notice causing a re-dispatch of other plant at a cost. The Generator Performance Incentive (GPI) charges are levied on those generators which fail to comply with specific standards in the Grid Code or the contracted values in the relevant AS agreement where applicable.

The TSOs consult on an annual basis regarding changes to the OSC charges and the purpose of this consultation paper is to obtain views on the proposed OSC rates for the tariff year 1<sup>st</sup> October 2014 to 30<sup>th</sup> September 2015.

Short Notice Declaration (SND) incentivise generators to avoid changing declarations at short notice or at least provide maximum notice. The Notice Time Weight is an empirical weighting corresponding to the relative importance of notice time from 8 hours up to real time.

The Trip Charge incentivises generators to minimise the number of trips and to aim for slow tripping, when a trip is unavoidable. The Trip Charge is designed to incur higher charges the higher the MW loss seen by the power system. A charge applies for all full trips and/or partial trips where the reduction is greater than or equal to the trip threshold.

### 1.1 OSC Review

The OSC were introduced on a harmonised basis on 1<sup>st</sup> February 2010 and are divided into the following:

- Trip Charge;
- Short Notice Declaration Charge; and
- Generator Performance Incentive Charge.

In the event of a generator unit dropping output a Trip Charge is levied on the service provider depending on how the unit tripped (i.e. slow wind down, fast wind down, direct trip). The charge is intended to incentivise behaviour that enhances system security and reduces operating costs. The proposed rates for the various categories of unit trip are set at a level which seeks to recover an amount of costs which is representative of the power system impact. The purpose of the Trip Charge is to minimise the number of trips and, when a trip is unavoidable, to incentivise a Generator to reduce output as slowly as possible.

In the event of a generator unit making a downward declaration of its availability at short notice a Short Notice Declaration (SND) Charge is levied on the service provider depending on the amount of notice given. The charge is intended to incentivise behaviour that enhances system security and reduces constraints costs. The RAs' January 2010 Decision Paper<sup>2</sup> stated that the charge rate for SNDs is to be phased in with the rate increasing from €20 / MW to €40 / MW for the 2010/2011 tariff period and to €70 / MW from the 1<sup>st</sup> October 2011. The phased approach to the rates setting allowed all parties time to gain experience of the new harmonised arrangements.

<sup>2</sup> [SEM-10-001]; Harmonised All-Island Ancillary Services Rates and Other System Charges; Decision Paper; 4 Jan 2010

It is important for the efficient and economic operation of the system to ensure that generators maintain the performance required in the respective Grid Codes and act in a manner that facilitates the operation of the system. The harmonised arrangements establish Generator Performance Incentive (GPI) Charges monitoring and performance incentives on an all-island basis. 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 as the power system develops.

The TSOs have found the introduction of GPIs has led to improved performance of certain generation units in relation to the required Grid Code compliance. In some cases GPIs have placed focus on the performance and highlighted the level of compliance of certain generator units. The TSOs are therefore proposing to retain the OSC rates approved for the 2013/2014 tariff year with the inclusion of the agreed inflation rate.

## **1.2 OSC REPORTING**

A monthly report is published on the TSOs' websites which shows the following:

1. The total Trip Charges levied and the type of trip. This is reported on an all-island basis and the total OSCs for the tariff year; and
2. The total SND charges levied. This is reported on an all-island basis and the total OSCs for the tariff year; and
3. The revenue levied for each category of GPI. This is reported on an all-island basis and the total GPIs for the tariff year.

These monthly reports are available on the TSOs' websites which can be accessed at [www.EirGrid.com](http://www.EirGrid.com) or [www.soni.ltd.uk](http://www.soni.ltd.uk).

## **1.3 INSTRUCTIONS FOR RESPONSE**

Responses should be sent to: [Amanda.Kelly@eirgrid.com](mailto:Amanda.Kelly@eirgrid.com) or [Vivienne.Price@soni.ltd.uk](mailto:Vivienne.Price@soni.ltd.uk)

**The closing date for receipt of responses is 5pm on Wednesday 30<sup>th</sup> April, 2014.**

It would be helpful if comments were aligned with the sections and sub-sections of this consultation document. It would also be helpful if responses were not confidential. If confidentiality is required, this should be made clear in the response. Please note that, in any event, all responses will be shared with the RAs.

## 2. EXISTING OSC DEVELOPMENTS

The TSOs have reviewed the charges levied on generating units for the tariff year 2012-2013 and it has maintained an improvement in the level of compliances over the period. This trend can be viewed on the monthly reports published on the EirGrid and SONI websites.

### 2.1 Short Notice Re-declarations

Short Notice Declarations (SND) are made by generators to reflect changes 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 the least cost. The TSOs believe that the charge is appropriate and would not propose to change the charge for this upcoming tariff year other than increasing in line with the assumed inflation rate.

The TSOs would like 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 would be dealt with in the settlement system were either a charge would result, or instead the MW reduction would be 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<sup>3</sup>, 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.

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<sup>3</sup> <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>

## 2.2 Trip Charge

In response to the participants views from last year's OSC consultation paper the TSOs stated in their recommendations paper<sup>4</sup> 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, recommend that we leave the Trip Charge methodology 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).

## 2.3 Late Synchronisation Charge

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 23<sup>rd</sup> May 2012 until 28<sup>th</sup> June 2012 and on the 28<sup>th</sup> September 2012 the TSOs issued a joint response to the consultation, which was published on the EirGrid and SONI websites<sup>5</sup>. 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.

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<sup>4</sup> SEM-13-043b Other System Charges recommendations paper 2013-14

<sup>5</sup> [www.eirgrid.com](http://www.eirgrid.com) and [www.soni.ltd.uk](http://www.soni.ltd.uk)



### **3. NEW OTHER SYSTEM CHARGES (OSC)**

In assessing new developments for OSC, there are two key areas for consideration:

1. Where non-compliance trend is found and a GPI is considered worthwhile or an existing GPI should be modified; and
2. Implementation of OSC for non-conventional generation.

#### **3.1 Secondary Fuel GPI**

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 are seeking participant's views on the merits of this recommendation.

#### **3.2 Introduction of new GPIs**

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.

The TSOs would welcome participants' views on the merits of these investigations.

### 3.3 ROCOF GPI

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

## 4. PROPOSED RATES

The following sections define the rates used for the Other System Charges (OSC).

In the Harmonised Ancillary Services Rates and Other System Charges Decision paper for 2011-12, 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 2014-15 but propose that the 5-day average rate is based on the last five working days of July in order that the HAS & OSC GBP rates are available sooner.

The OSC rates assume a forecast blended inflation rate<sup>6</sup> of 1.5% for the 2014-2015 period.

### 4.1 TRIP CHARGES

The following tables propose the Trip Charges and Constants for the 2014-2015 tariff year. As seen in Table 4.1 and Table 4.2 there are no changes 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 4.1: 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 4.2: Proposed Trip Rates**

<sup>6</sup> 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.

## 4.2 SHORT NOTICE DECLARATION (SND) CHARGES

The following tables propose the SND Charges and Constants for the 2014-2015 tariff year. As seen in Table 4.3 and 4.4 there is no change to the proposed constants and charges compared with the 2013-2014 tariff year other than increasing in line with the proposed inflation rate.

<b>SND Constants</b>	<b>2013-2014</b>	<b>2014-2015</b>
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 4.3: Proposed SND Constants**

<b>SND Charge Rate</b>	<b>2013-2014</b>	<b>2014-2015</b>
SND Charge Rate	€71 / MW	€72 / MW

**Table 4.4: Proposed SND Charge Rate**

## 4.3 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 4.5, Table 4.6 and Table 4.7 respectively. The TSOs are proposing to make no change to the rates for 2014-2015 other than increasing in line with the proposed inflation rate.

<b>GPI Constants</b>	<b>2013/2014</b>	<b>2014-2015</b>
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 4.5: Proposed GPI Constants**

	2013-2014	2014-2015
<b>GPI Declaration Based Rates</b>	<b>€ / MWh</b>	<b>€ / MWh</b>
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

**Table 4.6: Proposed GPI Declaration Based Charge Rates**

	2013-2014	2014-2015
<b>GPI Event Based Rates</b>	<b>€ / MWh</b>	<b>€ / MWh</b>
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 4.7: Proposed GPI Event Based Charge Rates**

## **5. SUMMARY AND NEXT STEPS**

The TSOs have provided the proposals for the OSC rates and design changes for Tariff Year 2014-2015. Comments are invited from interested parties on this consultation paper and should be aligned with the sections and sub-sections of this document. If confidentiality is required, this should be made explicit in the response as the comments will be published on the TSOs' websites<sup>7</sup>. Please note that, in any event, all responses will be provided to the RAs. The closing date for responses is 5pm on Wednesday 30<sup>th</sup> April, 2014.

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<sup>7</sup> [www.eirgrid.com](http://www.eirgrid.com) and [www.soni.ltd.uk](http://www.soni.ltd.uk)