

# Harmonised Other System Charges Consultation

**Tariff Year**  
**1<sup>st</sup> October 2013 to 30<sup>th</sup> September 2014**

**11<sup>th</sup> April, 2013**



## **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 2012/2013 tariff year adjusting for inflation at forecast rate<sup>1</sup> of 2% for the Tariff year 2013-14.

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.

The implementation of GPIs for Demand Side Units 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 Quarterly Commentary Winter 2012; published 31st Jan 2013 and HM Treasury compilation of independent forecasts; published February 2013) it is reasonable to assume a forecast blended inflation rate of 2% for the 2013-2014 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 Charge
GPI	Generator Performance Incentive
SND	Short Notice Declaration

## Contents

EXECUTIVE SUMMARY .....	2
ABBREVIATIONS.....	3
1. INTRODUCTION.....	5
1.1 OSC Review.....	5
1.2 OSC REPORTING .....	6
1.3 INSTRUCTIONS FOR RESPONSE .....	6
2. EXISTING OSC DEVELOPMENTS .....	7
2.1 Short Notice Re-declarations.....	7
2.2 Trip Charge .....	7
2.3 Trip Charge When Under Test in SEM .....	8
2.4 Late Synchronisation Charge .....	8
3. NEW OTHER SYSTEM CHARGES (OSC).....	9
3.1 Secondary Fuel GPI.....	9
3.2 GPIs for Demand Side Units (DSU).....	9
4. PROPOSED RATES .....	10
4.1 TRIP CHARGES .....	10
4.2 PROPOSED SHORT NOTICE DECLARATION (SND) CHARGES.....	11
4.3 PROPOSED GPI CHARGES .....	11
5. SUMMARY AND NEXT STEPS .....	13

## 1. INTRODUCTION

Other System Charges (OSC) are defined in the TUoS / SSS 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 2013 to 30<sup>th</sup> September 2014.

SNDs incentivise units 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 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 tripping 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 while recognising that a level of tripping is inevitable. The purpose of the trip charge is to minimise the number of trips and, when a trip is unavoidable, to incentivise a Generator to wind down a unit as slowly as possible.

In the event of a generator unit making a downward declaration of their 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

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

2011. The phased approach to the rates setting allowed all parties time to gain experience of the new harmonised arrangements.

It is important for the efficient and economic operation of the system to ensure that generators maintain the performance required in the 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 generator 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 generating 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 2012/2013 tariff year with the inclusion of the agreed inflation rate.

## **1.2 OSC REPORTING**

A monthly report is now 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 Friday 10<sup>th</sup> May, 2013.**

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 2011-2012 and it maintains the improvement level of non-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 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 would not propose to change the tariff for this upcoming tariff year other than increasing in line with the assumed inflation rate.

### 2.2 Trip Charge

Trip charges are levied when plant unexpectedly drops load off the system resulting in the TSOs having to dispatch on plant to deal with the loss of generation. There were 5 secondary trip events during the tariff year 2011-2012 and up to December 2012 where, following a large drop in load, another unit dropped significant load, causing a further reduction in frequency. These events are of serious concern. Table 2.1 below shows the amount tripped.

Event	Date	Initial Trip - MWs Lost	Secondary Trip - MWs Lost
1	20/08/2012	385	90
2	03/09/2012	185	273
3	04/09/2012	285	283
4	07/09/2012	534	255
5	10/10/2012	200	250

**Table 2.1: Secondary Trip Events during Tariff Year 2011-2012 and up to December 2012**

The TSOs would not propose a change to the tariff for this upcoming tariff year other than increasing in line with the agreed inflation rate. However, we are proposing that the current threshold of 100 MW for a Trip charge is reduced to 20 MW. This would capture smaller units that trip after an event causing system problems.

## 2.3 Trip Charge When Under Test in SEM

Testing tariffs are applied to all generator units that may be granted Test status in the SEM. The SEM Testing Tariffs Consultation Paper<sup>3</sup>, published in July 2011, set out the proposal for the application of two testing tariffs to Generator Unit Under Test (GUUT) dependent upon the type of test being carried out, level of reserve carried by the TSOs, and the risk to system security. The paper reviewed the methodology and background for the costs arising from GUUT, when there is an increase in system reserve requirement (high risk), and no increase in system reserve requirement (lower risk). The two types of tariffs considered in the paper were Tariff A and Tariff B.

Tariff A is applicable when new units are being commissioned on to the power system for the first time and when existing units require testing when returning from outages<sup>4</sup>. In these cases the generator will carry out a range of tests to demonstrate Grid Code compliance to the TSOs. The impact of a GUUT is an increase in the costs associated with maintaining system security.

Tariff B covers the costs of when a unit is in the latter stages of commissioning or undergoing general testing. In this case the unit is deemed to be reasonably reliable and normal reserve requirements apply.

The TSOs are considering setting Tariff B to zero and instead the unit will be subject to trip charges. The SEM testing Tariffs Consultation Paper<sup>3</sup>, set out the calculation methodology and 2012 rates for testing Tariff B. This OSC Consultation Paper section 4.1 set out trip charge rates for coming tariff year.

The TSOs would like to discourage generators tripping during testing and therefore it is appropriate for a charge to be incurred on an event basis, and not as a fixed tariff. The TSOs would welcome participants' views on the merits of this proposal.

## 2.4 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. If this change is ratified it will be implemented in line with the publication of the decision paper.

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<sup>3</sup> SEM Testing Tariff Consultation Paper July 2011 sets out the methodology for calculating the cost components attributable to generator units under test. [http://www.allislandproject.org/en/transmission\\_decision\\_documents.aspx?article=3d45a24c-5677-4fa6-9254-eb00aa0db0c](http://www.allislandproject.org/en/transmission_decision_documents.aspx?article=3d45a24c-5677-4fa6-9254-eb00aa0db0c)

<sup>4</sup> Scope of works for the outage is discussed with TSOs. TSOs assess the impact and determine tariff and testing requirements.



### **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 DSUs as defined under the Grid Codes.

As discussed in the 2012-2013 OSC Consultation paper, the TSOs will consider the merits of these areas and expect to propose changes as part of the future annual consultations on OSC.

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

In the 2010/2011 OSC consultation paper<sup>5</sup> the TSOs proposed that future potential GPIs may be introduced to address gaps in the performance of generating units. In the 2011/2012 tariff year, the TSOs proposed a new GPI relating to a generating unit's declared secondary fuel capability. The TSOs understand that the fuel security arrangements in Northern Ireland has advanced but is not at the stage yet where a GPI can be applied to all units on the island. Should this GPI be introduced, the TSOs are proposing a rate for the Secondary Fuel GPI of €0.12 / MWh which is consistent with the declared reserve GPIs.

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 2013/14 consultation the TSO's are seeking participant's views on the merits of this recommendation.

#### **3.2 GPIs for Demand Side Units (DSU)**

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

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<sup>5</sup> Harmonised Other System Charges 2010/2011; Consultation Paper; 9th July 2010

## 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 final exchange rate used for the HAS and OSC was based on the 5-day average rate for the period 25 August 2011 to 29 August 2011, one month before the tariff year starts). The TSOs will use the same methodology for 2013-14 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 to the Northern Ireland generating companies.

The OSC rates assume a forecast blended inflation rate<sup>6</sup> of 2% for the 2013-2014 period.

### 4.1 TRIP CHARGES

The following tables propose the Trip Charges and Constants for the 2013/2014 tariff year. As seen in Table 4.1 and Table 4.2 there is no change to the proposed charges compared with the previous tariff year other than increasing in line with the agreed inflation rate.

	2012/2013	2013-2014
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	2012-2013	2013-2014
Direct Trip Charge Rate	€4,000	€4,080
Fast Wind Down Charge Rate	€3,000	€3,060
Slow Wind Down Charge Rate	€2,000	€2,040

**Table 4.2: Proposed Trip Rates**

<sup>6</sup> Based on a number of sources (e.g. ESRI Quarterly Commentary Winter 2012; published 31st Jan 2013 and HM Treasury compilation of independent forecasts; published February 2013) it is reasonable to assume a forecast blended inflation rate of 2% for the 2013-2014 period.

## 4.2 PROPOSED SHORT NOTICE DECLARATION (SND) CHARGES

The following tables propose the SND Charges and Constants for the 2013/2014 tariff year. As seen in Table 4.3 and 4.4 there is no change to the proposed constants and charges compared with the 2012-2013 tariff year.

<b>SND Constants</b>	<b>2012/2013</b>	<b>2013-2014</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>2012/2013</b>	<b>2013/2014</b>
SND Charge Rate	€70 / MW	€71 / MW

**Table 4.4: Proposed SND Charge Rate**

## 4.3 PROPOSED GPI CHARGES

The proposed GPI Constants, GPI Declaration Based Charges and GPI Event Based Charges for the 2013-2014 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 2013-2014 other than increasing in line with the agreed inflation rate.

<b>GPI Constants</b>	<b>2012/2013</b>	<b>2013-2014</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**

	<b>2012/2013</b>	<b>2013-2014</b>
<b>GPI Declaration Based Rates</b>	<b>€ / MWh</b>	<b>€ / MWh</b>
Minimum Generation	1.18	1.20
Max Starts in 24 hour period	1.00	1.02
Minimum On time	1.00	1.02
Reactive Power Leading	0.29	0.30
Reactive Power Lagging	0.29	0.30
Governor Droop	0.29	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 4.6: Proposed GPI Declaration Based Charge Rates**

	<b>2012-2013</b>	<b>2013-2014</b>
<b>GPI Event Based Rates</b>	<b>€ / MWh</b>	<b>€ / MWh</b>
Loading Rate	0.59	0.60
De-Loading Rate	0.59	0.60
Early Synchronisation	2.65	2.70
Late Synchronisation	26.47	27.00

**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 2013-2014. 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 Friday 10<sup>th</sup> May, 2013.

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