

# Harmonised Ancillary Services Consultation

Tariff Year  
1<sup>st</sup> October 2015 to 30<sup>th</sup> September 2016

20<sup>th</sup> February, 2015



## EXECUTIVE SUMMARY

The purpose of this consultation paper is to obtain views on the proposed harmonised All-Island Ancillary Services (AS) and the associated rates for both new and existing services for the tariff year 1<sup>st</sup> October 2015 to 30<sup>th</sup> September 2016. The Regulatory Authorities' (RA) January 2010 Decision paper<sup>1</sup> requires that the Transmission System Operators (TSO) consult annually on any future services or rates.

In this year's Annual Tariff Consultation the TSOs are proposing to adjust the rates for an assumed level of inflation. Consistent with previous years the TSOs have uplifted the HAS rates for a blend of forecast inflation in both Ireland and Northern Ireland. This recognises that the Harmonised Ancillary Services arrangements apply in both. 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 2-2.5%. Recent Central Bank Reports forecast HICP inflation in Ireland to be around 0.5%. On this basis, and recognising the relative balance between Ireland and Northern Ireland, and indeed the somewhat lower than originally forecast expected outturn inflation for 2014/15 the TSOs' view is that a blended rate of 1% for the forthcoming 2015/16 period is appropriate. No other changes to rates are proposed.

In the 2014-2015 consultation, the TSOs proposed a refinement of the existing provision of static reserve from the interconnectors to become a dynamic product that would only be delivered after a frequency threshold (high or low) has been breached. The robust technical analysis to further determine the benefits from static and dynamic interconnector reserve is on-going. A separate consultation will be either included in the DS3 system service changes or in a separate consultation depending on the urgency required.

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<sup>1</sup> [SEM-10-001]; Harmonised All-Island Ancillary Services Rates and Other System Charges; Decision Paper; 4 Jan 2010.

## 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
TOD	Technical Offer Data
CER	Commission for Energy Regulation
POR	Primary Operating Reserve
SOR	Secondary Operating Reserve
TOR1	Tertiary Operating Reserve 1
TOR2	Tertiary Operating Reserve 2
RoCoF	Rate of Change of Frequency

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# 1. INTRODUCTION

The purpose of this consultation paper is to obtain views on the TSOs' proposed harmonised All-Island Ancillary Services (AS) and the associated rates for both new and existing services for the tariff year 1<sup>st</sup> October 2015 to 30<sup>th</sup> September 2016. The RAs' January 2010 Decision paper<sup>2</sup> requires that the TSOs consult annually on changes to AS rates.

In managing the transmission system, the TSOs must be able to deal with unexpected changes of generation, interconnector flows or system demand. This is accomplished by maintaining a prudent level of operating margin. The operating margin is the amount of reserve available, provided by additional generation, interconnectors or demand reduction measures, above that required to meet the expected power system demand.

The level of operating margin required for the island is set jointly by the TSOs. Critical factors used to determine the required reserve quantities include the largest in-feed on the island, variability in load and generation in the operational timeframe, generation reliability and the reliability of the provision of reserve by service providers. Service providers are contracted to provide reserve through the AS agreements and are paid for the different categories of reserve (Primary Operating Reserve, Secondary Operating Reserve, Tertiary Operating Reserve 1, Tertiary Operating Reserve 2, Synchronised Replacement Reserve and De-synchronised Replacement Reserve) based on their declared availability when they are generating over a certain MW value. If during a frequency event the service provider does not provide the expected level of Primary Operating Reserve, Secondary Operating Reserve or Tertiary 1 Operating Reserve, a levy is charged to the service provider for the reserve shortfall.

Similarly for reactive power, the TSOs must maintain a voltage balance across the transmission system in order to maintain a secure and stable power system and to avoid damage to connected equipment. To maintain the balance, the appropriate level of reactive power (leading and lagging) is required at appropriate locations on the transmission system. The required level of reactive power varies in the operational timeframe. Reactive power is mainly provided by generator units and transmission assets. Generally, reactive power must be provided close to the location where it is needed. Overall, therefore, the requirement is for the flexible provision of reactive power at appropriate points across the transmission system. Service providers are contracted to provide reactive power through the HAS Agreement and are paid for leading and lagging reactive power based on their declared reactive power availability when they are synchronised to the transmission system.

Black start is the ability of a generating unit or interconnectors to start up and provide electricity to the transmission system without an external power supply. Specific service providers are contracted to provide black start services through the AS Agreements in Ireland and Connection Agreements in Northern Ireland. Depending on the service provider they are paid an hourly availability rate to recover costs associated with capital, maintenance, TSO initiated testing and usage costs for the provision of this service. In the event that a service provider fails a TSO initiated black start test, then the service provider will be levied a charge.

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<sup>3</sup> [SEM-10-001]; Harmonised All-Island Ancillary Services Rates and Other System Charges; Decision Paper; 4 Jan 2010

The Harmonised Ancillary Services (HAS) went live on the 1<sup>st</sup> February 2010. Details on previous consultations and on the RA decision papers can be found on the TSOs<sup>3</sup> and All-Island Project<sup>4</sup> websites.

## 1.1 DS3 System Services

Separate to the Annual HAS Consultation is the System Services workstream, which is being carried out as part of the DS3 Programme. The objective of the workstream is to put in place System Services arrangements that facilitate the efficient procurement of sufficient services for the secure operation of the power system both in the short-term and long-term, while complementing the other aspects of the wholesale electricity market.

The first phase of the workstream involved three TSO led industry consultation papers, bilateral meetings and industry forums<sup>5</sup>. It culminated in a set of recommendations that were presented by EirGrid and SONI to the SEM Committee in May 2013. In consideration of the TSOs' recommendations, the SEM Committee published a consultation and subsequent decision on the technical definitions of the proposed services in December 2013. The SEM Committee consultation paper, on the overall system services procurement framework was published in May 2014 and SEM Committee decision on the procurement arrangement of the proposed services has been published in Dec 2014. The SEM Committee decision paper states that a regulated tariff will be set for all services as an interim measure on a one year basis from 1 October 2016 to 30 September 2017. The purpose of this tariff will be to allow the TSOs to procure system services from existing plant in the year 2016-2017 in advance of full transition to the enduring approach for the procurement of system services. As a result, this HAS Consultation paper TY2015-2016 will be the last consultation paper on the existing HAS products.

## 1.2 AS Policy

The decision on the financial arrangements for DS3 System Services<sup>6</sup> made by the SEM Committee was published in Dec 2014. This provides regulatory clarity to the TSOs to allow policy to be developed and implemented.

In the interim, an AS procurement policy which sets out the high level principles for amending existing AS service agreements and for new providers has been developed. The TSOs without prejudice shall contract for services in a manner that is consistent with relevant legislation and statutory obligations. The TSOs will endeavour to purchase from the most economic and efficient sources available at that time, having regard to the attributes of such service and delivery. This may include but not limited to reliability, quality, quantity, location, lead time, deliverability, and diversity. The purpose of the AS procurement policy is to provide clarity to existing and new Ancillary Service providers on the approach that will be undertaken by the TSOs referring to existing HAS products for the interim period until DS3.

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<sup>3</sup> [www.eirgrid.com](http://www.eirgrid.com) and [www.soni.ltd.uk](http://www.soni.ltd.uk)

<sup>4</sup> [www.allislandproject.org](http://www.allislandproject.org)

<sup>5</sup> <http://www.eirgrid.com/operations/ds3/communications/consultations/>

<sup>6</sup> [SEM-14-018]; DS3 System Services Procurement Design and Emerging Thinking; Decision Paper; 19 December 2014

### 1.3 AS Reporting

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

1. The total Reserve payments (POR, SOR, TOR1, TOR2, RR sync, RR De-sync and Static);
2. The total Reserve charges for service under provision (POR, SOR, TOR1 and Static);
3. The total Reactive Power payments (Lagging and leading); and
4. The total Synchronous Compensation payments.

This is reported on an all-island basis and the total payments 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).

### 1.4 Instructions for Response

Respondents to this consultation paper are kindly requested to provide responses, views and comments on the proposals in this document. Responses should be sent to [Amanda.Kelly@Eirgrid.com](mailto:Amanda.Kelly@Eirgrid.com), [AS@Eirgrid.com](mailto:AS@Eirgrid.com) and [Commerical@soni.ltd.uk](mailto:Commerical@soni.ltd.uk).

**Closing date is 5pm Monday, 23<sup>rd</sup> March, 2015.**

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 provided to the Regulatory Authorities.

## 2. AS SERVICES

This section is divided into two parts, the first being the existing AS arrangements and the performance of units during the 2013-2014 tariff year. The second is an update on the status of the Flexibility Services.

In this year's Annual Tariff Consultation the TSOs are proposing the underlying rates should reflect inflation outturn for 2014 together with assuming a reasonable forecast of inflation for 2015-2016 tariff year. As mentioned in Section 1.1, there is a wide-ranging review of System Services being undertaken by the TSOs and it is expected that changes to services and rates will be proposed in due course as part of this review.

Flexibility Services were introduced in the 2011-2012 Consultation paper as a mitigation measure for high constraints costs. At that time, the TSOs stated that Flexibility Service contracts would be entered into on a limited basis and where there is a value to the system. The Flexibility Services were Open Cycle Mode, Reduced Time to Synchronise, Lower Minimum Generation or Parking and Synchronous Compensation.

Further to this, in the 2012-2013 HAS Consultation paper, the TSOs stated that they were not in a position to propose a standard service rate, however the TSOs would consider a tender process whereby a competitively priced service could be obtained. On the 20<sup>th</sup> December 2012, the TSOs issued a tender proposal to all AS providers who would be connected as of October 2013. The tender invited proposals on two flexibility services, namely Reduced Time to Synchronise Service and Multi-Mode Operation (i.e. Open Cycle Mode). Section 2.2 provides an update on this process.

### 2.1 Existing AS Services

The TSOs, taking into account their respective statutory obligations and licence conditions<sup>7</sup>, continuously review AS services to ensure that they deliver efficiency, reliability and value for money to the end user.

The TSOs have seen an improvement in compliance with Grid Code requirements by a number of generating units. Improvements have also been seen in the additional reactive power provision from some units either to comply with Grid Code or to provide in excess of Grid Code. This has been a very welcome development.

The TSOs are proposing to continue the AS services and rates for this upcoming tariff year 2015-2016 with the inclusion of the assumed inflation rate.

#### 2.1.1 Static Frequency Service

Static frequency response is included in the overall reserve provision on the island and is provided by interconnectors. The service is designed to respond to high and low frequency events by altering the interconnector flow, initiated by at present frequency trigger values. The interconnectors are facilitating reserve exchange between power systems and the reserve provided is non-regulating. Consequently the TSOs consider the value to the system to be less than reserve provided by a dynamically regulating conventional source.

<sup>7</sup> On June 20th 2001, the Commission for Energy Regulation (CER) issued a Transmission System Operator (TSO) Licence to EirGrid plc. pursuant to Section 14 (1) (e) of the Electricity Regulation Act, 1999, as inserted by Regulation 32 of Statutory Instrument (SI) No. 445 of 2000 - European Communities (Internal Market in Electricity) Regulations 2001

On July 3rd 2007, The Department of Enterprise, Trade and Investment, in exercise of the powers conferred by Article 10(1) (b) of the Electricity (Northern Ireland) Order 1992 granted SONI Limited a TSO licence.



The rate for Provision of Static Frequency Service was set for 2012-2013 at 50% of the dynamic rates for service provision of the POR, SOR, TOR1 and TOR2. A charge for non-provision of this service is liable, in line with all other AS categories. The 2014-2015 rate for static reserve is unchanged for 2015-2016 except for an inflationary rate increase.

### **2.1.2 Ramping During and After an Under Frequency Event**

It is the TSOs' expectation that during an under frequency event Generating Units will increase MW output to assist restoration of the system frequency shortfall and respond in line with the frequency governor droop set out in the technical parameters as agreed in the HAS agreement. The TSOs have observed in some cases Generating Units that were ramping pre-event continue to ramp (MW output increase or decrease) once the system frequency has been restored. After a generation shortfall event some elements of the pre-event generation will require to be redispatched. Units that resume ramping to pre-event dispatch levels especially in a downward direction threaten restoration of system security in the already stressed immediate post event environment. The TSOs will continue to monitor and discuss with generators where necessary.

For clarification, it is the TSOs' expectation that post restoration of the system frequency, the unit should respond in line with the frequency governor droop set out in the technical parameters as agreed in the HAS agreement. In other words, from a machine perspective, they must behave as per their droop settings at the time of the event and they must not resume any pre event ramping until instructed by the TSOs. As per Grid Code the event requires response via free governor action and once this has been provided the machines should maintain this new frequency related output until they receive new dispatch instructions. After the event, the TSO will issue new dispatch instruction, if the unit had been ramping pre- event, as required.

### **2.1.3 Ramping Before an Under Frequency Event - Pre-Event Assessment**

It has been raised with the TSOs' that the existing reserve provision calculation has a limitation whereby if a unit is ramping up or down pre-event then the calculation may incorrectly calculate the expected output of the unit. The existing design analyses the pre-event output and frequency in the period 30 to 60 seconds before the event start time.

If the unit is ramping pre-event then the pre-event output and frequency should be considered closer to the event start time and averaged over a shorter timeframe. The TSOs are proposing that if a unit is ramping pre-event, then the pre-event output and frequency is the average from 3 to 5 seconds before the event start time instead of the existing design of 30 to 60 seconds.

### **2.1.4 Influence of RoCoF on POR Performance Assessment for Synchronous Generation Units**

Following investigations of Generation Units' response to recent frequency transients, the TSOs have concluded that the effect of a unit's inertia response should be taken into account as part of the assessment of Primary Operating Reserve (POR) in the event of frequency transient events where the frequency nadir occurs before the start of the Primary Operating Reserve (POR) period (5 seconds) and there is a subsequent rapid rise in system frequency within the POR timeframe.

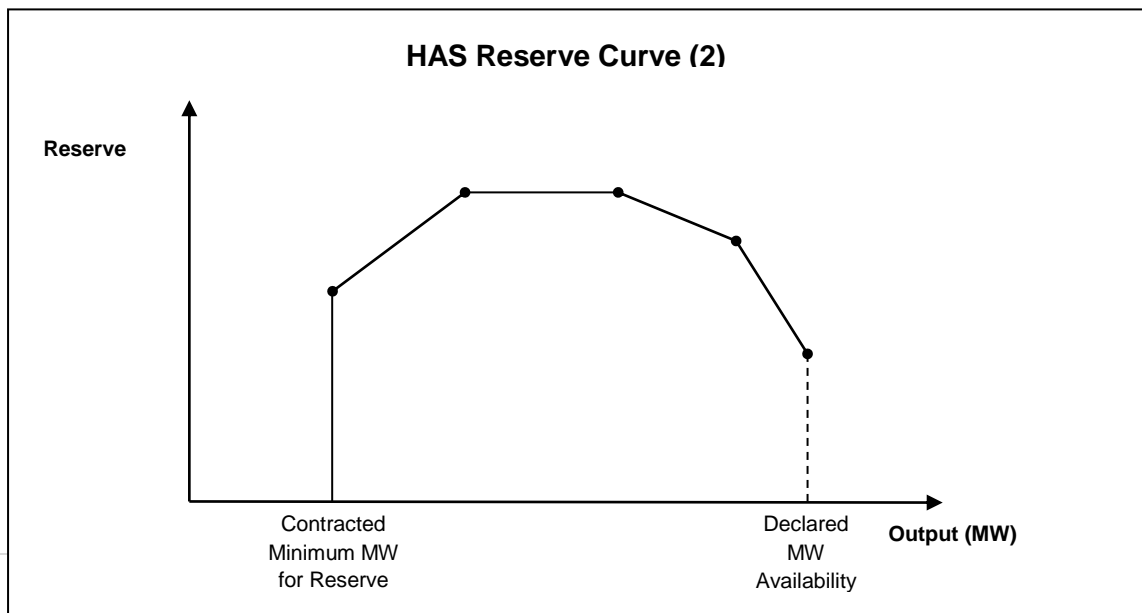
The POR response assessment, as contained in the Harmonised Ancillary Services (HAS) contracts, is carried out at the frequency nadir during the POR time period 5 to 15 seconds. If the frequency nadir is before 5 seconds the response assessment is carried out at 5 seconds. With a frequency nadir that occurs before 5 seconds the frequency will be rising again at 5 seconds and the unit will be partly absorbing energy from the system, the volume depending on the generators inertia characteristics and the positive Rate of Change of Frequency (RoCoF). The inertia effect with absorption of energy will reduce the indicated POR performance at 5 seconds.

A Grid Code Review Panel working group has been set up which aims to develop an assessment methodology to be used by the TSOs, when deciding whether a generation unit has complied with its required POR response, under the HAS agreement. It is anticipated that the recommendation from the working group will provide clarity for the industry and allow policy to be developed and implemented.

In the interim, the TSOs will work with the service provider(s) regarding the inertia during POR assessment on all applicable chargeable under frequency events.

### 2.1.5 Refinement to Operating Reserve Calculation (Multiple AS Values & Decrement Rates)

As part of last year's Annual Tariff Consultation the TSOs endeavoured to implement a design refinement to the settlement systems in Ireland to allow for more complex reserve curves, in line with the capabilities in the Reserve Constraint Unit Commitment (RCUC) applications used in the control rooms. The settlement systems in Northern Ireland already allow for this capability. An example of the new curve is shown in Figure 1 below. The system change required to introduce these modifications to the HAS settlement system in Ireland has now completed. The TSOs request that the Service Providers who believe they would benefit from this change to their unit's existing contract values to reflect their true capabilities should contact the TSO in Ireland. The TSOs would like to note that contracting for reserve curve is an amendment to the existing HAS contract. Therefore, it will be subject to the same high level principles set out in the AS procurement policy as described in section 1.2 above.



## 2.2 Flexibility Services

Significant Dispatch Balancing Costs during the Tariff Year 2010-2011 resulted in the TSOs' focusing on procuring additional services which would assist with mitigation of these costs. It was decided to explore a number of short term AS services which would offer improvements to the operational flexibility of the power system and mitigate high constraint costs. The services were as follows:

1. Reduced Time to Synchronisation from Instruction (also referred to as 'warming');
2. Flexible multimode operation;
3. Lower minimum generation with/without reserve; and
4. Synchronous Compensation.

Full details on each of these services can be found in last year's consultation, SEM-13-020<sup>8</sup>.

As set out in the Consultation Paper for 2011-2012, the services would be contracted on a unit specific basis. The services must provide an overall system benefit and must provide value for money for the consumer. In terms of payment, the services would be paid for based on their utilisation and would not be availability based payments. The SEM Committee decision for Tariff year 2011-2012 requested HAS rates to be proposed by the TSOs for the tariff year 2012-2013, however, in the HAS Consultation paper for that tariff year, the TSOs stated that were they are not in a position to propose a standard service rate. Instead, the TSOs would consider a tender process whereby a competitively priced service could be obtained. On the 20<sup>th</sup> December 2012, the TSOs issued a tender proposal to all AS providers who would be connected as of October 2013. The tender invited proposals on two flexibility services, namely Reduced Time to Synchronise Service and Multi-Mode Operation (i.e. Open Cycle Mode).

The TSOs received five tender applications for the provision of Reduced Time to Synchronise for the 2013-14 tariff year. Two tender applications were notified and omitted from further participation. The TSOs have been engaging with the remaining three service providers to finalise the details. These are expected to be concluded shortly.

The TSOs received three tender applications for the provision of flexible multi-mode operation for the 2013-14 tariff year. Two tender applications were notified and omitted from further participation. The remaining one has been omitted by the TSO in 2014.

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<sup>8</sup> [www.allislandproject.org](http://www.allislandproject.org)

## 2.3 Dynamic Frequency Response from an Interconnector

In the 2014-15 consultation paper, the TSOs have been investigating recent low frequency transients where the frequency has recovered rapidly and to a value above 50 Hz within the POR timeframes partly due to the influence of fixed amounts of static reserve. To provide an improvement in frequency control during transients the TSOs are proposed to refine the existing provision of static reserve from the interconnectors to become a dynamic product that would only be delivered after a frequency threshold (high or low) has been breached. This Frequency Response would be provided in the same manner as a turbo-generator response having a settable governor droop (potentially 4%) and, similar to a machine, there would be a cap on the quantity of reserve that would be provided. This would enable the interconnector reserve to be utilised in a much more intelligent manner and would therefore provide enhanced benefits to both the TSOs and the consumer. The TSOs consider the value to the system to be less than that provided by a dynamically regulating conventional source as a significant threshold must be breached, either above or below the nominal 50 Hz, before any triggering of the reserve actually takes place.

The desire to change the existing interconnector static reserve functionality came about from increasing operational issues occurring on the power system. There is evidence that following loss of generation events there are overshoots beginning to be experienced resulting in excessive frequency recovery. Preliminary investigations have identified that providing a dynamic frequency response modification to the existing interconnector static reserve would help alleviate this issue.

In the 2014-2015 recommendation paper<sup>9</sup> The TSOs proposed to conduct a more robust technical analysis to further determine the benefits from the static and dynamic interconnector. This technical analysis is on-going. A separate consultation will be conducted by the TSOs prior to making any firm recommendation to the SEMC. The consultation will either be included in the DS3 system service changes or in a separate consultation depending on the urgency required. It is the TSOs' view that ultimately where there are economic benefits available to customers through operation of the interconnectors, the change should be implemented.

## 2.4 RoCoF Incentive

It is the TSOs' expectation to introduce a RoCoF incentive in line with the RA's decision.

The RA's RoCoF modification to the Grid Code decision paper<sup>10</sup> acknowledges that in addition to the costs associated with the studies there may be operational cost implications with higher RoCoF events for generators.

On 29<sup>th</sup> January 2015, the SEM Committee requested the TSOs to develop and submit a proposal for a RoCoF rate or such other mechanism as the TSOs may recommend to act as an incentive for generators to complete compliance investigations in a timely manner. The TSOs will carry out this work in 2015 with a separate consultation.

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<sup>9</sup> Harmonised All-Island Ancillary Services Rates Recommendation Paper; 9 July 2014

<sup>10</sup> Rate of change of Frequency (RoCoF) Modification to the Grid Code Decision paper CER/14/081 published 4<sup>th</sup> April 2014  
Decision Paper on the Rate of Change of Frequency Grid Code Modification published 7<sup>th</sup> May 2014

### 3. PROPOSED RATES AND CHARGES

The rates and charges for HAS are proposed in Tables 3.1 and Table 3.2 below. Table 3.3 provides the HAS rate for the associated costs for Synchronous Compensation service and Static Frequency service.

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 have used the same methodology for 2014-2015 but the 5-day average rate is based on the last five working days of July instead of August, in order that the Harmonised Ancillary Services & Other System Charges GBP rates are available sooner. In 2015-2016, the same methodology will apply. All rates and charges increase with assumed forecast blended inflation rate of 1%<sup>11</sup>.

The Harmonised Ancillary Services rates are initially calculated in Euros. In determining the associated sterling rates, the TSOs apply a methodology consistent with that applied under the Trading and Settlement Code for the calculation of the annual capacity exchange rate i.e. the average of the forwards rates for the forthcoming year as taken over a period of 5 days prior to tariff and payment setting.

In the past the TSOs have received comments in relation to exchange rate volatility both within and between years and the degree to which this should be reflected in the derivation of Harmonised Ancillary Services rates. In terms of movement in exchange rates between years, the TSOs recognise that in single rate setting in a dual currency context the relative payments to generators in one or other jurisdiction, as well as the associated costs to customers across the island, has the potential to vary as and when exchange rates move. This means that in the context of euro payment setting, sterling participants may see the corresponding sterling payment rates rise or fall over time between years.

The TSOs recognise this issue. However, the very premise of the Harmonised Ancillary Services arrangements is the provision of single harmonised payment rates to all participants across the island; The Annual tariff and payment setting affords generators stability and predictability with respect to payments. To reflect longer term exchange rate movements between jurisdictions would be to deviate from this and the TSOs believe would not be consistent with the premise of the HAS arrangements.

In this consultation paper the TSOs have not proposed any such amendments and rather simply updated the rates for a blended estimate of forecast inflation in the two jurisdictions.

The rates proposed are displayed with 2 decimal places in Euro. The TSOs would like to clarify that 4 decimal places are used in the calculation of the inflationary Increase.

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<sup>11</sup> 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 2-2.5%. Forecasts of HICP inflation in Ireland are general around 0.5%. On this basis, and recognising the relative balance between Ireland and Northern Ireland, and indeed the somewhat lower than originally forecast expected outturn inflation for 2014/15 the TSOs' view is that a blended rate of 1% for the forthcoming 2015/16 period is appropriate.

Service	Categories	2014-2015	2015 - 2016
Reserve	Primary Operating Reserve	€ 2.34 / MWh	€ 2.36 / MWh
	Secondary Operating Reserve	€ 2.24 / MWh	€ 2.27 / MWh
	Tertiary Operating Reserve 1	€ 1.87 / MWh	€ 1.89 / MWh
	Tertiary Operating Reserve 2	€ 0.93 / MWh	€ 0.94 / MWh
	Replacement Reserve (Synchronised)	€ 0.20 / MWh	€ 0.21 / MWh
	Replacement Reserve (De-Synchronised)	€ 0.54 / MWh	€ 0.54 / MWh
Reactive Power	Reactive Power Lagging	€ 0.13 / MVArh	€ 0.14 / MVArh
	Reactive Power Leading	€ 0.13 / MVArh	€ 0.14 / MVArh

**Table 3.1: Proposed Harmonised Ancillary Service Rates for 2015-2016 tariff year**

Reserve Parameter	Rate
Primary Operating Reserve Charge Period	30 days
Secondary Operating Reserve Charge Period	30 days
Tertiary Operating Reserve 1 Charge Period	30 days
Static Frequency Charge Period	30 days
Event Frequency Threshold	49.5 Hz
Reserve MW Tolerance <sup>12</sup>	1 MW
Reserve Percentage Tolerance	10 %

**Table 3.2: Charges for non-provision of all reserve categories for 2015-2016 tariff year**

Services	Categories	2014-2015	2015 - 2016
Flexibility Services	Synchronous Compensation	€2.98 / hr	€3.01 / hr
Reserve	Static Frequency Service	€3.69 / MWhr	€3.73 / MWhr

**Table 3.3: Proposed HAS rates for Synchronous Compensation and Static Frequency service for 2015-2016 tariff year**

## 4. SUMMARY AND NEXT STEPS

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 clear in the response as the comments will be published on the TSOs' websites<sup>13</sup>. Please note that, in any event, all responses will be provided to the RAs. The closing date for comments is **5pm Monday, 23<sup>rd</sup> March, 2015**.

<sup>12</sup> The Reserve tolerance will be greater of the Reserve Percentage Tolerance of the expected Reserve provision or the Reserve MW Tolerance when a charge is applicable.

<sup>13</sup> [www.eirgrid.com](http://www.eirgrid.com) and [www.soni.ltd.uk](http://www.soni.ltd.uk)