

Harmonised Ancillary Services 2012-2013

Recommendations Paper

20th June 2012



EXECUTIVE SUMMARY

The TSOs have consulted on the annual rates and charges for the Harmonised Ancillary Services (HAS) for the tariff year 1st October 2012 to 30th September 2013. The regulator authorities' January 2010 Decision paper requires that the TSOs consult annually on any future services or rates. The AS consultation paper was published on 3rd April 2012 and the TSOs have received comments from fourteen (14) respondents. This paper summarises the responses received and provides a clarification where required. Having reviewed the responses and taking into account the participants views, the TSOs have the following recommendations:

1. For the upcoming tariff period running from the 1st October 2012 to 30th September 2013, the TSOs proposed to maintain the current approved schedule of services;
2. Given the System Services Review as part of the DS3 programme being undertaken, the TSOs would not seek to alter the rates at present pending a future recommendation in this regard.
3. Regarding the flexibility services, the TSOs intend to investigate a tender process for some flexibility services but will contract as required in the interim. In terms of the design of the flexibility services, the following is proposed:
 - Reduced Time to Synchronise introduced in the 2011/2012 tariff year. The TSOs have set out two possible options to incentivise shorter synchronising times and are proposing to progress with option 2 following discussion with the RAs;
 - Multi-mode operation was introduced in the 2011/2012 tariff year. The TSOs have set out two possible options which are designed to ensure unnecessary risk is not associated with providing this service and are proposing to implement option 2 taking into account the recommendation from participants;
 - Parking or Lower Minimum Generation introduced in the 2011/2012 tariff year. Again two options have been provided by the TSOs to help incentivise generators to provide Parking or Lower min gen services and based on this feedback the TSOs are proposing to retain the status quo arrangements whereby the SEM provides the signal to have a lower minimum generation and contract only where there is a system benefit;
 - Synchronous Compensation service introduced in the 2011/ 2012 tariff year. A harmonised rate of €2.88/hr when operating in synchronous compensation mode in addition to payments for reactive power, start costs and import energy is recommended;
4. A new HAS rate of €3.57/MWhr for the existing Static Frequency Service is proposed to be introduced for the 2012 / 2013 tariff year. In regard to the basis of how the rate was developed, the HAS rate reflects a reserve product from a source that does not provide frequency regulation and whose energy is sourced from another power system i.e. GB;
5. The HAS payments (and reserve charges) are proposed to be adjusted for inflation of 2% for the 2012-2013 tariff year to reflect the increased costs to service providers.

ABBREVIATIONS

AS	Ancillary Services
CCGT	Combined Cycle Gas Turbine
DBC	Dispatch Balancing Costs
HAS	Harmonised Ancillary Services
OCGT	Open Cycle Gas Turbine
OSC	Other System Charges
RAs	Regulatory Authorities (CER & NIAUR)
SEM	Single Electricity Market
SMP	System Marginal Price
SONI	System Operator of Northern Ireland
TSO	Transmission System Operator

1. INTRODUCTION

The purpose of this paper is to recommend to the Regulatory Authorities (RAs) in Ireland and Northern Ireland the proposed rates and changes for the 2012/2013 tariff year taking into account the comments received from the public consultation conducted by the Transmission System Operators (TSOs) on the Harmonised Ancillary Services Consultation paper¹. The TSOs published the consultation paper for HAS¹ on 3rd April 2012 and received 14 responses from participants in both jurisdictions.

For the upcoming tariff period running from the 1st October 2012 to the 30th September 2013, the TSOs have proposed to maintain the current approved schedule of services. The TSOs also intend to introduce harmonised rates for a number of new flexibility services introduced in the 2011 /2012 tariff year consultation, on a limited basis, to mitigate Dispatch Balancing Costs.

The TSOs have outlined in this years' consultation paper that a harmonised rate for some flexibility services have been difficult to construct and in the majority of cases the respondents have confirmed that a harmonised rate would not be feasible. The TSOs are proposing a HAS rate of €2.88/hr for the provision of Synchronous Compensation. The rate will be paid when operating in synchronous compensation mode in addition to payments for reactive power, start costs² and import energy.

This year the TSOs would like to propose a harmonised rate for the provision of static reserve from interconnectors. Moyle interconnector has been providing static reserve for a number of years and with the commissioning of the East West Interconnector (EWIC), the TSOs are proposing to harmonise an ancillary services rate for static reserve provision. The TSOs propose the introduction of a HAS rate for the Static Frequency Service for the 2012 / 2013 tariff year with a recommended HAS rate of €3.57/MWhr equivalent to 50% of the POR, SOR and TOR categories.

Following a review of comments on the HAS consultation paper the TSOs are now making these recommendations to the RAs. The TSOs will then publish a revised AS Statement of Payment and Charges for the 2012-2013 tariff period.

The TSOs received 14 responses from the following parties:

Party	Abbreviation
AES Kilroot Power Ltd & AES Ballylumford Ltd	AES
Bord Gáis Energy	BGE
Bord Na Móna	BnM
Endesa Ireland	Endesa

¹"Harmonised Ancillary Services; Consultation" 3rd April 2012, available at www.EirGrid.com and www.soni.ltd.uk

² Implementation of payments for start costs is being reviewed by the TSOs in respect of this design

Energia	Energia
ESB Power Generation	ESB PG
Indaver	Indaver
IWEA	IWEA
National Electricity Association of Ireland	NEAI
NIE Energy Limited Power Procurement Business	PPB
Synergen	Synergen
Tynagh Energy Limited	TEL

Three confidential responses were received to this consultation paper. The responses which were not marked confidential can be found attached to this recommendations paper. The TSOs welcome the high number of responses to the consultation and will be in discussions with each of the respondents in due course.

2. ANCILLARY SERVICES CONSULTATION

2.1. SYSTEM SERVICES REVIEW AS PART OF DS3 PROGRAMME

2.1.1. Introduction

Separate to the annual HAS Consultation the System Services review, under the DS3 Programme, is being carried out with the objective of reviewing System Services arrangements. The review will 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.

This separate consultation process is being carried out over the next 12 months, in conjunction with the RAs. The TSOs will be undertaking a multi-stage consultation process, to incorporate the views of industry on the arrangements for System Services. In addition to the formal consultation stages, there will be a number of industry forums and opportunities for bilateral meetings.

A preliminary consultation was published by the TSOs in December 2011. The purpose of this document was to present the background and context, the proposed approach to the System Services review and to seek the views of the industry on the scope and nature of the review. In particular, the TSOs are seeking views on the approach to remuneration, the contractual arrangements and the eligibility of providers of System Services. The responses to this preliminary consultation will then inform the development of options for products, which will be presented in a second consultation expected to be published in Q2 of 2012. The TSOs are currently investigating the specific definitions of System Services and the required quantities over the medium to long term and it is expected that this will form a key input to the second consultation.

2.1.2. Respondents Comments

Five comments (Endesa, IWEA and PPB and 2 confidential) were received in relation to System services review as part of the DS3 Project.

Two respondents (IWEA, PPB) welcome the work being carried out under the DS3 project and believe that Ancillary Service payments have an important role to play in incentivising the appropriate plant going forward.

One respondent (Endesa) considers that it is inappropriate for the TSOs to hold any opinion on generator revenue adequacy or to develop contractual structures and believe the TSOs' role must be limited to advising the RAs as to the needs of the system from a technical point of view

One confidential respondent noted that a response was provided to the DS3 consultation.

One confidential response stated that they look forward to the System Services Review under the DS3 process to engage in shaping the future AS arrangements.

2.1.3. TSOs' Response

The TSOs welcome participant's views on the future developments in respect of System Services.

2.1.4. TSOs' Recommendation

No recommendation is required as this is subject to a separate consultation process outside of the annual HAS rates consultation.

2.2. EXISTING AS SERVICES

2.2.1. Introduction

The TSOs, taking into account our respective statutory obligations and licence conditions³, are continuously reviewing system services to ensure that they deliver efficiency, reliability and value for money to the end user.

Over the last 12-18 months the TSOs have seen a notable improvement in the contracting for reserve in excess of minimum Grid Code Requirements by a number of generating units. This was particularly important in the context of mitigating the high constraints costs seen during the 2010-2011 tariff year. 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.

On the down side, reserve provision, when triggered by a frequency event, can vary significantly between units contracted to provide reserve. The TSOs are working with the generators concerned to understand why this is occurring as reliability of reserve delivery is an important aspect of system operation and mitigation of constraints costs. All of the events were followed up directly with the AS provider reminding the generators in question of their Grid Code and AS agreement obligations. The TSOs continue to work with generators on their reserve performance facilitating Grid Code testing as required.

2.2.2. Respondents Comments

Three comments were received (Endesa, Indaver and PPB) in relation to Existing AS Services.

One respondent (Endesa) does not believe the current rates paid for AS services reflect the actual cost of providing these services or their value to the system.

³ 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.

Two respondents (Endesa, PPB) are disappointed that AS allowances have not been increased proportionally in anticipation to a need for higher levels of service; and that payment for services should also be adjusted annually for inflation.

One respondent (Endesa) does not consider that it is appropriate to set a single AS allowance for both jurisdictions.

One respondent (Indaver) supports the proposal to continue the AS services and rates for this upcoming tariff year 2012-2013 and has found no compelling reason to alter the current services and rates.

2.2.3. TSOs' Response

As there is a full review of System Services being conducted by the TSOs at present it would be premature to alter the rates or services. However, the TSOs do consider merit in adjusting the rates for inflation having due regard to the effectiveness of the rates in reflecting the costs to service providers.

2.2.4. TSOs' Recommendation

The TSOs recommend adjusting the AS rates for inflation of 2% to ensure the appropriate signals are given to the AS providers.

2.3. FLEXIBILITY SERVICES

2.3.1. Introduction

Significant Dispatch Balancing Costs during the Tariff Year 2010-2011 resulted in the TSOs focus 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 TSOs endeavoured to include these services in the 2011/2012 tariff year consultation paper with a view to implementing them as harmonised services for the 2012/2013 tariff year.

The services were as follows:

1. Reduced Time to Synchronisation from Instruction (also referred to as 'warming');
2. Flexible multimode operation of CCGTs;
3. Lower minimum generation with/with-out reserve; and
4. Synchronous Compensation

As set out in Consultation Paper for last year, the services would be contracted on a unit specific basis i.e. not all units which provide existing AS services will qualify. The services must provide an overall system benefit and value for money for the consumer. In terms of payment, the services will be paid for based on their utilisation and will 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. This section explores the feasibility and appropriateness of a HAS rate in each case.

Having due regard to the SEM Committee requirement to investigate a harmonised rate where possible, the TSOs outlined in the consultation paper that the development of a rate is problematic given the specific costs for each generator. In 3 out of the 4 services (reduced time to synchronise, multimode operation and lower min generation), the TSOs are not in a position to propose a standard service rate. The TSOs requested in the consultation all participants' views on the merits of proposal tender process. It was confirmed that the tender would be conducted jointly by EirGrid and SONI.

2.3.2. Respondents Comments

Five comments were received (Endesa, ESB PG, Indaver and Synergen) in relation to Flexibility services.

One respondent (Endesa) stated that a tender process should be employed for all flexibility services beyond Grid Code requirements where the TSOs are not in a position to propose a standard service rate as suggested in the paper.

One respondent (ESB PG) are amenable to the concept of a tender process. However believes an annual product may not allow time for a generator to recover any investment and may reduce the likelihood of generators engaging in the tender process.

One respondent (Indaver) supports the harmonisation of the AS introduced in the 2011/2012 tariff year and feel the AS have strengthened the transmission system; harmonisation of these services is viewed as a positive step.

One respondent (Synergen) believes that the provision of flexibility services should be unit specific, and undertaken on a voluntary basis.

2.3.3. TSOs' Response

The TSOs welcome participant's views on the tendering option for flexibility services.

2.3.4. TSOs' Recommendation

The TSOs are proposing to investigate further a tender process for the procurement of flexibility services in the specific case of multi-mode operation and reduced time to synchronise. The work for this tender process will commence following the publishing of this recommendations paper and the TSOs will ensure all providers are communicated on the tender publication in due course.

2.4. REDUCED TIME TO SYNCHRONISE

2.4.1. Introduction

Operationally it would be beneficial to reduce the synchronising timeframe as much as technically possible in order to have greater flexibility, to reduce the potential of carrying unnecessary generation and in order to reduce constraints costs. Currently certain units have long notification

times and thus must be dispatched in advance of real time in anticipation of wind, demand and Interconnector changes. This leads to higher costs on the system. As forecasting errors reduce closer to real time shorter notification times would allow a more accurate unit commitment with the a resulting decrease in constraints costs.

The TSOs believe that there are two options to incentivise shorter synchronising times

1. The SEM could include a synchronising time in the market schedule
2. A specific payment through HAS could be made for a reduction in time to synchronise.

The TSOs recognise that there is a wide variation in costs between generators in terms of changing plant or procedures to reduce synchronising time. This makes a single HAS rate for the service difficult to obtain. In addition, the TSO would favour Option 1 which provides for the inclusion of synchronising times in the SEM market schedule and are currently investigating how this change can be brought forward for consideration. The TSOs are interested in participants' views on the options proposed above and the preference to include synchronising times in the SEM market schedule.

2.4.2. Respondents Comments

Thirteen comments were received (AES, BGE, BNM, Endesa, ESB PG, Indaver, NEAI, PPB, Synergen, Tynagh and Two confidential) in relation to reduced time to synchronise.

Six respondents (Endesa, ESB PG, NEAI, Synergen, Tynagh and one confidential) Believe that introducing a synchronising time in the market schedule is outside the scope of AS and would require modifications to the Trading and Settlement Code. Any discussion of this option should be reserved for the Modifications Panel.

One respondent (AES) notes the TSOs preference to include synchronising time within market schedule. AES stated they would be Interested in providing reduced time to synchronise if appropriate payment mechanism is in place.

Two respondents (AES, PPB) do not believe sufficient analysis has been completed and a separate consultation on this issue which should be completed.

One respondent (BGE) believe generators exceeding their Grid Code requirement should be incentivised to do so but that payment should remain outside of the market schedule.

One respondent (BNM) supports the rationale for reducing the nominal time to synchronise. Of the two scenarios outlined a specific payment through HAS is preferred.

One respondent (ESB PG) believe payment should be made to all generating units which have shorter times to synchronise and not just those which improve as a result of the new AS.

One respondent (Indaver) supports the proposal to include a synchronising time in the market schedule to increase overall flexibility.

One respondent (PPB) believes considering synchronising times when compiling the market schedule is an option which should be considered and believe in principle that it is correct to reward flexible plant.

One respondent (Tynagh) believe it would be possible to incentivise reducing the synchronising time through specific HAS payment and that payment could be technology specific to allow for variation in costs between different generators.

One confidential respondent stated that the idea of including synchronising times in the market schedule may have merit and is something they would certainly consider supporting subject to more detailed information and consideration. They suggest the continuation of specific payments through HAS for reduction in time to synchronise and the exploration of option 1 in parallel with this.

One confidential respondent believe payment for this service should be inversely proportional to the time to synchronise on a graded basis and that similar incentive mechanism should be applicable to new plant also.

2.4.3. TSOs' Response

The TSOs welcome the range of participants' views on the reduced time to synchronise service and the recognition by some respondents of the importance of this service to the power system. The TSOs believe generators need to be incentivised in respect of this flexibility service and that the SEM modification process would be the most appropriate approach as the costs borne by the power system arising from a unit's longer notification times have a consequential impact on the constraints costs.

2.4.4. TSOs' Recommendation

The RAs have advised the TSOs that their preference is option 2. The TSOs are proposing to develop a tender process for this service which would incentivise different plant types to reduce notification times.

2.5. Multimode Operation

2.5.1. Introduction

This service provides for a combined cycle unit to switch to open cycle or to start in open cycle when called by the TSO. There is a number of Combined Cycle Gas Turbine (CCGT) generating units on the island which have the technical capability of operating in Open Cycle Gas Turbine (OCGT) mode. Operating in CCGT mode is much more efficient compared with operating in OCGT mode as the waste heat from the gas turbine is passed through a heat exchanger and used to produce steam, which in turn is used to generate additional energy. However, CCGTs typically offer less operational flexibility than an OCGT, especially when required to respond quickly to changes in system events at short notice. The TSOs consider it prudent to have the flexibility to request a unit to switch mode where there is a system benefit to do so⁴.

The TSOs have investigated a harmonised rate for this service but have found it difficult to recommend a rate that is not dynamically changing in line with fuel costs. The costs that would be

⁴ Further information on the design can be found in the 2011-2012 Consultation paper.

remunerated include fuel, maintenance and an incentive. The fuel costs are associated with the decrease in efficiency between the closed cycle and open cycle mode of operation. The following options for payment of this service are:

1. Annually fixed fuel price i.e. a modelled view of fuel costs proposed with the annual consultation resulting in a fixed HAS rate
2. Actual fuel price which would result in a two-part rate whereby the maintenance and incentive would be fixed while the fuel costs would dynamically change in line with fuel cost movement.

Regarding Option 2, this service could be designed where a daily cost is submitted to the TSO for the open cycle costs. To recommend a fixed rate which is set in advance of the trading day could introduce commercial risk and could result in lack of interest in this service should the costs not be recoverable.

The TSOs would prefer Option 2 as this minimises the commercial risk to parties and are thus proposing the rate would be the additional running costs for the period of running (i.e. fuel costs and maintenance) in open cycle plus an incentive. The TSOs requested participant's views of these options and the feasibility of a tender process to obtain a standard rate.

2.5.2. Respondents Comments

Ten comments were received (AES, BGE, BNM, Endesa, ESB PG, Indaver, PPB, Synergen and Two confidential) in relation to Open Cycle Services.

One respondent (AES) preference at this stage is Option 2 which would include the actual recovery of costs incurred in moving to open cycle.

One respondent (AES) believes that remuneration should be given to units who have to declare down to facilitate moving from open cycle to combined cycle mode.

One respondent (BGE) believe incentivising the multi-mode operation of CCGT plants is a short term solution to the TSO's need for flexibility and while this approach may meet the immediate requirement for flexibility but it does so at the expense of the long term availability of capacity on the system.

One respondent (BNM) sees merit in increasing the flexibility of the overall system by operating CCGTs in OCGT mode.

One respondent (Endesa) does not believe it is appropriate to develop incentives for a specific generation technology and that the TSOs should set out the services they require.

One respondent (ESB PG) believe the service is unlikely to be particularly attractive but are amenable to the concept of a tender process.

One respondent (Indaver) supports Option 2 for this service but believe flexible non-CCGT generation plants are recognised and their inclusion in providing this or a similar service is explored.

One respondent (PPB) prefers option 2 in the consultation paper. It is recommend that service providers provide SO's with a set of conversion factors which can be used to convert the commercial offer data submitted for combined cycle operation into commercial data required for open cycle operation.

One respondent (Synergen) concurs with the TSO's view that a harmonised rate for the provision of this service is problematic and believes that payments based on actual incurred costs would be preferable.

One confidential response believes none of the options presented are appropriate or desirable.

One confidential respondent has concerns over the possible reduction in system inertia of bypassing the steam turbines of too many CCGTs at any one time.

2.5.3. TSOs' Response

The TSOs welcome the range of views in respect of this service with the majority of respondents favouring option 2 which is the TSO's preference. The TSOs are considering the design of a tender process for this service including the point made by one respondent that these services need to reward non-CCGT as well as CCGT plant as applicable. One respondent was concerned with the possible reduction in system inertia if this service were to be called from a number of CCGTs however this is not likely to occur since the TSOs are responsible for maintaining inertia through the dispatch the plant to/from open cycle mode. The TSO's would like to clarify that a generator dispatched to multimode operation will not have their availability reduced if the steam turbine is still available.

2.5.4. TSOs' Recommendation

The TSOs are proposing where applicable to contract on the basis of option 2 and in parallel the TSOs are proposing to design of a tender process for this service which would incentivise both CCGT and non-CCGT plant.

2.6. PARKING OR LOWER MINIMUM GENERATION

2.6.1. Introduction

In the 2011-2012 consultation paper, the TSOs asked for participants' opinions on the need to incentivise the lowering of Minimum Generation and described the number of units which already reduced their minimum generation in the SEM for commercial reasons as the market schedule takes account of minimum generation in the optimisation algorithm. The options for a HAS rate are as follows:

1. Maintain the status quo with the SEM incentivising lower minimum generations in the market schedule
2. Provide a HAS rate for this service which could be generation-type dependent e.g. a separate HAS rate for coal and gas plant

Given the majority of the respondents agreed that it should not be incentivised through HAS and the TSOs agree in principle with this view, the TSOs preference is for Option 1. In specific circumstances, the TSOs do consider it worthwhile to contract for a lower minimum generation or parking services where there is a benefit to the power system in doing so and the cost of providing a reduction in minimum load or minimum generation would not be recovered by the SEM. The TSOs were interested in participants' views of the options proposed.

2.6.2. Respondents Comments

Eight comments were received (AES, BNM, Endesa, ESB PG, Indaver, Synergen and two confidential) in relation to Parking or Lower Minimum Generation.

One respondent (AES) believes option 1 seems appropriate in relation to single fuel generating units. They also believe there is merit to contracting directly with a generator for Dual-rated units.

One respondent (BNM) supports the retention of the status quo.

One respondent (Endesa) considers that investors would require a long-term contract (10-15 years) to make this investment worthwhile. They believe the current incentives will not result in lower minimum generation levels for CCGTs.

One respondent (ESB PG) does not believe that status quo is an option. They believe any plant which has a minimum generation lower than the Grid Code requirement should receive an incentive payment and are in favour of the TSO contracting bilaterally for Parking Services.

One respondent (Indaver) supports the proposal of a HAS rate or contracts for parking or lower minimum generation which would be generation type dependent. They have asked for clarity as to how SEM currently incentivises lower minimum generations (as per status quo) for priority dispatch plant1 as illustrated in the SEM decision SEM-11-062.

One respondent (Synergen) considers that at this time that commercial incentive that exists within the existing T&SC framework is sufficient reward to generators that wish to provide such flexibility. They support the maintenance of the existing arrangements and do not favour additional payments being made by the TSO to provide parking services.

One confidential response believe open cycle service has benefits in terms of ability to operate at low stable output and should be appropriately rewarded through HAS.

One confidential respondent recognises the value to the system of the reduction to minimum generation levels and believe new technology with relatively low min gens should similarly be incentivised and therefore believes option 1 is the most appropriate option. The respondent has concerns over whether the arrangements under the status quo sufficiently reward for this service given its importance.

2.6.3. TSOs' Response

The TSOs welcome participants' views on the provision of lower minimum generation/parking services with the majority preferring to keep the status quo. The AS consultation for 2011-2012

contains information on the SEM incentivisation of minimum generation and provides the background as to why the TSOs preference is to incentivise through the SEM.

2.6.4. TSOs' Recommendation

The TSOs are proposing to maintain the status quo and only contract where there is a system benefit in doing so.

2.7. SYNCHRONOUS COMPENSATION

2.7.1. Introduction

Synchronous Compensation is a service whereby a generating unit can declare itself available to provide reactive power (MVar) and Automatic Voltage Regulation⁵ (AVR) services to the TSOs while not generating active power (MW). The generating unit will need to import power from the transmission system in order to provide this service. This service offers the TSOs increased operational flexibility as in many instances a generating unit may be dispatched on to provide this service to provide local voltage support, whilst not necessarily requiring the active power, which results in increased constraints costs.

This proposed design is as follows:

- If after successful testing the generating unit it is established that they can provide this service then the generating unit can contract to provide this service through the HAS Agreement;
- The TSOs can dispatch a unit to generate 0 MW and to a MVar leading or MVar lagging set point;
- The unit will be synchronised with the transmission system and will import active power to provide this service from the transmission system;
- The unit will be paid a start cost (at the SEM start cost value) through HAS if started for Synchronisation Compensation only (i.e. not exporting active power)
- If dispatched to provide this service the generating unit will be remunerated for the imported energy used to provide this service, will be paid the harmonised reactive power rate and will be paid twice the harmonised reactive power rate if the unit provides AVR.

The TSOs propose that this service is remunerated for additional maintenance costs incurred by the generating unit through providing this service.

The TSOs have been working on the design and implementation of the Synchronous Compensation service. There are two options for a HAS rate:

1. Fixed price per kWh for import energy and HAS a rate for associated costs such as maintenance.

⁵ Automatic maintenance of a **Generation Unit's** terminal voltage at a desired set point. See relevant Grid Codes for further information. Grid Codes are available at www.eirgrid.com and www.soni.ltd.uk.

2. Pay import energy costs on a pass-through basis and a HAS rate paid for associated costs.

In both options a start cost would be paid through HAS in line with SEM start costs. The TSOs prefer option 2 and are thus recommending the following HAS rate for *associated costs*.

HAS Rate	€/hr
Synchronous Compensation	€2.88

2.7.2. Respondents Comments

Nine comments were received (BGE, BNM, Endesa, ESB PG, Indaver, PPB, Synergen and two confidential) in relation to Synchronous Compensation. All nine responders welcomed the introduction of Synchronous Compensation service.

One respondent (BGE) agrees with proposed design and believes a generator should not be exposed to any price risk. They recommended that imported energy costs are paid on a pass through basis.

One respondent (BNM) believes all costs associated with this service need to be recovered. They believe O&M expenses are likely to be unit specific and as such have questioned the standard rate. They have asked for clarification as to whether a unit being dispatched for synchronous condensing does not forego its eligible availability for capacity payments.

One respondent (Endesa) has a preference for option 2 and believes generators could not be expected to bear the risk of being paid a fixed price for imported energy. Clarification required as to whether penalties would apply if a station were to trip whilst providing this service.

One respondent (ESB PG) believes units not specifically designed for synchronous compensation require cost of the modification work required on a unit by unit basis. They also believe that the proposed additional revenue of €2.88/hr is so low as to be meaningless and that the service would benefit from a tender process.

One respondent (Indaver) Indaver supports this service insofar as it offers the system increased flexibility.

One respondent (PPB) agrees that option 2 is a reasonable remuneration mechanism. They believe that that generator capacity should be considered in the derivation of the rate as one would expect that the costs for a larger generating unit would be greater than for a smaller unit. They also believe that the start costs should be recoverable.

One respondent (Synergen) believes that imported energy costs should be paid on a pass through basis, plus payments for reactive power, start up costs and the HAS rate paid on associated maintenance costs.

One respondent would be happy to contract for Synchronous Compensation services so long as the full costs of import power and additional maintenance are covered. They are relatively neutral to either option 1 or 2 so long as the rate proposed realistically covers maintenance costs.

One respondent believe the level of remuneration should be in line with the capital cost of necessary installing equipment (e.g. clutches) to ensure an appropriate level of availability of this service on the system.

2.7.3. TSOs’ Response

The TSOs confirm that when a unit is in synchronous compensation mode all costs are to be recovered and the HAS rate proposed is one element of the total costs incurred in operating in this mode. The TSO recognises that the majority of respondents prefer option 2. The TSOs can clarify that the associated costs account for maintenance costs and an incentive. The TSOs can confirm that a unit operating in synchronous compensation mode does receive capacity payments. The TSOs would also like to clarify that SND’s would apply to any station operating in Synchronous Compensation mode.

2.7.4. TSOs’ Recommendation

The TSOs are recommending option 2 which provides for a payment mechanism including a pass through import energy (e.g. use of system costs), payment for the start cost as well as a HAS rate for associated costs.

2.8. STATIC FREQUENCY SERVICES

2.8.1. Introduction

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 passing through frequency trigger values. The Interconnector is 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. It is proposed that this service be harmonised and a rate to be proposed and approved by the RAs.

The TSOs are proposing a rate which is 50% of the POR, SOR, TOR1 and TOR2 categories as a means of remunerating the service provider for facilitation of static response. A charge for non-provision of this service would be liable, in line with all other AS categories.

HAS Rate	€/MWhr ⁶
Static Interconnector Frequency Response	€3.57

2.8.2. Respondents Comments

Ten comments were received (AES, BGE, Endesa, ESB PG, IWEA, NEAI, PPB, Synergen, Tynagh and One confidential) in relation to Static Frequency Service.

⁶ 2% inflation rate applied.

Five responses (AES, BGE, Endesa, ESB PG, Synergen, Tynagh) believe a detailed analysis is required to determine the appropriateness of the proposed rate.

Four responses (BGE, IWEA, Synergen and one confidential) question why the product is being introduced in a technology specific basis and question whether this or a similar service can be provided by other technologies.

Five responses (AES, Endesa, NEAI, PPB, Tynagh) state a concern in relation to transparency in relation to EirGrid setting a commercial tariff which is to be applied to their own asset and presents the risk of a conflict of interest.

One respondent (AES) states that it is difficult to understand the appropriateness of applying a 50% discount compared to other reserve rates.

One respondent (AES) has asked for clarification as to what charge will be applied for non-performance.

One respondent (BGE) request that further consultation is conducted on this service with a more detailed and robust analysis provided.

One respondent (Endesa) questions who the recipient of these payments should be and suggest that if Interconnector capacity is held by market participants then they should benefit from these payments, rather than the Interconnector owner.

Four respondents (Endesa, ESB PG, PPB and one confidential) ask for clarity to be provided on whether payments will be based on utilisation or availability, what level of reserve the Interconnector will provide, and how have the proposed rates been derived.

One respondent (NEAI) believes that the capability of the interconnectors to provide Ancillary Services should be made publicly available, as should a monthly report on the SO's usage of these services and prices paid.

One respondent (Endesa) Requests that the price paid to Moyle Interconnector be made publicly available.

One respondent (PPB) states that they recognise the potential system security benefits afforded by interconnectors and believes that interconnectors must be liable for all applicable Other System Charges including any existing or new trip charges.

One respondent (Synergen) states they are in favour of measures to increase the range of AS providers.

One respondent (AES) have stated that it is not clear what charge will be applied for non – performance of the Static Frequency Service and have asked for clarification on the matter.

2.8.3. TSOs' Response

The TSOs welcome participant's comments on this service.

The TSOs would like to clarify that this is not a new service and that Moyle Interconnector currently provides up to 75 MW of static reserve immediately after a frequency threshold is reached. The TSOs would also like to clarify that EWIC is expected to, following Grid Code testing, provide up to 50MW static reserve on the same basis. However the TSOs would like to point out that reserve provision on interconnectors is dependent on the spare capacity being available (i.e. unused capacity not being used for market transfers) and payments are made on a utilisation basis only. Where there is non-performance of static reserve, a charge will be applied.

The TSOs would advise that in their view there is no potential conflict of interest as from a TSO perspective they are charged with procuring the necessary services from the most economic source available. The net revenue of the fully regulated interconnector owned by EirGrid plc is not related to the level of revenues earned in respect of the Static Frequency Response service provided to the power system i.e. the monies earned by the regulated EWIC interconnector from the provision of Ancillary Services are netted off the underlying TUoS support.

In relation to the publication of the capability and revenues earned this is not currently being carried out for any Ancillary Services provider and indeed the contracts the TSOs enter into provide that confidential commercially sensitive information is maintained in accordance with licence obligations. This is something which may, however, be considered further under the regulatory / licensing regime for the interconnectors, and the associated publication of information, to the extent the respective regulatory authorities believe it to be appropriate and in keeping with the licences and regulatory regime under which the interconnectors operate.

In regard to the basis of how the rate was developed, the HAS rate proposed reflects a reserve product from a source that does not provide frequency regulation and whose energy is sourced from another power system i.e. GB. The reserve categories Primary, Secondary and Tertiary that provide dynamic reserve are sourced from generators that have governing systems installed as required by Grid Code. The reserve is categorised as dynamic because the reserve is provided continuously in proportion to the frequency changes, the greater the frequency drop the more reserve is provided, up to plant limits. The dynamic reserve through governor action assists control of the system frequency acting continuously to limit frequency deviations as system conditions change.

Static reserve is a fixed reaction from the interconnectors when a frequency threshold is reached. When triggered at a low frequency setting the interconnector will increase import by a fixed amount, almost instantly, to help counteract the generation shortfall that has caused the frequency to fall. As a fixed response, the static reserve does not contribute to the continuous regulation of system frequency that is required for stable operation. The power system could not be operated with only static reserve. Utilisation of static reserve provides a reduction in system operating costs compared to using dynamic reserve, static reserve is less expensive to procure and reduces constraint costs by allowing generators that would be operating at a reduced output to provide reserve to operate at a higher output. The TSOs would like to clarify that this service is provided as a specific service from DC interconnectors. Other technologies that can provide a similar service would

be considered where a benefit to the system can be provided and is being considered as part of the System Services Review.

2.8.4. TSOs' Recommendation

The TSOs recommend a HAS rate for static reserve of €3.57/MWhr⁷.

⁷ 2% inflation rate applied.

2.9. PROPOSED RATES AND CHARGES

2.9.1. Introduction

The section sets out the rates and charges for HAS that were proposed for each of the services.

2.9.2. Respondents Comments

Two comments were received (AES, PPB) that they were disappointed with the level of analysis and lack of a comprehensive summary on the TSOs proposals to keep the rates unchanged.

2.9.3. TSOs' Response

The TSOs are undertaking a comprehensive review of services and rates as part of System Services review and this is the reason why there is no change proposed for this tariff year. The TSOs are proposing that the rates be adjusted for inflation to ensure that the rates better reflect the costs to service providers. In considering an adjustment for inflation the TSOs examined most recent forecasts in relation to retail price inflation in both Ireland and Northern Ireland. The Office of Budget Responsibility in the UK is currently forecasting RPI inflation of 3.2% in 2012 and 2.3% for 2013. The ESRI is forecasting the Harmonised Index of Consumer Prices to increase by 1.4% in 2012 and 1.3% in 2013. On the basis of these forecasts the TSOs believe that a 2% increase is representative of consumer price inflation likely to be experienced across the two jurisdictions in the 2012/13 period; it is also consistent with the longer term central bank targets in both jurisdictions.

2.9.4. TSOs' Recommendation

The TSOs are recommending that the rates be adjusted for inflation of 2%.

Categories	2011-2012	2012-2013 ⁸	2012-2013 ⁹
Primary Operating Reserve	€ 2.22 / MWhr	€ 2.26 / MWhr	£ / MWhr
Secondary Operating Reserve	€ 2.13 / MWhr	€ 2.17 / MWhr	£ / MWhr
Tertiary Operating Reserve 1	€ 1.76 / MWhr	€ 1.80 / MWhr	£ / MWhr
Tertiary Operating Reserve 2	€ 0.88 / MWhr	€ 0.90 / MWhr	£ / MWhr
Replacement Reserve (Synchronised)	€ 0.20 / MWhr	€ 0.20 / MWhr	£ / MWhr
Replacement Reserve (De-Synchronised)	€ 0.51 / MWhr	€ 0.52 / MWhr	£ / MWhr
Primary Operating Reserve Charge Period	30 days	30 days	
Secondary Operating Reserve Charge Period	30 days	30 days	
Tertiary Operating Reserve 1 Charge Period	30 days	30 days	
Static Reserve Charge Period	N/A	30 days	
Event Frequency Threshold	49.5 Hz	49.5 Hz	
Reserve MW Tolerance	1 MW	1 MW	

⁸ 2% adjusted for inflation.

⁹ Exchange rate to be determined as per the 2011/2012 AS Regulatory Authorities Decision Paper i.e. Exchange Rate based on a 5 day Average.

Reserve Percentage Tolerance	10%	10%	
Reactive Power Lagging	€ 0.13 / MVarh	€ 0.13 / MVarh	£ / MVarh
Reactive Power Leading	€ 0.13 / MVarh	€ 0.13 / MVarh	£ / MVarh
Black Start (Aghada)	€ 64.71 / h	€ 64.71 / h	n/a
Black Start (Ardnacrusha)	€ 22.84 / h	€ 22.84 / h	
Black Start (Erne)	€ 22.04 / h	€ 22.04 / h	
Black Start (Lee)	€ 9.82 / h	€ 9.82 / h	
Black Start (Liffey)	€ 8.02 / h	€ 8.02 / h	
Black Start (Turlough Hill)	€ 81.63 / h	€ 81.63 / h	
Black Start Charge Period (Partial Fail)	30 days	30 days	
Black Start Charge Period (Total Fail)	90 days	90 days	

Table 3.1 Recommended Ancillary Service Charge Rates and Constants for 2012/2013 tariff year

3. NEXT STEPS

Following a review of comments on the HAS consultation paper the TSOs are now making these recommendations to the RAs. The TSOs will then publish a revised AS Statement of Payment and Charges for the 2012/2013 tariff period.