

Stage 03: Attachment A: Detailed Assessment of P259

P259: Provision of Applicable Balancing Services Volumes for Interconnectors

What stage is this document in the process?

01 Initial Written Assessment

02 Definition Procedure

03 Assessment Procedure

04 Report Phase

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About this document:

This is Attachment A to the P259 Assessment Report. This attachment provides additional detail of the assessment of P259, including further details of the Modification Group's discussions and background information for P259.

Introduction

P259 aims to resolve an issue arising from the interaction of BSC processes and systems with a Grid Code requirement for new Interconnectors to be capable of providing Mandatory Frequency Response.

The Transmission Company submits Applicable Balancing Services Volume Data (ABSVD) equal to the Mandatory Frequency Response volumes it expects from a BM Unit to account for the potential Imbalance caused by provision of Frequency Response. However, the Transmission Company will not be able to identify which IEA BM Unit (Production or Consumption) Interconnector ABSVD data should be assigned to.

Incorrectly assigned ABSVD will expose the IEA to spurious Imbalance Charges unless corrected data is submitted. A working group under the Connection and Use of System Code (CUSC) considered the facilitation of the Grid Code Interconnector requirements under the CUSC and BSC and developed several potential BSC solutions to resolve this issue.

National Grid raised P259 to allow these options to be assessed and the optimal solution progressed. P259 also proposes that the BMRA report related Interconnector information.

Previous CUSC discussion

The Grid Code requires DC Convertors (including Interconnectors) commissioned after 1 April 2005 to be capable of providing Frequency Response. This will apply to new Interconnectors, such as the UK-Netherlands Interconnector (BritNed) which is planned to begin commercial operations on 1 April 2011. Existing Interconnectors (i.e. IFA and Moyle) are exempt from the Frequency Response requirement.

The provision of mandatory Frequency Response is governed by the Grid Code and settled largely under CUSC governance. However, the BSC ('the Code') covers the allocation of Frequency Response energy imbalance volumes and the provision of market data.

The following two areas of the Code are impacted by the provision of Frequency Response by Interconnectors:

- The Settlement of Interconnector Error Administrator (IEA) BM Units; and
- The definition and reporting of related Interconnector data.

The Balancing Services Standing Group (BSSG), an industry standing group under CUSC governance, considered the Code changes required to allow Interconnectors to provide Frequency Response effectively and without being subject to any discrimination. The BSSG recommended that:

1. ABSVD should be assigned to the IEA BM Unit to which the SAA allocates the Metered Volumes corresponding to the delivered Frequency Response; and
2. The Interconnector equivalents of three existing data items (Final Physical Notification, Maximum Export Limit and Stable Export Limit) should be reported by the BMRA.

Implicit auctions

The BSSG noted that any solution to fulfil the two recommendations set out above must also take account of 'implicit auctions', which is the proposed means of trading over Interconnectors; the European Commission has already imposed a requirement for day-



Any questions?

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ahead implicit auctions on BritNed. This requirement is likely to be extended over the next few years to include other Interconnectors, such as the existing UK-France Interconnector (IFA).

The current understanding of BritNed operation is that volumes allocated by implicit auctions will be amalgamated with any errors being allocated to the Interconnector and then allocated to the IEA BM Units. The Interconnector Administrator will not include the implicit auction flows in the Metered Volumes submitted under BSCP04, 'BM Unit Metered Volumes for Interconnector Users'. The SAA will therefore automatically include these flows in the IEA Metered Volumes.

Code defect identified by P259

Accurate allocation of Frequency Response imbalance volumes

The Transmission Company calculates the expected change in energy delivery from a Party due to the provision of Frequency Response. The Transmission Company then submits this calculated volume into Settlement as Applicable Balancing Services Volume Data (ABSVD). The submission of ABSVD avoids exposing a Party to any Imbalance Charges caused by providing Frequency Response (provided that they deliver the calculated volume; over- or under-delivery will still incur Imbalance Charges).

The current rules for the submission of ABSVD require the Transmission Company to assign all volumes to BM Units. However, in the case of an Interconnector providing Frequency Response the Transmission Company will not necessarily be in a position to determine which BM Unit ABSVD should be assigned to (i.e. the IEA BM Unit allocated the overall imbalance). The SAA determines which IEA BM Unit (Production or Consumption) receives the imbalance based on the overall direction (i.e. positive or negative) of the IEA volume (the error volume), and this can change from one Settlement Period to another.

The Code does not currently prohibit the provision of ABSVD for IEA BM Units. Therefore a 'do nothing' approach (as set out under Option 1, below) is potentially viable. However, this approach carries the risk of errors and resultant incorrect charging of Interconnectors, and could be considered an inefficient arrangement for provision of Frequency Response by Interconnectors as it places an additional burden on National Grid and affected Interconnectors compared with the arrangements for other providers of Mandatory Frequency Response (i.e. generators).

P259 argues that the Code should be amended so that Interconnectors that provide Frequency Response have the same certainty that they will not incur Imbalance Charges (provided they deliver the correct volume) that other providers of Frequency Response already have.

Reporting by the Balancing Mechanism Reporting Agent

The Proposer also supports the BSSG's belief that the Code should be amended so that the BMRA is required to report data associated with Interconnectors. The BSSG believe equivalents of the following data should be reported for an Interconnector as a whole:

- Aggregate Final Physical Notification (FPN);
- Maximum Export Limit (MEL); and
- Stable Export Limit (SEL).



What are implicit auctions?

Implicit auctions allow buyers and sellers in each country to bid for Interconnector capacity on a day ahead basis.

For BritNed the existing exchange facility in the Netherlands will be extended to the UK.

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The Transmission Company currently sends this BM Unit information for generators to the BMRA. The BMRA publishes this information to market participants via the BMRS and TIBCO messaging software.

FPN and MEL data is used to calculate payments for Frequency Response. FPN, MEL and SEL data will therefore help Interconnectors to understand their position in the same way that the equivalent data helps other Parties.

Currently, there is no mechanism to report equivalents of these values for an Interconnector as a whole. P259 contends that in order to promote effective competition in the generation and supply of electricity (i.e. in relation to provision of Frequency Response) there should be a mechanism in place for the BMRA to report equivalent values for Interconnectors required to be able to provide Mandatory Frequency Response.

Proposer's rationale for P259

The Proposer argued in the Modification Proposal that P259 will remove a barrier to efficient participation by Interconnectors in the market for Frequency Response and will remove an inconsistency between the Grid Code and the Code, and will thereby better facilitate Applicable BSC Objectives (b), (c) and (d) as follows:

- Objective (b): By allowing the System Operator to effectively utilise Frequency Response provided by Interconnectors where they are the most economic provider. If the proposed changes are not made Interconnectors will not be able to provide Frequency Response efficiently; and
- Objective (c): By promoting competition in the market for Mandatory Frequency Response provision. The proposed changes would place Interconnectors on a comparable competitive footing with other Parties providing Mandatory Frequency Response by giving them the same certainty that they will not incur undue Imbalance Charges (i.e. provided they deliver the correct volume) and providing them with equivalent data to help them understand their position.
- Objective (d): By removing a potential inconsistency between the Grid Code, which requires new Interconnectors to be able to provide Mandatory Frequency Response, and the Code, which is at best silent about how this is achieved. Clarifying the BSC arrangements around provision of Frequency Response by Interconnectors will reduce the risk of confusion and error in the administration of the ABSVD arrangements.

The Group also identified a benefit against Objective (a) when giving their views, which are detailed in the Assessment Report.

Related changes

CAP182 is being considered under the CUSC to progress changes associated with the provision of Mandatory Frequency Response by Interconnectors. There is no direct interaction between P259 and CAP182, but if CAP182 is not approved National Grid will not be able to instruct any Interconnector to provide Mandatory Frequency Response.

National Grid needs to complete its own IS development work to support Mandatory Frequency Response by Interconnectors. This will be necessary whether or not P259 is approved, and therefore falls outside the BSC. National Grid will not complete this work till November 2011, but if CAP182 is approved National Grid will have the ability to manually instruct the provision of Mandatory Frequency Response by any Interconnector obligated to be able to provide this service (i.e. BritNed) prior to National Grid's IS changes being implemented. The defect identified by P259 therefore exists before November 2011.

Avoided costs

If P259 is not implemented National Grid would need to put in place a workaround solution for ABSVD relating to Interconnectors providing Mandatory Frequency Response. The impact of this on National Grid (and the associated cost) is dependent on the following variables, some of which are not yet confirmed:

- The workaround process used;
- The number of instances of an Interconnector being instructed to provide Mandatory Frequency Response; and
- The number of Interconnectors that are required to be capable of provision of Mandatory Frequency Response, i.e. only BritNed at present.

National Grid has estimated the cost of operating the workaround for one Interconnector (BritNed) will be in the range £14,000 - £55,000 per annum. If other Interconnectors were required to be capable of provision of Mandatory Frequency Response the cost estimate may be multiplied by the total number of such Interconnectors. This cost will apply (pro-rated) to any period before P259 Implementation in which National Grid can instruct an Interconnector provide Mandatory Frequency Response.

Implementation of P259 Proposed or the potential Alternative would avoid the need for the National Grid workaround, i.e. an estimated saving of £14,000 - £50,000 per annum would be delivered (for operation with one Interconnector required to be able to provide Mandatory Frequency Response).

In addition there may be costs imposed upon the Interconnector Error Administrator for performing additional manual checks to determine whether ABSVD has been correctly assigned.

Current arrangements

Settlement of Interconnector Metered Volumes

The IEA is allocated any Metered Volume of energy that remains when all volumes notified by Interconnector Users have been deducted from the Metered Volume of the Interconnector. The IEA BM Unit Metered Volume (i.e. the error volume) is:

$$\boxed{\text{IEA BM Unit Metered Volume}} = \boxed{\text{Interconnector Metered Volume}} - \boxed{\Sigma \text{ Interconnector User BM Unit volume}}$$

Interconnector User BM Unit volumes are determined by the Interconnector Administrator (IA) based on energy volume notifications received from Interconnector Users and any adjustments made by the IA. The remaining IEA BM Unit Metered Volume is the error volume, which incurs Imbalance charges for the Interconnector (not Interconnector Users).

For each half hour Settlement Period the SAA allocates the IEA Metered Volume (i.e. the error volume) to either the IEA's Consumption or Production BM Unit based on the direction of the error. The SAA allocates the IEA's volume to the IEA Production BM Unit if it is positive and to the IEA Consumption BM Unit if it is negative.

Settlement of Mandatory Frequency Response by generators

Payment for delivery of Mandatory Frequency Response volumes is dealt with outside the BSC, under the CUSC. However, the potential Imbalance caused by provision of Mandatory Frequency Response is dealt with under the BSC. Generators' energy volumes are adjusted using Applicable Balancing Services Volume Data (ABSVD) so that any

Frequency Response volume which National Grid has directed them to supply is taken into account. This ensures that they are not exposed to Imbalance Charges under the BSC for providing Mandatory Frequency Response.

ABSVD is equal to the Frequency Response volume that the generator has been instructed to deliver by National Grid. National Grid notifies the SAA of the ABSVD and which generator's Production BM Unit to allocate the ABSVD to. ABSVD for generators is always assigned to the Production BM Unit since the generator's Metered Volume is always positive.

The SAA takes the ABSVD into account when calculating Imbalance Charges. If the generator delivers exactly the Frequency Response volume it was directed to supply it will not incur Imbalance Charges for doing so. However, any deviation from the generator's energy volume position including ABSVD (including any deviation due to under- or over-delivery of Frequency Response) will incur Imbalance Charges. Settlement under the BSC does not distinguish what part of any Imbalance is due to under- or over-delivery of Frequency Response and what part has other causes.

Settlement of Mandatory Frequency Response by Interconnectors

No existing Interconnectors are currently obliged to provide Mandatory Frequency Response volumes at the direction of National Grid, but new Interconnectors commissioned after 2005 (including BritNed) will be required to do so. Under the existing arrangements Metered Volumes resulting from the provision of Mandatory Frequency Response by an Interconnector will be allocated to an IEA BM Unit (i.e. as the Frequency Response volumes will be provided by the Interconnector and not Interconnector Users this is the only result possible).

National Grid will allocate ABSVD to an IEA BM Unit to offset the instructed Frequency Response volume, so that the IEA does not incur Imbalances Charges for delivery of Mandatory Frequency Response by the Interconnector. However, unlike ABSVD for generators, which is always allocated to the Production BM Unit, ABSVD for an Interconnector must be allocated to either the Production or Consumption BM Unit as appropriate (i.e. the same IEA BM Unit which has been allocated the overall error volume). National Grid is not able to determine the correct BM Unit with certainty, and there is therefore a risk that ABSVD will be allocated to the wrong IEA BM Unit if no change is made to the BSC arrangements.

If ABSVD is allocated to the wrong IEA BM Unit by National Grid the IEA will be exposed to Imbalance Charges due to delivery of Mandatory Frequency Response by the Interconnector, unless National Grid is requested to reallocate the ABSVD to the correct IEA BM Unit. P259 contends that this means that the BSC treats Interconnectors differently to other providers of Mandatory Frequency Response (i.e. generators), for whom there are provisions in place that ensure they do not incur Imbalance Charges for delivering instructed Frequency Response.

The aim of all the P259 solution options considered by the Group is that the IEA is not at risk of exposure to Imbalance Charges due to an Interconnector's delivery of an instructed Frequency Response volume, only for over- or under-delivery of that volume (i.e. the same as for generators that provide Mandatory Frequency Response).

Implicit auctions

New Interconnectors, including BritNed, will need to conduct trades via 'implicit auctions'. No Interconnectors are currently obliged to use implicit auctions, but ELEXON has explored how the current BSC arrangements could accommodate them. We recently informed the ISG of the potential approaches ([ISG112/05](#)), as follows:

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- A. (No BSC impact) Implicit auction volumes are collected together with Interconnector errors and allocated to the IEA BM Units. The IA would not include implicit auction flows in Metered Volumes notified under Balancing and Settlement Code Procedure (BSCP) 04 and the SAA would therefore automatically include such flows in the IEA Metered Volumes. This is possible because:
- There are no constraints in the Energy Contract Volume Allocation Agent (ECVAA) systems preventing an IEA having Energy Contract Volume Notifications (ECVNs);
 - There are no constraints in National Grid systems or the BMRS preventing Final Physical Notifications (FPNs) being submitted and reported for IEA BM Units; and
 - There are no constraints in the Energy Contract Volume Aggregation Agent (ECVAA) systems preventing FPNs for IEA BM Units being taken into account in credit checking.
- B. (BSC impact: changes to R7.1.2, T4.1) Implicit auction volumes are assigned to the IEA, but to a separate pair of Interconnector BM Units (i.e. not the existing IEA BM Units). This option would require the IEA to have two pairs of Interconnector BM Units; and
- C. (No BSC impact) The IEA finds a Party to be responsible for implicit auction volumes. This Party would function as a normal Interconnector User for BSC purposes.

IEAs required to operate implicit auctions therefore have to choose between option A and option C (unless they raise a Modification to amend the BSC). We understand that the IEA of BritNed, the first Interconnector to be in this position, intends to use option A.

The options for implicit auctions are included as background information, and are outside the scope of P259. The Group has sought to ensure that the P259 solution does not conflict with these implicit auction approaches.

Role of the IEA

The role of the IEA is to be responsible for any Metered Volume not allocated to an Interconnector User (in accordance with existing BSC arrangements and the relevant Interconnection Agreement), including:

- Any amendment made to the Interconnector's operating program post Gate Closure (except to the extent that BSC R7.1.3(b) allows these to be reflected in Settlement);
- Any discrepancies caused by errors in estimating the losses on the Interconnector;
- Frequency Response (or other balancing services instructed post Gate Closure, except Bid Offer Acceptances (BOAs) which are already allowed for in R7.1.3(b)); and
- Any other volume (e.g. implicit auctions) not allocated to an Interconnector User.

When the BSC was drafted it was not envisaged that the IA would implicitly allocate volumes to the IEA in this way (because at the time it was thought that Interconnector capacity would be allocated through explicit auctions rather than implicit auctions) but doing so is not inconsistent with current BSC provisions.

The EU Third Package

The European Union (EU) Third Internal Energy Market Package (the 'Third Package') is the most recent legislation adopted by the European Council to deliver a single competitive energy market across the EU. The key objectives of the Third Package are to enhance consumer protection, improve the functioning of the energy markets and increase security of supply.

The Third Package came into force in September 2009. The bulk of the Third Package requirements must be transposed into domestic legislation by 3 March 2011. The Regulations are directly applicable and therefore do not need to be transposed, but the GB national market framework must be consistent with their application.

There is some latitude and therefore uncertainty in how the Third Package may be implemented in the GB market. In April 2010, the Department of Energy and Climate Change (DECC) issued a 'Call for evidence' consultation on the Third Package which did not set out implementation proposals, but rather sought views on its implications and how it may be implemented. A detailed consultation will follow, setting out proposals for aspects of the Third Package that require implementation.

Currently, the Grid Code will require the Interconnector to be capable of providing Mandatory Frequency Response. The manner in which the Third Package is ultimately implemented in GB may affect P259, as it could be implemented such that no Interconnectors are obligated to be capable of delivering Mandatory Frequency Response. It could also be concluded that the current rules remain appropriate, or that it should be Interconnector Users (not operators) who provide Mandatory Frequency Response, or that some other arrangement is appropriate.

This may be speculated upon, but there is no firm indication thus far. National Grid must prepare to meet its obligations under the Grid Code as it currently stands and P259 must be assessed against the current Code baseline. It is acknowledged that the Authority may, when it comes to make its decision on P259, have information which is not currently available to the Group.

The Authority recently issued a [consultation](#) on the Third Package implementation, which indicated Interconnectors are likely to be certified as transmission system operators. The Authority has until March 2012¹ to certify transmission system operators, so even if the Third Package means Interconnectors are no longer required to be able to provide Mandatory Frequency Response, there would still be a period in which they could be instructed to do so.

Commercial provision of Frequency Response

Interconnectors (and generators) can choose to provide Frequency Response on a commercial basis. Under National Grid's ABSVD Methodology Statement, National Grid can provide ABSVD to the SAA in relation to commercial Frequency Response.

The defect identified by P259 relates to Mandatory Frequency Response. However, because the SAA does not distinguish between the Balancing Services for which it receives ABSVD, P259 would also support commercial provision of Frequency Response by Interconnectors.

¹ March 2013 in some limited circumstances.

Frequency Response and ABSVD

What is Frequency Response?

The balance between system demand and total generation determines overall system frequency. An action undertaken to keep system frequency within specific required limits is Frequency Response. This section provides an overview of Frequency Response, but further information can be found on the National Grid website².

System frequency continuously changes, and is determined and controlled by the balance between system demand and total generation. If demand is greater than generation, the frequency falls; if generation is greater than demand, the frequency rises.

National Grid has a licence obligation to keep frequency within one percent of the nominal system frequency of 50Hz, apart from in exceptional circumstances. It must ensure that sufficient generation (or demand) can be called on to manage frequency variations.

One of the methods National Grid uses to manage system frequency is Mandatory Frequency Response, which is a Balancing Service defined in the Grid Code. Mandatory Frequency Response is an automatic change in active power output in response to a frequency change. All generators that fall under the relevant requirements of the Grid Code must have the capability to provide Mandatory Frequency Response; the capability to provide this service is a condition of connection for generators connecting to the GB Transmission System. Large embedded generators are also subject to this requirement.

Service providers delivering Mandatory Frequency Response are paid in accordance with the CUSC. There are two types of payment:

- Holding Payment (£/h) is made for capability to provide response when instructed. Generators submit holding prices on a monthly basis³; and
- Response Energy Payment (£/MWh) remunerates the amount of energy delivered to and from the system when providing Frequency Response.

Such payments for the delivery of Mandatory Frequency Response volumes are dealt with under the CUSC (i.e. outside the BSC), but generators' energy volumes in the BSC Settlement process are adjusted using ABSVD so Mandatory Frequency Response is taken into account when determining imbalance under the BSC. This ensures generators are not exposed to BSC Imbalance Charges for providing Mandatory Frequency Response.

How does ABSVD work?

ABSVD is applied in relation to other Balancing Services, but the following example considers its use only in relation to Mandatory Frequency response. The National Grid Applicable Balancing Services Volume Data Methodology Statement sets out how ABSVD is applied for various Balancing Services, including Mandatory Frequency Response⁴.

The numbers in this example match the example set out in section 4.1 of the National Grid ABSVD Methodology Statement, which provides the calculations in greater detail. The example shows a simple situation in which there is no Bid Offer Acceptance (BOA) activity and the volume of Frequency Response delivered matches that instructed by National Grid. This example also simplifies the graphical representation of the situation to neglect the shape of the energy volumes, in order to clarify the illustration of the quantities involved; quantities are constant over the half-hour Settlement Period, rather than varying.

² <http://www.nationalgrid.com/uk/Electricity/Balancing/services/frequencyresponse/>

³ via the Frequency Response Price Submission System (FRPS)

⁴ <http://www.nationalgrid.com/NR/rdonlyres/98D3633C-A871-4544-A9D0-8CF45F9ADD34/16056/ABSVDv23effectivefrom01apr07final.pdf>

Consider a generator that delivers Mandatory Frequency Response determined to be a volume of 2.5MWh (i.e. in the relevant half hour an additional 2.5MWh of energy was produced as a result of providing the response).

| BM Unit parameters for relevant Settlement Period | |
|---|-----------|
| Parameter | Value |
| Contracted Position | 137 MWh |
| Final Physical Notification | 145 MWh |
| Metered Production | 147.5 MWh |
| Applicable Balancing Services Volume | 2.5 MWh |
| Transmission Loss Multiplier (TLM) | 0.95 |
| Bid Offer Acceptances (BOAs) | 0 MWh |

If the Party operated a single BM Unit with the parameters in the table above for this settlement period, the impact on central settlement would be as set out below (all calculations are in accordance with Section T of the BSC).

The Credited Energy Volume is the Metered Production multiplied by the TLM, net of the volumes of any Subsidiary Parties Volumes (in this example all energy is credited to the lead party, so the sum of Credited Energy Volumes over the Energy Accounts of Subsidiary Parties is zero):

$$\text{Credited Energy Volume} = 147.5 \text{ MWh} \times 0.95 - 0 \text{ MWh} = 140.13 \text{ MWh}$$

Here the Account Credited Energy Volume is equal to the Credited Energy Volume, i.e. 140.13MWh. The Balancing Services Volume is equal to the Applicable Balancing Services Volume in this example:

$$\text{Balancing Services Volume} = 2.5 \text{ MWh}$$

The Account Period Balancing Services volume is the product of Balancing Services Volume and the TLM:

$$\text{Account Period Balancing Services} = 2.5 \text{ MWh} \times 0.95 = 2.38 \text{ MWh}$$

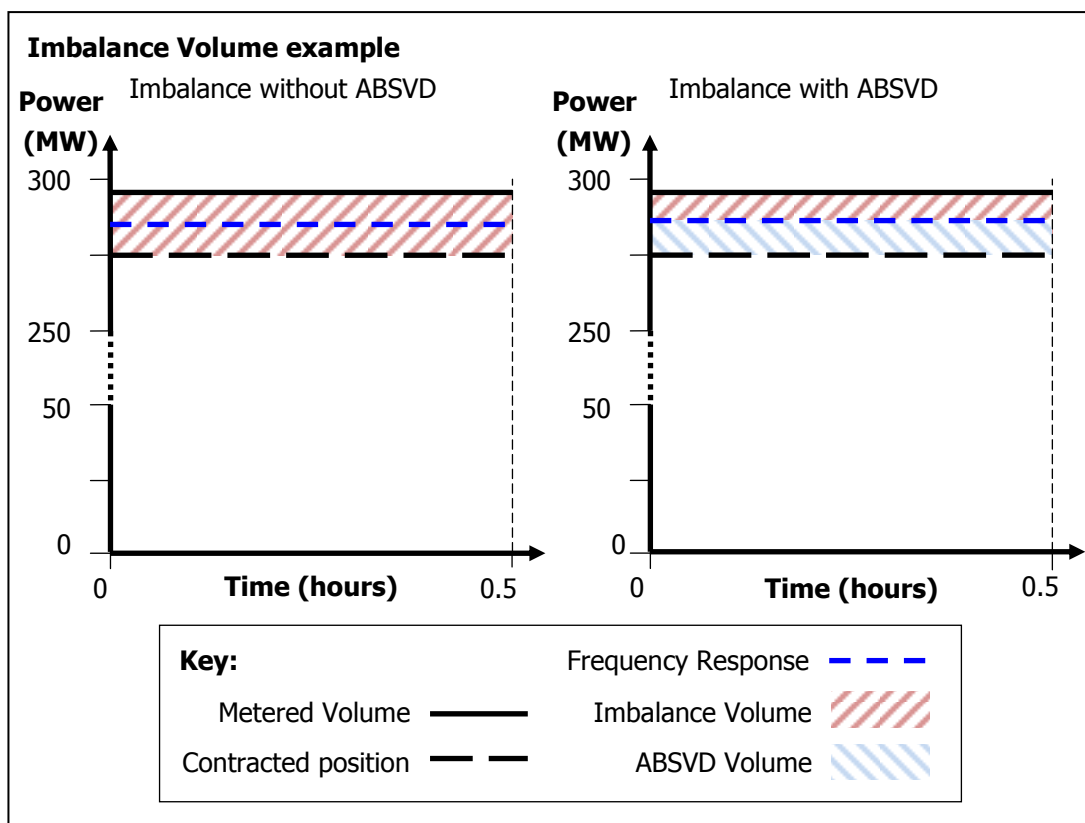
The Account Energy Imbalance Volume is the Credited Energy Volume minus the Account Period Balancing Services and Contracted Position:

$$\begin{aligned} \text{Account Energy Imbalance Volume} &= 140.13 \text{ MWh} - 2.38 \text{ MWh} - 137 \text{ MWh} \\ &= 0.75 \text{ MWh} \end{aligned}$$

So in this example the account would be in imbalance by 0.75 MWh and would receive payment for that 0.75 MWh at System Sell Price.

To illustrate the impact of ABSVD assigned by National Grid to generators it instructed to provide Frequency Response, consider the example without the Applicable Balancing Services Volume (but with the generator still providing Frequency Response). The Party's account would be in imbalance by 3.13 MWh (i.e. 140.13 – 137) instead of 0.75 MWh.

This is illustrated in the diagram below; it can be seen that the imbalance volume is greater without ABSVD applied. This diagram, and the example set out above, shows the situation when an instructed volume of Frequency Response is correctly delivered (i.e. there is no over- or under delivery of Frequency Response) in addition to the volume of energy the Party is already contracted to deliver.



Assigning ABSVD and including it in Settlement calculations removes Balancing Service volumes (such as Mandatory Frequency response) from the BSC Settlement process. Such volumes are then settled outside the BSC, under CUSC governance.

2 Terms of Reference

The Panel set the P259 Modification Group the following Terms of Reference:

Modification Proposal P259 will be considered by the P259 Modification Group (formed from the Settlement Standing Modification Group) in accordance with the SSMG Terms of Reference and this appendix.

Assessment Procedure

- 1.1 The Modification Group will carry out an Assessment Procedure in respect of Modification Proposal P259 pursuant to section F2.6 of the Balancing and Settlement Code.
- 1.2 The Modification Group will produce an Assessment Report for consideration at the BSC Panel Meeting on 12 August 2010.
- 1.3 The Modification Group shall consider and/or include in the Assessment Report as appropriate:
 - Development of the P259 solution: Several solution options have been put forward, and the Group should fully develop a P259 solution to address the identified defect.
 - Identification of the benefits of P259 against the Applicable BSC Objectives and the impact of not addressing the identified defect.
 - Implementation approach: to identify an appropriate approach taking into account relevant factors, such as implementation activities and the start of full operation of BritNed in early 2011.
 - Interaction with other aspects of Interconnector operation or provision of Frequency Response: P259 may affect existing or prospective Interconnector activities, for instance the forthcoming requirement to determine BritNed Interconnector flows via implicit auctions.
 - Any interaction with other BSC systems and processes: P259 may affect other Code activities, for instance credit checking uses Interconnector FPNs so the impact of Interconnector aggregate FPN reporting on the accuracy of credit checking must be considered.
 - Related work carried out under the CUSC, and any interaction with P259 (liaising with relevant CUSC working groups as necessary).
 - Impact on Interconnectors not mandated to be able to provide Frequency Response:
 - Impact on activities due to P259 changes;
 - Impact on their provision of commercial Frequency Response;
 - Any discrimination between Interconnectors based on whether they are required to provide Frequency Response; and
 - Whether there would be any impact on Distribution Interconnectors.
 - Impact of any developments in implementation of the EU Third Internal Energy Market Package or any other changes or developments in legislation (liaising with the Authority as necessary).
 - Relevant operations in other energy markets, such as regional market coupling.

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3 Modification Group's Discussions

P259 solutions considered

The Group considered a number of solution options for the Settlement/ABSVD aspect of P259, and assessed the costs and impacts of some of these options, before developing the P259 Proposed solution and a potential Alternative solution for industry consultation. The solution options considered by the Group are summarised below.

Further details of the solutions issued for impact assessment (IA) can be found in the P259 Impact Assessment documentation and the results of the impact assessment are available on the [P259 page](#) of the ELEXON website.

The P259 Modification Proposal set out three potential solution options (one of which had two sub-options). The Group progressed one of these original options (option 2) as the P259 Proposed Modification solution. The Group also considered and impact assessed three further solution options. One of these options (option 6 in the table below, suggested by BritNed in its impact assessment response) was included in the P259 consultation as a potential Alternative Modification. However, the Group ultimately decided, following further discussion after receiving the impact assessment and consultation results, not to progress any Alternative solution for P259.

The aim of all these options was that the IEA is not at risk of exposure to Imbalance Charges due to an Interconnector's delivery of an instructed Frequency Response volume, only for over- or under-delivery of that volume (i.e. the same as for generators that provide Mandatory Frequency Response).

The Group developed only one solution for the BMRS reporting aspect of P259, as set out in the main Assessment Report document. This aspect of P259 remained the same under all the particular Settlement options considered by the Group.

Summary of P259 Settlement solution options

| Ref. | Description | IA | Source | Status/notes |
|------|--|----|----------|---|
| 1 | <ul style="list-style-type: none"> Do nothing under the BSC. National Grid and BritNed implement workarounds. | X | Mod form | Not progressed under P259. No Mod needed. Basis of interim workaround. |
| 2 | SAA assigns ABSVD to correct IEA BM Unit. | ✓ | Mod form | P259 Proposed solution. Low complexity/cost; consistent with treatment of generators; works for other ABSVD (i.e. for Commercial Frequency Response or other Balancing Services). |
| 3a | <ul style="list-style-type: none"> SAA allocates error volumes, and National Grid assigns ABSVD, to a single additional IEA BM Unit. Existing IEA BM Unit pair retained for Interconnector capacity auction volumes. | X | Mod form | Not progressed. Group developed Option 4a to separate ABSVD from other volumes for transparency. |
| 3b | <ul style="list-style-type: none"> SAA allocates error volumes, and National Grid assigns ABSVD, to a single IEA BM Unit. Existing IEA BM Unit pair | X | Mod form | Not progressed. Group concerned that assigning ABSVD to same BM Unit as other quantities |

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| | decommissioned; all quantities (error, Metered Volumes, ABSVD) assigned to single IEA BM Unit. | | | not transparent enough and would be mandatory for existing Interconnectors; subsequently developed optional variant as potential Alternative Modification. |
| 4a | <ul style="list-style-type: none"> National Grid assigns ABSVD to new Interconnector User BM Unit and the IA reports an equal energy volume for this BM Unit. SAA nets off the BM Unit volume as normal from the Interconnector Metered Volume in determining Imbalance (error) volume. IEA/other Parties may register additional BM Unit for ABSVD/Frequency Response; IEA must do so if no other Party does. | ✓ | P259 Group | Not progressed. Low BSC Agent costs and partial future-proofing outweighed by impact/cost to National Grid and BritNed and inconsistent with treatment of generators. Additional transparency not needed as ABSVD already published on BMRS. |
| 4b | <ul style="list-style-type: none"> National Grid assigns ABSVD to new Interconnector User BM Unit pair and the IA reports an equal energy volume for this BM Unit pair. SAA nets off the BM Unit volume as normal from the Interconnector Metered Volume in determining Imbalance (error) volume. IEA/other Parties may register additional BM Unit pair for ABSVD/Frequency Response; IEA must do so if no other Party does. | ✓ | P259 Group | Not progressed – reasons as for 4a, above. |
| 5a | <ul style="list-style-type: none"> National Grid assigns ABSVD to new IEA BM Unit. SAA assigns ABSVD directly to IEA accounts. Multiple BM Units might be registered. | X | P259 Group | Not progressed. No IA due to excessive BSC Agent impact compared with other options. |
| 5b | <ul style="list-style-type: none"> National Grid assigns ABSVD to new IEA BM Unit pair. SAA assigns ABSVD directly to IEA accounts. Multiple BM Unit pairs might be registered. | ✓ | P259 Group | Not progressed. Complex compared with option 2 and no additional benefits identified. |
| 6 | <ul style="list-style-type: none"> SAA allocates error volumes, and National Grid assigns ABSVD, to a single IEA BM Unit. Similar to option 3b, but achieved | ✓ ⁵ | IA | Not progressed. Consulted on as potential Alternative Modification before being discounted. |

⁵ BSC Agent impact assessment of solution option 6 (the potential Alternative) was carried out after the other impact assessments, in parallel with the P259 consultation.

| | | | | |
|--|--|--|--|--|
| | by using only Production IEA BM Unit. | | | |
| | <ul style="list-style-type: none"> Mandatory for IEAs of Interconnectors required to be able to provide Mandatory Frequency Response, optional for IEAs of other Interconnectors. | | | |

In addition to the options set out in the table above, the Group also considered, less formally, a solution in which ABSVD would be assigned to the existing System Operator (SO) Interconnector User BM Unit pair. This is very similar to option 4b, to the extent it can be considered a restricted version of 4b, i.e. the SO BM Unit pair is specifically used, rather than any standard Interconnector User BM Unit pair.

This would effectively mean Mandatory Frequency Response by Interconnectors would be treated as an SO-SO Trade. The ABSVD-equal energy volume assigned to the SO BM Unit pair where would be netted off the overall IEA error volume, like 4a/4b. This option would avoid the BSC Agent impacts and would have an element of future-proofing (to a similar extent as 4a/4b). The SO BM Unit option was not formally impact assessed, but we have confirmed that the impacts and costs associated with its implementation would be similar to options 4a/4b.

One Group member strongly believed that this SO-SO option would be the most efficient solution, and was disappointed by the costs associated with options 4a and 4b, and therefore the SO-SO option. This member believed Frequency Response by an Interconnector to be, conceptually, a service instructed by the SO in one country and delivered by the SO in another (by receiving/delivering less energy).

However, while not necessarily disagreeing with this view, a majority of the Group (including the Proposer) believed that this SO-SO solution would be inconsistent with the Grid Code requirements for Interconnector provision of Mandatory Frequency Response as they currently stand (i.e. the Interconnector is responsible for the service, not the SO) and with the treatment of generators that provide the same service. The Group therefore concluded it would not address the defect as identified by the Modification Proposal.

The table below shows a summary of the results of the original impact assessment of solution options 2, 4a, 4b and 5b, as set out in the table above. Option 5a was originally included in the impact assessment but the Group agreed that it was not necessary to fully impact assess it because it became clear it would had a prohibitive central system impact compared with the other options.

| Summary of results of impact assessment of P259 solution options | | | | | |
|--|---------------------------------------|----------|-----------|-----------|----------|
| Solution option | | 2 | 4a | 4b | 5b |
| Cost (£k) | BSC Agent | 75.3 | 1.7 | 1.7 | 75.4 |
| | National Grid | 0 | 100 | 190 | 0 |
| | BritNed | 0 | 100 - 120 | 100 - 120 | 0 |
| Lead time | BSC Agent (months) | 6 | 0.5 | 0.5 | 6 |
| | National Grid (National Grid release) | Nov 2011 | Nov 2011 | Nov 2011 | Nov 2011 |
| | BritNed (months) | 0 | 6 - 9 | 6 - 9 | 0 |

The Group considered that some options (e.g. 4a and 4b) which would be somewhat 'future-proof' to the extent that they could accommodate an arrangement where Interconnector Users were considered responsible for provision of Frequency Response,

rather than Interconnectors, which the Group believed could be a possible outcome of implementation of the EU Third Package. However, such solutions add significant impact and cost to implementation by National Grid and those Interconnector Administrators that are affected. They might also be considered to move away from the aim of P259 to treat Interconnector providers of Mandatory Frequency Response equivalently to generators.

The Group also considered that there could be other outcomes of Third Package implementation which are not accommodated by any of the solution options (e.g. that no Interconnectors are required to be able to provide mandatory Frequency Response, so considering how future-proof the solutions are was of limited value. The Group therefore concluded that it was most pragmatic to progress a solution option that is low impact and cost against the current baseline, and which can be implemented quickly.

The Group agreed that it was not feasible to do anything further to take into account the effect of the Third Package, or any other changes in this area, in the absence of a more definitive statement from the Government on its intentions. This view was supported by respondents to the Assessment Procedure Consultation.

In the course of its discussion of P259, the Group considered whether any of the solution options might impact the distribution of the residual IEA Imbalance (error volume). The Group initially believed that the Imbalance was 'smeared' across all Interconnector Users of an Interconnector, under Interconnector rules outside the BSC, and were concerned that some of the options could affect this process. However, BritNed subsequently confirmed that this was not the case and would not be the case under P259; the IEA was responsible for the entire Imbalance Volume and all Imbalance Charges would fall solely on the IEA (Interconnector User volumes are not affected by the Imbalance).

Consultation on potential Alternative solution

Settlement: all quantities assigned to IEA Production BM Unit

The potential P259 Alternative solution included in the P259 consultation was similar to the option 3b solution that was suggested in the P259 Modification Proposal. Interconnectors required to be able to provide Mandatory Frequency Response would be required to use only their Production IEA BM Unit. Any Interconnector without the Mandatory Frequency Response requirement could choose to adopt this arrangement. This would be accomplished by registering, or deregistering, the IEA Consumption BM Unit, as necessary. All IEA flows (whether Metered Volume, implicit auction volumes or ABSVD) would be allocated only to the IEA Production BM Unit and energy account.

Using only the Production BM Unit means National Grid would simply allocate ABSVD to this BM Unit; ABSVD could not be incorrectly allocated so no action would be required by the SAA to ensure it had been correctly assigned and/or to reassign the ABSVD. This arrangement would be mandatory under the BSC for Interconnectors required to be able to provide Mandatory Frequency Response, but optional for other Interconnectors. IEAs of Interconnectors not required to be able to provide Mandatory Frequency Response (IFA and Moyle) would therefore not be affected unless they chose to operate in this manner.

The potential Alternative solution was suggested in BritNed's response to the P259 impact assessment. This response set out BritNed's reasons for suggesting this solution and its benefits, in their view, over other options. BritNed's response is available on the [P259 page](#) of the ELEXON website.

More details on the Group's discounted potential Alternative solution can be found in the P259 Assessment Consultation document on the [P259 page](#) of the ELEXON website.

Comparison of P259 Proposed and potential Alternative

Following the original impact assessment, the Group developed the potential Alternative described above and a BSC Agent impact assessment of this Alternative was carried out in parallel with the Assessment Consultation. ELEXON confirmed the costs of the Proposed and potential Alternative Modification solutions (including ELEXON implementation costs, which were not assessed previously). There was a slight reduction in the P259 Proposed Modification BSC Agent implementation costs compared with the original assessment (as option 2) due to efficiencies gained by treating the Settlement (ABSVD) and BMRS aspects as one consolidated solution.

Impact assessment of the potential Alternative solution showed the costs of the Proposed and potential Alternative to be comparable (£73,700 and £61,400 respectively). The estimated BSC Agent costs and lead times of the potential Alternative were less than those of the Proposed because the impact on the SAA was reduced under the potential Alternative, because it would not impact the central Settlement calculations (unlike the Proposed Modification), so less testing would be required.

The ELEXON assessment of implementation effort and cost was based on change specific costs for standalone implementation. ELEXON's implementation activities would also include project management costs, which may be affected by whether implementation is standalone or part of a standard Release and by what changes are included in the same Release. Further details can be found in the main Assessment Report document.

| Summary of results of impact assessment of P259 solution options | | | |
|--|---------------------------------------|----------|---|
| Solution option | | Proposed | Alternative |
| Cost (£k) | BSC Agent | 73.7 | 61.4 |
| | National Grid | 0 | 0 |
| | BritNed | 0 | Unknown (BritNed favour Alternative) |
| | ELEXON | 9.6 | 8.2 |
| Lead time | BSC Agent (months) | 6 | 4.5 |
| | National Grid (National Grid release) | Nov 2011 | Nov 2011 |
| | BritNed (months) | 0 | Unknown (max for other solutions: 9 months) |
| | ELEXON (Man Days effort) | 40 | 34 |

Solution suggested following the Group's final views

After the Group had given its final views on P259, and agreed its recommendations, a Group member suggested that the Group should consider amending the P259 Proposed solution to extend it to Interconnector Users. The aim of this would be so that, if the arrangements should change so Balancing Services are associated with Interconnector Users, any Balancing Service identified against an Interconnector User would be allocated to the same BM Unit as the Metered Volume for that unit.

The aim would be to deliver the kind of future-proofing against future governance changes already considered under some of the other solutions options and ultimately discounted. The Group member did not set out exactly what would be required to extend the P259 solution in this way, but speculated that the changes needed to the legal text and system changes would not be significant.

The member felt that their suggestion would provide flexibility for potential different approaches by different Interconnectors and allow other potential ABSVD services to be distinguished between Interconnector Users, if this should be required in future. The member noted that allocation of ABSVD to BM Units other than the IEA BM Units would also mean also mean equivalent volumes would need to be assigned to the relevant Interconnector User BM Units by the Interconnector Administrator, in a similar way as some of the discounted solution options (e.g. option 4).

The Group's view

ELEXON informed the Group of the Group member's views and suggestion. We received responses from all but one of the P259 Group. All members that responded (i.e. a clear majority of the Group) did not believe the new suggestion warranted a request to extend the P259 Assessment Procedure and confirmed that their final views against P259 had not changed in light of the Group member's suggestion.

The Group had already considered solutions (e.g. Option 4) which included an element of future-proofing against Mandatory Frequency Response being provided by either the Interconnector itself or Interconnector Users, but ruled them out on grounds of increased cost and complexity and because they would not be future-proof against all potential outcomes of Third Package implementation, such as the likely outcome that Interconnectors are not required to be able to provide Mandatory Frequency Response at all (i.e. neither the Interconnector itself nor Interconnector Users).

Further work would be required to develop the suggested solution and understand how it would work in practice, assess the impacts on BSC Systems and estimate implementation costs and lead times. In addition, the P259 legal text would need to be amended (i.e. probably a material change) and it would need to be confirmed that the new suggestion addresses the defect identified by P259.

To assess the suggested solution an extension to the P259 Assessment Procedure would be required to enable further Group meetings and probably further impact assessment and industry consultation. Such an extension to the P259 Assessment Procedure would effectively rule out the possibility of a 31 March 2011 implementation to align with BritNed becoming operational.

The Proposer noted that P259 was specifically intended to address a defect associated with provision of Mandatory Frequency Response by Interconnectors, which under the Grid Code is provided by the Interconnector owner (not the Users). The P259 solution recognises that the overall Interconnector imbalance is allocated to the IEA (under the BSC), so to offset the potential imbalance resulting from Mandatory Frequency Response provision ABSVD needs to be allocated to the Interconnector itself (i.e. the IEA) and not to

Users. The Group had discussed this and agreed that the Proposed Modification (option 2) was the best solution to deliver this. P259 was also intended to maintain transparency and ensure equitable treatment of Interconnectors and other providers of Mandatory Frequency Response, and the new suggestion might be viewed as discriminating between them. It could also impact the reporting of information for Interconnectors.

Modification Group members commented that the Proposed solution was chosen because the Interconnector is responsible for Mandatory Frequency response and the IEA's receives the resultant imbalance; accommodation of potential involvement of Interconnector Users had already been considered and discounted by the Group. Expanding the P259 Proposed solution as suggested would still resolve the defect, but would require additional functionality not necessary to address the P259 defect, with unknown cost/impact implications. A change to accommodate Interconnector Users, or any other arrangement for ABSVD allocation, should be a separate Modification, if it was believed to have merit; in addition, an impact on P259 timescales totally ruling out possible implementation in time for BritNed becoming operational on 1 April 2011 would not be desirable.

Another Modification Group member believed the new suggestion was not supported by any arguments not already considered by the Group, and no substantive arguments that the Proposed Modification is not an appropriate P259 solution had been presented. They believed that the P259 Proposed Modification is a relatively cheap and pragmatic solution, and does not confer any commercial advantage on Interconnectors compared with other providers of Mandatory Frequency Response.

Conclusion

The majority of the Group:

- Agreed that it is not necessary to request an extension to the P259 Assessment Procedure to consider the new suggested solution; and
- Confirmed that their final views against P259 had not changed.

Group's initial views

P259 Proposed Modification

The Group agreed that the solution assessed as P259 solution option 2 should be progressed as the P259 Proposed Modification because it has zero impact and associated cost for implementation by the Transmission Company and BritNed; other options considered had significant impacts on the Transmission Company and BritNed. Though the central systems impact is greater under this solution than some other options, the Group did not believe that it was of sufficient magnitude to be considered an impediment. None of the solutions assessed, including the P259 Proposed solution, had any mandatory impact on Parties not associated with an Interconnector required to have the capability to provide Mandatory Frequency Response.

The Group agreed that the solution chosen to be the P259 Proposed Modification (option 2) was superior to the other options considered because of the lower overall impact/complexity and cost of its implementation. The P259 solution allows the earliest implementation of the solutions impact assessed, which would allow the use of a workarounds by National Grid and BritNed to be minimised.

The Group agreed that the Proposed solution would treat Interconnectors equivalently to generators that provide Mandatory Frequency Response, and were satisfied that it would provide sufficient transparency around the provision of Mandatory Frequency Response by Interconnectors. They believed the level of transparency would be equivalent to that of generators providing Mandatory Frequency Response, and noted that ABSVD volumes are already published on the BMRS.

BritNed's response to the P259 Impact Assessment confirmed that the Proposed solution would not impact the ability to conduct trading over Interconnectors via implicit auctions. It would not impact Interconnectors not required to have the capability to provide Mandatory Frequency Response.

The Group confirmed the BMRS reporting aspect of P259 and agreed that it would be best not to restrict under the BSC what information National Grid can report for the pseudo-BM Units registered for Interconnector reporting. This would give flexibility to report other parameters that may be considered useful in future by allowing National Grid to determine what quantities should be reported. The BSC would require that any quantities reported over the BMRS have sufficient explanation to make clear the difference with standard BM Unit information.

The Group considered the extent to which the P259 Proposed Modification, and their considerations in developing the Proposed solution, had taken account of the EU Third Package. The Group noted that it was still unknown how the Third Package would be implemented in the UK and what effect, if any, it would have on the provision of Mandatory Frequency Response by Interconnectors. The Group believes that it remains distinctly possible, if not probable, that the Third Package could result in Interconnectors being designated as Transmission System Operators, which would remove the obligation to be capable of provision of Mandatory Frequency Response.

Some of the other options considered by the Group were arguably more future-proof than the Proposed solution, as they offered the flexibility to accommodate arrangements where Interconnector Users were responsible for provision of Mandatory Frequency Response with little or no change. However the Group did not believe any of the solutions were future-proof against all possible scenarios that could result from the Third Package. Given

this, and taking into account the uncertainty around the implementation of the Third Package, the Group believed that the P259 Proposed solution was the most prudent choice as it has the least overall impact/complexity and cost, and consequently the shortest implementation lead time.

However the Group noted they had been specifically asked to take into account the Third Package as much as possible, and therefore agreed to include a consultation question to determine whether Parties had any views on the Group's consideration in this area. Note that the Group has not addressed the Third Package directly, but rather tried to take into account the uncertainty around how it will be implemented and the possible implications for provision of Mandatory Frequency Response.

Potential P259 Alternative Modification

The Group noted that BritNed's impact assessment response suggested another P259 solution option. The Group agreed to include this solution in the P259 consultation as a potential P259 Alternative Modification.

The potential P259 Alternative Modification solution is set out in full in this consultation document. It is similar to option 3b in the P259 Modification Proposal.

Under the potential Alternative Modification error volumes and ABSVD would be assigned only to the IEA's Production BM Unit and Energy Account. However, instead of decommissioning the other IEA BM Unit (as under 3b), the Consumption IEA BM Unit and Energy Account would remain in central BSC Systems but would be unused ('dormant'). This arrangement would be mandatory for Interconnectors required to be able to provide Mandatory Frequency Response, but optional for other Interconnectors.

BritNed believe that their suggested solution would be simpler because allocation of all energy volumes and ABSVD to the IEA Production Account would remove the need for a decision point in the allocation of these quantities. BritNed believed this would reduce the need for IS functionality development by National Grid, BSC Agents and Interconnectors; this would not be the case for P259 (the Proposed Modification would be no more complex to implement for National Grid and Interconnectors, and the BSC Agent impact is expected to be comparable) but the use of only a single IEA BM Unit might tend to generally simplify developments for Interconnectors.

BritNed also note that this solution would allow an Interconnector to net a shortfall in provision of Frequency Response against any over delivery from normal operation. Generators that provide Mandatory Frequency Response can net in this way, so this would be equivalent treatment for Interconnectors. BritNed acknowledge that the P259 Proposed solution would also facilitate such netting, though they believe some of the other solution options considered would not have.

The Group agreed that BritNed's belief that their suggested solution would have benefits over the P229 Proposed solution warranted its inclusion as a potential Alternative. This would allow a BSC Agent impact assessment to be conducted and the views of Parties ascertained through the P259 consultation. The Group noted that any extra benefits from this option were separate to resolving the defect identified by P259 and relate to other efficiencies for Interconnectors in the management of their processes. However, some members considered that, if there was no extra cost, this would be beneficial and not inappropriate.

However, some Group members were not convinced that the IEA BM Unit arrangements should be changed in the manner suggested. These members did not have specific concerns, but believed that further consideration should be given to the underlying reasons for the current structure of the IEA BM Units/Energy Accounts (i.e. the principle of

separation of Production and Consumption) and the ramifications of altering the structure, before changing these arrangements. The Group therefore agreed to include a consultation question to ascertain whether Parties had any views on this and could identify any specific issues or risks associated with the Alternative solution.

Initial views against the Applicable BSC Objectives

The Group considered the P259 Proposed Modification and gave their initial views on whether this solution would better facilitate the achievement of the Applicable BSC Objectives compared with the current Code baseline. Not all Group members supported all arguments put forward. The Group's initial views aligned with its final views, as set out in the main Assessment Report.

Some Group members did not believe they were able to give their views against the potential P259 Alternative Modification without an impact assessment of this solution and the views of Parties (particularly Interconnectors not required to be able to provide Mandatory Frequency Response). The Group therefore gave their initial views against the Applicable BSC Objectives for the P259 Proposed Modification only.

The Group's further discussions and final views against the Applicable BSC Objectives can be found in the main P259 Assessment Report document.

5 P259 Assessment Consultation

The full responses to the P259 Assessment Procedure, the Transmission Company Analysis and the results of the industry impact assessment are all available on the [P259 page](#) of the ELEXON website.

11 responses were received to the P259 consultation. This includes one late response, from EirGrid, which the Group was unable to consider before giving its final views on P259. However, EirGrid's views aligned with the final views of the Mod Group; they strongly preferred the P259 Proposed Modification solution and did not support the potential Alternative. The results of the consultation are summarised in the table below.

| Summary of P259 Assessment Procedure Consultation responses | | |
|---|---|------------------------------|
| Question | | Response |
| 1. | Would Proposed Modification P259 help to achieve the Applicable BSC Objectives compared to the current baseline? | Yes: 10 No: 1 Other: 0 |
| 2. | Would the potential Alternative Modification P259 help to achieve the Applicable BSC Objectives compared to the current baseline? | Yes: 8 No: 2 Other: 1 |
| 3. | Would the potential Alternative Modification P259 help to achieve the Applicable BSC Objectives compared to the Proposed Modification? | Yes: 2 No: 6 Other: 3 |
| 4. | Do you agree with the Group's recommended implementation approach? If not, what is your preferred implementation approach and why? | Yes: 8 No: 1 Other: 2 |
| 5. | Are there alternative solutions that the Modification Group has not identified that it should consider? If so please describe the solution(s), including your rationale. | Yes: 1 No: 10 Other: 0 |
| 6. | Do you agree that the solutions and implementation approach developed by the Group take as much account of the Third Package as is reasonably possible? If not, please identify what further action you believe the Group should take. | Yes: 10 No: 0 Other: 1 |
| 7. | Do you believe that there are any issues or risks associated with the potential P259 Alternative solution due to its use of only the Production IEA BM Unit/Energy Account, with the Consumption IEA BM Unit/Energy Account dormant? If so, please identify them below. | Yes: 2 No: 5 Other: 4 |
| 8. | Are you associated with an existing (pre-2005) Interconnector Error Administrator? | Yes: 2 No: 9 |
| | If so, do you believe there would be benefits of opting in to the P259 Alternative solution, and what would they be? | Yes: 1 No: 2 Other: 8 |

Group's consideration of the P259 consultation responses

The Group noted the comment of Scottish and Southern Energy (SSE) that P259 was brought forward on the basis of 'Mandatory' Frequency Response, rather than 'Commercial' Frequency Response, and relates only to post 2005 Interconnectors (rather than all Interconnectors). The Group agreed that the defect identified by P259 relates specifically to provision of Mandatory Frequency Response by Interconnectors, though any interaction with the provision of Commercial Frequency Response or other Balancing Services should be considered.

The Group also noted SSE's concern that perceived benefits to National Grid as the 'Transmission Licensee' may actually accrue to 'National Grid PLC'. The Group agreed that

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it was important to differentiate in this way, but was satisfied that the benefits identified against Objectives (a) and (b) relate to National Grid as Transmission Company/System Operator (SO).

The Group noted that National Grid Interconnectors Limited (NGIL) had, as a separate company, submitted a separate consultation response to National Grid. Whereas National Grid (as Proposer of P259) was supportive, NGIL's response did not support P259 and argued that the existing BSC provisions can accommodate provision of Frequency Response by Interconnectors using the SO BM Units and treating the service as SO-SO trades. NGIL acknowledged that it is not required to provide Mandatory Frequency Response services across the French Interconnector, but believed the existing BSC provisions can accommodate the provision of frequency response across Interconnectors.

NGIL might prefer that future Frequency Response across the French Interconnector is considered as a SO-to-SO flow and allocated to the Transmission Company's SO BM Units, in the same way as volumes associated with all other Balancing Services across the French Interconnector. However, ELEXON clarified that NGIL's response was based on their overall preferred arrangements, rather than taking into consideration the interaction of the current Grid Code requirements with the BSC.

The Grid Code requires the Interconnector ('DC Converter' in Grid Code parlance) to provide Mandatory Frequency Response, therefore the Group agreed by majority that a solution treating Interconnector Mandatory Frequency Response as an SO-SO trade (i.e. with ABSVD allocated to the SO BM Units) would not be consistent with the Grid Code, would not put Interconnectors on a level footing with generators, and would not therefore address the defect identified by P259.

While they did not wish to amend their consultation response, NGIL acknowledged that the P259 Proposed Modification would address the defect identified by P259 in the context of the Grid Code requirements around Interconnector Mandatory Frequency Response provision, and would allow Interconnectors providing Mandatory Frequency Response to be treated consistently compared with other providers.

The Group noted Centrica's view that both P259 Proposed and potential Alternative resolve the defect identified by P259, and neither have any identified detrimental impact, they prefer the more cost effective solution. A Group member agreed that finding the lowest cost enduring solution that preserves the integrity of Settlement was an important factor in identifying the best P259 solution. However, the Group agreed that the implementation costs of P259 Proposed and the potential Alternative solution were not significantly different (around £74,000 for the Proposed and £64,000 for the potential Alternative) and therefore they would need to differentiate between the solutions on other grounds.

The Group noted that when considering the costs of P259 implementation, the cost saving associated with avoiding use of the National Grid workaround solution, £14,000 - £50,000 per annum, should be taken into account.

The Group noted EDF's comment that some or all Parties may be impacted by the change to report equivalent Interconnector data on the BMRS. The Group considered there was some validity in this, as Parties may need to amend their systems to make use of equivalent data for Interconnectors as it differs from the standard data which will be reported via the same BMRS fields. However, the Group concluded there was no direct impact on Parties as part of P259 implementation.

The Group noted that the main benefit identified against the potential Alternative solution was that it would tend to promote efficiency in future IS developments by Interconnectors using the 'single IEA BM Unit' arrangement, due to the removal of a decision point in allocating quantities to the Production or Consumption IEA BM Unit. However, the Group

could not identify a clear imminent instance where this general benefit would be realised in practice. BritNed already has sunk costs associated with system development for the current arrangements, while other IEAs not required to use the single IEA BM Unit model due to a requirement to be able to provide Mandatory Frequency Response are unlikely to choose to operate in this way for potential future system development benefits.

The Group believed that it was a disadvantage that the Alternative would lead to different Interconnectors having different IEA BM Unit arrangements; though it would be possible for IEAs not mandated to use the Alternative's single IEA BM Unit set-up to opt in to this arrangement, Interconnectors required to be able to provide Mandatory Frequency Response could not opt out. IEAs would also be forced to use the arrangement if they wished to achieve accurate allocation of ABSVD for any purpose other than Mandatory Frequency Response (e.g. Commercial Frequency Response or other Balancing Services), which may not be appropriate or feasible.

The Group agreed that an advantage of P259 Proposed Modification over the potential Alternative is that the Proposed would enable any type of ABSVD (i.e. for Mandatory or Commercial Frequency Response or for other Balancing Services) to be correctly allocated for any Interconnector. Another advantage is that P259 Proposed would not require change to any IEA's arrangement of BM Units, i.e. the current fundamental IEA BM Unit arrangement of both Production and Consumption BM Unit would be preserved for all IEAs. The Group therefore agreed that the P259 Proposed Modification was superior to the potential Alternative, and that they would not progress further the Alternative solution.

The Group did not rule out a single IEA BM Unit arrangement having possible benefits, acknowledging that such an arrangement has an inherent appeal and could also better match the arrangements in other energy markets. However the Group considered that consistent arrangements for all Interconnectors might be better, though this would not match the aims of P259, and that governance arrangements such as the Third Package should be taken into consideration. Overall, the Group believed that P259 was not the correct forum for consideration of a fundamental change in the constitution of IEA's or Interconnectors generally.

6 Timetable and Responsibilities

P259 process followed

| Date | Activity |
|------------|--|
| 04/05/2010 | P259 Modification Proposal raised |
| 13/05/2010 | Initial Written Assessment (IWA) presented to the BSC Panel |
| 25/05/2010 | First Modification Group Meeting |
| 02/06/2010 | Second Modification Group Meeting |
| 15/06/2010 | P259 impact assessment issued |
| 01/07/2010 | Third Modification Group Meeting |
| 13/07/2010 | P259 Industry Consultation, request for Transmission Company Analysis and updated impact assessment issued |
| 28/07/2010 | Fourth Modification Group Meeting |
| 12/08/2010 | Assessment Report presented to the BSC Panel |

Modification Group membership

| Member | Organisation | 25/05 | 02/06 | 01/07 | 28/07 |
|--------------------|---------------------------|----------|-------|-------|----------|
| Kathryn Coffin | ELEXON | ✓ | ✓ | ✓ | ✓ |
| Dean Riddell | ELEXON | ✓ | ✓ | ✓ | ✓ |
| Malcolm Arthur | Proposer/National Grid | ✓ | ✓ | ✓ | X |
| Bec Thornton | Proposer/National Grid | - | - | - | ☎ |
| Man Kwong Liu | Accenture | ✓ | ✓ | ✓ | ✓ |
| Rob Smith | BritNed | ☎ (part) | X | ✓ | ☎ (part) |
| Bill Reed | RWE Supply & Trading GmbH | ✓ | ✓ | ✓ | ✓ |
| Martin Mate | EDF Energy | ✓ | ✓ | X | ✓ |
| Garth Graham | SSE | X | ☎ | X | ☎ |
| Esther Sutton | E.ON | ✓ | ✓ | ✓ | ✓ |
| Attendee | Organisation | 25/05 | 02/06 | 01/07 | 28/07 |
| Nick Brown | ELEXON (Lawyer) | ✓ | ✓ | X | ✓ (part) |
| Maresh Gogate | ELEXON (Design Authority) | ✓ | ✓ | ✓ | ✓ |
| John Lucas | ELEXON (Design Authority) | X | ✓ | ✓ | X |
| Andy Colley | SSE | ✓ | X | X | X |
| Vijay Swaminathan | Cognizant | ✓ | X | ✓ | X |
| Arnov Chakravartty | Cognizant | ✓ | X | X | X |
| Mark Gribble | Logica | X | X | ✓ | X |

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| Glossary | |
|-------------------|---|
| Term/acronym | Meaning |
| ABSVD | Applicable Balancing Services Volume Data. |
| BSSG | Balancing Services Standing Group (a CUSC industry standing group). |
| BritNed | UK-Netherlands Interconnector. |
| IFA | UK-France Interconnector. |
| IA | Interconnector Administrator |
| IEA | Interconnector Error Administrator. |
| SAA | Settlement Administration Agent. |
| BMRA | Balancing Mechanism Reporting Agent. |
| CRA | Central Registration Agent. |
| FPN | Final Physical Notification. |
| MEL | Maximum Export Limit. |
| SEL | Stable Export Limit. |
| Implicit auction | Implicit auctions allow buyers and sellers in each country to bid for Interconnector capacity on a day ahead basis. |
| Explicit auctions | Explicit auctions allow customers to buy capacity for defined capacities, flow direction and time durations (this model is currently used for the IFA, Dutch-Belgian and Dutch-German interconnectors). |