Modification proposal:	**Balancing and Settlement Code (BSC) P227: 'Extension of the Definition of ECVAA System' (P227)**		
Decision:	The Authority[1] has decided to reject this proposal		
Target audience:	National Grid Electricity Transmission Plc (NGET), Parties to the BSC and other interested parties		
Date of publication:	30 June 2009	Implementation Date:	Not Applicable

Background to the modification proposal

The ECVAA System

Parties are required to notify the Energy Contract Volume Aggregation Agent (ECVAA) System of their contracted electricity trades before Gate Closure[2]. The ECVAA is the BSC Agent responsible for receiving, processing and validating these notifications.

The BSC stipulates that the ECVAA System[3] does not include any hardware or software used in communicating information to the ECVAA.

Contract Notifications

There are two types of Contract Notifications (CNs)[4]; Energy Contract Volume Notifications (ECVNs) and Metered Volume Reallocation Notifications (MVRNs). ECVNs notify the ECVAA System of energy volumes bought and sold between Contract Trading Parties. MVRNs inform the ECVAA System of circumstances in which the amount of energy generated, supplied or distributed is to be allocated between more than one Party. These notifications are submitted on behalf of Parties by Energy Contract Volume Notification Agents and Metered Volume Reallocation Agents ('contract notification agents').

Parties inform National Grid Electricity Transmission plc (NGET[5]) of how much they intend to put in and take off the Transmission System through the submission of Physical Notifications (PNs)[6]. Final Physical Notifications (FPNs) are required to be submitted before Gate Closure. PNs are submitted to NGET through the use of a communication system called Electronic Data Transfer (EDT[7]).

[1] The terms 'the Authority', 'Ofgem' and 'we' are used interchangeably in this document. Ofgem is the Office of the Gas and Electricity Markets Authority.
[2] Gate Closure is the last point at which Parties can notify their contract positions and occurs one hour before real time.
[3] Please refer to Section P 'Energy Contract Volumes and Metered Volume Reallocations' of the BSC for further information relating to the definition of the ECVAA System. A copy of the BSC can be found on the Elexon website.
[4] That have been considered in the FMR.
[5] It is NGET's role as System Operator (SO) to act as 'Residual Balancer' to ensure there is sufficient supply in the system to meet demand. NGET are incentivised by the SO incentive scheme to ensure that they take the most efficient actions to balance the system. Further information on NGET's incentive scheme can be found on Ofgem's website at www.ofgem.gov.uk
[6] These set out the amounts Parties intend to generate or demand within a particular Settlement Period. Further information can be found on National Grid's website at www.nationalgrid.co.uk
[7] Within the EDT network users have responsibility for providing and arranging their own communication lines and are able to install the resilience systems they consider most appropriate for their business needs.

Imbalance Charges

The information contained in CNs is used to determine whether the volume of energy that Parties have contracted to buy and sell matches the metered volumes that they put into and take out of the electricity transmission system.

Parties are not balanced if their notified volumes and metered volumes do not match. For each Settlement Period[8], Parties that are not in balance are charged the relevant imbalance price for their imbalance volume ('cash-out' price). Cash-out prices are designed to provide important commercial incentives to Parties to manage their level of imbalance.

Communication services

Parties have a choice of two centrally provided communication options to connect to the ECVAA System; the High Grade Service and the Low Grade Service. These are outlined further below.

a. *The High Grade Service*

The High Grade Service[9] provides Parties with a telecommunications facility that transmits communications, via a dedicated line, from a router[10] located at a participant's site to BSC central systems. Once authorised by Elexon this High Grade Service is provided by a BSC Agent (in this case Logica), who provides the participant with the router at its site that connects to the participant's network infrastructure. The participant is responsible for connecting its internal systems to the router on its site[11].

The High Grade Service comprises three elements; the participant's site, the CVA Communications Infrastructure (the communication system) and the BSC central system[12]. There are 68 Parties that have a dedicated High Grade line and of these, five have more than one line[13]. From April this year participants have access to a range of different High Grade Service options with associated costs, from which they can choose the best option to meet their business needs.

b. *The Low Grade Service*

The Low Grade Service transmits communications from the router on the participant's site via the public internet to the internet portal for BSC central systems. Communications received by the Internet Service Provider (ISP) are then transmitted to the router on the BSC central systems site. Participants are responsible for providing their own link to the internet. The main elements of this service are: the public internet and the Participants ISP, the CVA Communications Infrastructure and BSC central

[8] The National Electricity Transmission System is balanced in 48 half-hourly Settlement Periods. Party's imbalance positions are also calculated on a half-hourly basis.
[9] The High Grade Service facilitates data communication from participant systems to BSC Central Systems.
[10] A router is a device in a network that handles message transfers between computers.
[11] Further information on Participant's responsibilities in this regard can be found in the Communications Requirement Document (CRD). A copy can be found on Elexon's website.
[12] Figure 1.1. in the Final Modification Report (FMR) outlines the structure of this service. The red area is Participants site, the blue area is the CVA Communications Infrastructure and the green area is the BSC central system.
[13] As of 10 December 2008 t27 parties had a single High Grade Service line, 16 Parties had two Service lines and three Parties had three Service lines.

systems[14]. Participants are responsible for providing their own links to the internet. There are 59 Parties that have access to the Low Grade Service only.

c. Procurement of communications service

Currently, the CVA Communications Infrastructure and BSC central systems are procured by Elexon. As part of Elexon's Project Isis[15], through consultation with industry it procured the BSC Agent contract for the provision of communications services to industry[16]. Elexon awarded this contract to Logica, and the contract was effective from April 2009.

System failure

There are two types of system failure related to CNs; an ECVAA System Failure and a central communications failure (communications system failure).

a. ECVAA System Failure

The BSC considers that an ECVAA System Failure has occurred where there is a failure in the ECVAA System. This does not include any breakdown or failure in communications or in a Party's system. Under current arrangements, when there is an ECVAA System Failure, Parties are able to submit and re-submit notifications after Gate Closure for the Settlement Periods affected by the ECVAA System Failure.

b. Communications system failure

Currently, a failure in the communications system is perceived to have occurred if there is a failure in any of the hardware or software that forms part of the communications system. When there is a failure in the centrally provided communications system Participants cannot successfully submit CNs. The BSC does not currently make provision for the resubmission of CNs after Gate Closure or where there is insufficient time before Gate Closure in the event of a communications system failure.

c. Implications

When there is a communication system failure, the BSC central system utilises the information submitted in a Party's last successfully submitted CN to determine its imbalance position. Any Party that is found to be out of balance will incur the associated imbalance charges. However, there may be circumstances in which, had a Party been able to submit a CN, they would have been in balance and so would not have incurred cash-out charges.

Previous modification proposal P1 'Extension of the definition of ECVAA system failure'

Modification proposal P1 sought to extend the definition of an ECVAA System Failure to the High Grade Service to enable Parties to re-submit CNs in the event of a failure in the High Grade Service. An alternative solution was also developed that extended these

[14] The boundaries for this service are outlined in the Requirements Specification and Assessment Consultation for this proposal issued on 24 October 2008. This can be found on Elexon's website.
[15] Further information on Elexon's Project Isis can be found on Elexon's website.
[16] This was as part of the BSC Services Agreement (BSCSA). Further information on BSCSA can be found on Elexon's website.

provisions to both the High and Low Grade Service. The Authority rejected both the proposed and alternative modifications.

In its decision, Ofgem highlighted:

- its view during the development of NETA that the risks associated with notification agent failure should be borne by the contract notification agents themselves to ensure that notification agents have an incentive to develop and maintain robust systems for market operation;
- that participants should be allowed to determine their own approach to risk management and develop their systems accordingly, but that this might be difficult due to the contract in place at the time (the 'legacy contract'); and
- therefore as an interim measure, the provisions for resubmission under the ECVAA System Failure process could be extended to centrally provided elements of the communications system as proposed by the modification proposal, subject to an appropriate "sunset" provision being in place. We note that in the intervening period the industry did not come forward with such a proposal.

Ofgem accepted the need to allow for a period of time for participants to explore alternatives to allow them to better manage their risk, in particular the extent to which competition in communication services could be introduced (where it would be economic and efficient to do so). The letter therefore indicated that the proposal would have been acceptable, but only for the remaining duration of the legacy contract.

Comparable communications systems

Elexon commissioned a report from a specialist communications consultancy to examine the current communication system[17]. The report was provided in January 2009 and concluded that the communications system met the general availability and redundancy requirements of a *Transaction Management Service (TMS)*[18] and, in relation to a comparable overseas electricity model, offered more options. However, the report concluded that an alternative communication service model allowing more diverse offerings to users would provide them with the ability to attain a higher level of value for money, while providing an efficient and resilient network solution.

The modification proposal (P227)

The proposal seeks to implement three main changes. Firstly, it introduces the concept of a 'Notifications System Incident' to include both instances of a failure in the centrally provided communication system and the ECVAA System. In these circumstances Elexon would be able to permit Parties to re-submit notifications utilising the re-submission process currently used solely in the event of an ECVAA System Failure.

Secondly, this proposal makes provision for Parties (or agents) to notify Elexon of a 'Notifications System Incident'. Parties would notify Elexon no later than the end of the business day following the day on which the Party considered the incident to have occurred. We understand that it is intended that Elexon would then have up to 16 working days after the settlement date to which the failure relates, to investigate and

[17] This was in response to a letter sent to the BSC Panel from Ofgem. A copy of this letter can be found on Elexon's website.
[18] These are systems used to manage transactions. The report outlines the online gambling system and the European stock exchange system as examples of TMS services.

confirm the Notifications System Incident. In the event that an incident was confirmed by Elexon, Parties would be able to resubmit.

Lastly, the proposal amends the definition of the communication system boundary between Parties and Elexon central systems (Party System Boundary) such that it is removed from the BSC. Instead, this definition would be outlined in the Communications Requirement Document (CRD)[19]. Consequently, any future changes to the definition of communication system boundaries could be made by the Panel and a modification proposal would not be needed[20].

BSC Panel[21] recommendation

At the Modification Panel meeting on the 9 April 2009 the Panel recommended implementation of the proposal. All the Panel Members that attended the Modification Panel meeting recommended implementation of this proposal.

The Authority's decision

The Authority has considered the issues raised by the modification proposal and the Final Modification Report (FMR) dated 14 April 2009. The Authority has considered and taken into account the responses to Elexon's[22] consultation on the modification proposal which are attached to the FMR[23].

The Authority has concluded that implementation of the modification proposal will not better facilitate the achievement of the applicable objectives of the BSC[24].

Reasons for the Authority's decision

The majority of respondents to the consultation on the modification proposal agreed with the Proposer that it would facilitate the achievement of applicable objectives (b) and (c) and would not better facilitate the applicable objective (d) when compared to the current baseline. These objectives are as follows:

(b): The efficient, economic and co-ordinated operation of the GB transmission system.

(c): Promoting effective competition in the generation and supply of electricity, and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity.

(d): Promoting efficiency in the implementation and administration of the balancing and settlement arrangements…

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[19] The CRD outlines the technical specifications of the High and Low Grade Services and the responsibilities for their maintenance and operation.
[20] The CRD is a code subsidiary document. Section F of the BSC outlines that the Panel may modify (whether by way of amendment, deletion, addition, replacement or otherwise) existing Code Subsidiary Documents or create additional Code Subsidiary Documents. Further information on Section F of the code can be found on Elexon's website.
[21] The BSC Panel is established and constituted pursuant and in accordance with Section B of the BSC.
[22] The role and powers, functions and responsibilities of Elexon are set out in Section C of the BSC.
[23] BSC modification proposals, modification reports and representations can be viewed on the Elexon website at www.elexon.com
[24] As set out in Standard Condition C3(3) of NGET's Transmission Licence, see: http://epr.ofgem.gov.uk/document_fetch.php?documentid=4151

On balance we consider that this proposal is likely to have detrimental impacts on the efficient and economic operation of the GB transmission system, along with negative impacts on competition in the generation and supply of electricity. Whilst the proposal has some potential positive benefits, we consider that these benefits are likely to be outweighed by the negative impacts of the proposal on parties' incentives to ensure the effectiveness of the communication system.

In particular, for the reasons outlined below, we consider that the proposal is likely to significantly dilute incentives on parties, to ensure delivery of effective and robust communication systems that meet their needs. We consider that Parties are best placed to manage many of the risks associated with the delivery of communications services and that it would not be appropriate to dilute their incentives to do so. We consider that by diluting these incentives the proposal has detrimental impacts against objectives (b) and (c). With regard to applicable objective (d), we agree with the reasons provided in the FMR and by respondents that this proposal would create a likely detrimental impact on Elexon and central systems administration. This is because Elexon, along with the current communication service provider (Logica) would need to identify and investigate re-submissions and process communication system failures. We therefore do not consider that this proposal better facilitates this objective.

We consider the proposal to be neutral against the remaining objectives. Our views are outlined below.

Impediments to Party self-balancing (contracting forward)

The Proposer and respondents consider that under current arrangements some Parties are exposed to the risk of imbalance charges when there is a communication system failure. In light of this risk, respondents consider that there are disincentives on Parties to "self balance" (or contract forward) when there is a communication system failure and that this could increase the burden on the SO to bring the system into a balanced position.

They consider that this proposal would remove this disincentive by enabling Parties to re-submit CNs and therefore mitigate the risk of imbalance charges and reduce the burden on the SO to balance supply and demand. However, communication system failures are one of many factors that may influence incentives to self balance and given the low frequency of such communication system failures (there have only been nine communication system failures since April 2001[25]) we consider this proposal will have only minimal positive impact on such incentives and the burden on the SO to balance supply and demand.

Generator behaviour

Ofgem notes that NGET and some respondents consider that this proposal would reduce the frequency with which the SO will take balancing actions when there is a communication system failure because it will reduce incentives to deviate from FPNs. When communication system failures occur just before Gate Closure there could be an incentive on Parties to deviate from their FPN, such that their metered volumes match their last submitted CN, in order to avoid imbalance charges (at present the charge for

[25] This demonstrates that the instances of these failures are not common. For further information please refer to the First Requirements Specification and Assessment Consultation for this proposal issued on 24 October 2008.

deviating from an FPN is set to £0)[26]. NGET estimated that under current arrangements, the potential costs to the SO of a communication system failure could be up to £51,000, depending on prevailing market conditions. This estimate is in part based on the assumption that PN volumes for generators are equal to their successful CNs.

Whilst we acknowledge that this proposal is likely to reduce any incentive on Parties to deviate from their FPN and so potentially reduce the burden on the SO, we have not been provided with sufficient information to enable us to determine the relative magnitude of this benefit. For example, neither the FMR nor respondents have provided information regarding the estimated frequency with which deviations from FPNs occur directly as the result of communication system failures. Furthermore, since FPNs are not the only consideration for the SO in forecasting and balancing supply and demand, we believe any benefit to be minimal on the basis of information provided in the FMR.

Incentives to ensure an efficient system

Some respondents considered that this proposal could create a more appropriate alignment between the risks Parties face and their ability to manage them when there is a communication system failure by permitting re-submission of CNs (and so avoiding the risk of imbalance charges) in the event of a failure. They further suggest that this could help promote market entry. However, Ofgem considers that any potential improvements to risk re-alignment for Parties are likely to be outweighed by an adverse impact on efficiency and competition in the medium to longer term.

We consider that this proposal is likely to dilute the incentives on parties, to secure an efficient communications system on an ongoing basis, when these parties are in the best position to manage many of the risks. In particular, we consider it would reduce ongoing incentives on parties to:

i. Maintain accountability over the communication service provider to ensure an efficient communication system; and
ii. Choose the appropriate level of service, including securing efficient arrangements when the current contract comes to an end.

i. Maintaining accountability over the communication service provider to ensure an efficient communication system

The Authority considers that this proposal would reduce the incentives on parties to continue to maintain accountability for the communication service provider to ensure the effectiveness of the communication system in areas where parties would effectively become collectively insured from the risk of a communication system failure. We consider that in the medium and longer term this would have a detrimental impact which is likely to erode the efficiency and resilience of the communications system so having a consequent impact on the efficiency of the Transmission System. For instance, the dilution of effective incentives on parties to maintain accountability may over time lead to degradation in quality of service. With the risk of exposure to imbalance charges as a result of a communication system failure removed, this could mean that over time communication system failures become more frequent to the extent that there is less confidence in the system, so impeding party self-balancing. For this reason we believe

[26] This is because imbalance positions for Parties are calculated based on their last successful CN. So if this last successful CN does not match the FPN that generators generate to, because of a communication system failure, it means that a Party's CN and metered volumes may not match. Therefore, they will be exposed to imbalance charges (unless they deviate from their FPN).

that the proposal could create negative impacts on the efficient, economic and coordinated operation of the GB transmission system (namely objective (b)).

ii. Choose the appropriate level of service, including securing efficient arrangements when the current contract comes to an end

The Authority considers that this proposal would have detrimental impacts on the incentives for parties to choose appropriate levels of communication services generally and, in particular, when the current contract comes to an end.

If implemented, this proposal is likely to dilute the impact of recent developments in the delivery of communication services by reducing incentives on parties, generally, to ensure that communication services are fit for purpose and to seek different levels of service according to their needs[27]. This is also likely to stifle future developments and innovation in communication services provision that could improve the way Parties manage the risk of a communication system failure[28]. It may also lead to reductions in the levels of resilience of the communications system.

In particular, this proposal could dilute current incentives for parties to procure new effective contracts for communication services that will provide an efficient and resilient communication service either with the current and/or an alternative service provider, when the time is appropriate. We note that Elexon consulted with industry on the procurement of the BSC Agent contract for the provision of communication services and after consultation this contract was awarded to Logica. We also note that through industry engagement a contract was agreed that secured improvements to the level of communication service parties currently receive. For example, under the terms of the current contract for communication services, parties have the option to access a differentiated level of service compared to that provided under the previous contract[29]. The options vary depending on the desired volume of information they wish to submit, and the level of resilience they require (back-up and disaster recovery requirements)[30].

Furthermore, we consider that the consultancy report commissioned by Elexon provides evidence supporting this view. The report suggests that a communications model with a different boundary between centrally and non-centrally provided elements of the communication system providing parties with the choice to contract with any service provider for communications services would be feasible. This suggests a different allocation of risks in the event of a communication system failure between Parties and BSC central systems. We note that any boundary between centrally and non-centrally provided elements of the communication system would need to be explored carefully in considering such a model. In particular, consideration would need to be given to which parties (e.g. generators and suppliers, notification agents, or BSC central systems) are best placed to manage the risks associated with failures of different elements of the communications system. However, a potential impact of the P227 proposal would be to dilute the incentives on parties to explore this further. We recognise that the extent to which parties including generators and suppliers and notification agents may wish to

[27] For example, the proposal may create incentives for some Parties to apply for lower levels of service that although enable them to re-submit their CNs, may not be wholly appropriate. This would be because these Parties would be less concerned about the level of resilience or disaster recovery they receive because they can re-submit any failed notifications resulting from a communications failure.
[28] The likelihood of this occurring depends on the number of Parties that do not take up higher levels of services as the result of being able to re-submit CN's when there is a communications failure.
[29] Under the previous contract there was only one High Grade line option available to Parties.
[30] Further information on the High Grade communication options available to Parties can be found on Elexon's website.

utilise alternative service providers at this time is beyond the scope of this proposal. However, for the reasons we have outlined above, it is important to ensure that the BSC arrangements are not modified to dilute incentives on parties to explore any such changes in future, including the use of alternative service providers.

We note that several respondents suggested that the communications models examined in the consultancy report were not directly comparable. However, we consider that the principles contained within the report are directly relevant to the consideration of this proposal against the applicable objectives.

In summary, we consider that it is important that Parties retain robust incentives governing communication systems. In particular, to the extent that a non-physical trader, generator or supplier (or notification agent) is dissatisfied with communications systems service levels, then, with effective incentives, it might seek competitively to differentiate itself by seeking alternative communications solutions to the services that are currently provided by the communication service provider (to the extent that these are available). By diluting these incentives, the proposal therefore potentially has negative impacts on system efficiency (objective (b)) and dilutes competition in the generation and supply of electricity so having detrimental impacts against objective (c).

Safeguard mechanisms

Ofgem considers that this proposal offers insufficient safeguards against the potential for system abuse and this could have an adverse effect on competition under objective (c). For example, we note that the proposal would implement software to assist in the monitoring and identification of failures on the Low Grade Service[31]. However, no similar process is proposed for the High Grade Service and this could therefore leave this area of the system open to potential abuse.

We are aware that one respondent suggested that some monitoring should be undertaken to minimise the risk of some parties taking advantage of the re-submission facility to overcome their own internal notification problems. Ofgem considers that a form of monitoring mechanism could help to guard against possible sub-optimal incentives.

We also note that this proposal would not implement or develop a pre-defined procedure for ensuring that Parties do not abuse the re-submission process. Therefore, we agree with one respondent that highlighted the potential risk that some Parties could take advantage of the resubmission facility to overcome internal notification issues and this could distort competition. Although, we note the Panel's view that this could be a risky strategy for Parties we do not believe this precludes the risk of it occurring.

Communication Requirements Document (CRD)

If implemented, this proposal would amend the definition of Party System Boundary so that the definition would be outlined in the CRD instead of the BSC. This would allow the Panel to make amendments to this definition, following consultation, but without having to follow the full code modification process provided in Section F of the BSC.

[31] Further information relating to the software proposed to be implemented can be found in the Requirement Specification and Assessment Consultation for this proposal issued on 24 October 2008. This can be found on Elexon's website.

Ofgem considers that for the reasons we have outlined above, changes to the Party System Boundary could have a material impact on the applicable objectives. We therefore consider that it would be inappropriate for the Panel to make such changes without appropriate checks and balances. Therefore, given the potential consequences of any changes to the Party System Boundary we do not consider that the proposed amendment to the definition itself would better facilitate the achievement of the applicable objectives.

Ian Marlee
Director, Trading Arrangements

Signed on behalf of the Authority and authorised for that purpose.