Modification proposal:	**Balancing and Settlement Code (BSC): Facilitating Microgeneration within the BSC (P218)**		
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:	20 May 2008	Implementation Date:	n/a

Background to the modification proposal

BSC Modification P218 was raised by Good Energy (the proposer) on 23 October 2007 with the aim of facilitating the increased settlement of microgeneration export. This would be achieved by treating it in a similar way to non-half hourly (NHH) unmetered supply (UMS), with the aim of reducing the associated industry costs and the complexity of settlement processes for suppliers and supplier agents.

Currently, only a very small proportion of microgeneration sites are registered in settlement. Under the present arrangements established by P081, suppliers are required to register a separate non-half hourly export MPAN for each microgeneration site in order to register export for settlement purposes. The proposer suggests that the cost to the supplier associated with separate export meters are greater than the energy benefit, due to the relatively small amounts of energy concerned, and that therefore suppliers may incur a loss by entering these sites into settlement, accounting for the small proportion of sites registered. As a result, surplus energy from microgeneration exported back to the system is spilled and smeared across NHH suppliers as part of the GSP Group Correction process.

In April 2007, Modification Proposal P213 was raised by E.ON UK with a similar aim of facilitating the increased settlement of microgeneration exports and reducing the transaction costs of doing so. This was to have been achieved by allowing suppliers to register both imported and exported energy under a single MPAN. However, this Modification Proposal was rejected by the Authority on the grounds that it would not better facilitate the achievement of the applicable objectives of the BSC.

The modification proposal

The modification group developed two modifications under P218 – a Proposed Modification and an Alternative Modification. These are summarised below and are described in more detail in the modification group's Final Modification Report (FMR) to the BSC Panel.

Proposed Modification

The proposed Modification intends to facilitate the settlement of microgeneration export by removing the requirement for an NHH export meter to be installed. It is intended that the P218 solution sit alongside the existing P081 process as another option for suppliers

[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.

to enter microgeneration exports into settlement. This would be done by treating the microgeneration export in a similar way to unmetered supply.

A new agent – the Unmetered Export Agent (UEA) would be created to collate microgeneration data and create Export Estimated Annual Consumptions (EACs). These EACs would be calculated from information about the microgeneration sites provided by the suppliers and a pre-determined 'export factor'. They would then be passed into settlement using the existing NHHDA systems.

Suppliers would be able to register a single portfolio Export MPAN for microgeneration in each GSP group per distributor, with the UEA aggregating the annual exports for all sites within a supplier's portfolio for a particular distributor. This value would then be entered into the settlement process.

The proposer considered that this Modification Proposal would better facilitate the achievement of relevant objectives (c) and (d) as set out in Standard Condition C3(3) of NGC's Transmission Licence.

In respect of relevant objective (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), the proposer considered that the modification would promote competition in the market for the purchase of exported microgeneration.

In respect of relevant objective (d) (promoting efficiency in the implementation and administration of the balancing and settlement arrangements) the proposer considered that the modification would further this objective by reducing the costs and complexities of the market for the smallest generation sites, and making the administration of these sites more efficient. It would also improve the accuracy of settlements as currently most microgeneration is outside the settlement arrangements and therefore ends up in the Group Correction Factor.

The proposer also suggested that the modification would meet the Authority's duties with respect to sustainability.

Alternative Modification

The Alternative Modification was developed by the modification group and would create a similar process to the proposed modification, with the distinction that the UEA would collate the microgeneration information into a Supplier Purchase Matrix (SPM) file. This information would then be sent directly to the SVAA rather than the NHHDA.

The process for registering the microgeneration with the UEA and the process of calculating the EAC would be the same as in the proposed modification. However, the supplier would not be required to register portfolio MPANs for the export and would therefore not be required to appoint any agents.

BSC Panel[2] recommendation

The Draft Modification Report, and respondents' views to it, was considered by the BSC Panel at its meeting on 10 April 2008. The Panel voted in favour of not approving the

[2] The BSC Panel is established and constituted pursuant and in accordance with Section B of the BSC.

Proposed and Alternative Modifications. They recommended rejecting both on the grounds that neither would better facilitate the applicable BSC Objectives.

The Authority's decision

The Authority has considered the issues raised by the modification proposal and the Final Modification Report (FMR) dated 11 April 2008. The Authority has considered and taken into account the responses to Elexon's[3] consultation on the modification proposal which are attached to the FMR[4].

The Authority has concluded that implementation of the modification proposal will not better facilitate the achievement of the applicable objectives of the BSC[5].

Reasons for the Authority's decision

Objective (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

The proposer suggested that this modification proposal would better facilitate objective (c) of the Code. This would be achieved by making it less costly and therefore more attractive to enter microgeneration into settlement. This in turn would make the purchase of microgeneration more attractive to suppliers, thereby increasing competition in the market for the purchase of exported electricity from microgeneration sites.

This conclusion depends upon the costs of implementing the proposed modification being less than the current costs of entering microgeneration into settlement using the P081 solution, and less than the combined value of energy currently spilled onto the system and the additional uptake of microgeneration enabled by the P218 process.

In consultation responses, BSC parties were unable to provide detailed cost estimates for implementing the proposed modification due to limited information and time. However, respondents outlined qualitative impacts and broad estimates for implementing the proposal. One large supplier estimated total costs of £3-4 million for developing an automated process for settlement and other business systems. Suppliers noted that even if they chose not to use the P218 solution they would still need to modify their meter registration processes so that they could deregister meters using the P218 solution on export sites that they win. Those suppliers operating under P081 would also need to allow for transfer to the arrangements of P218.

Unfortunately the group assessment provided little information on the materiality of the current level of microgeneration spilling on to the system (the settlement error) or the impact entering microgeneration sites into settlement using this proposal would have on the market for purchasing surplus energy from microgeneration sites.

[3] The role and powers, functions and responsibilities of Elexon are set out in Section C of the BSC.
[4] BSC modification proposals, modification reports and representations can be viewed on the Elexon website at www.elexon.com
[5] As set out in Standard Condition C3(3) of NGET's Transmission Licence, see: http://epr.ofgem.gov.uk/document_fetch.php?documentid=4151

Clearly, the proposed solution would reduce the transaction costs of settlement associated with export metering. As a result it is well suited to the smaller capacity microgeneration customers where it is less economic to install NHH meters under P081 arrangements.

From a supplier's perspective, the key determinants for implementing the P218 solution will be the volume of exports they obtain from smaller capacity microgeneration and the costs of implementation. By way of illustration, if we assume a supplier's costs of implementing systems are in the region of £100,000, they would require around 400 microgeneration export customers with an average annual surplus of 1GWh to re-coup the initial costs over five years.[6] However, if implementation costs are higher or energy exports were lower, it would not be economic to implement the proposal.

The costs associated with the Alternative Modification are likely to be lower than those associated with the original Modification Proposal (because it is not necessary to register an Export MPAN and would bypass the NHHDA). However, suppliers did not express much support for using the alternative to enter microgeneration into settlement.

The proposal could be expected to facilitate settlement of microgeneration and improve competition for microgeneration export customers by smaller niche suppliers. This is because smaller suppliers would particularly benefit under P218 arrangements relative to the status quo as they would receive estimated microgeneration export volumes proportionate to the share of microgeneration export customers they have at a given GSP. Currently they are apportioned a share of group error factor based on their market share of NHH load at a GSP.

Nonetheless, this is a relatively small segment of the market and it should be noted that the majority of suppliers said that they do not intend to implement or use the arrangements.

Further, there are also significant implementation costs associated with the proposal as well as additional processes for suppliers to take into account and manage associated with settlement of microgeneration. These are discussed in more detail under objective (d) below.

Objective (d) – promoting efficiency in the implementation and administration of the balancing and settlement arrangements

The proposer suggested that this modification proposal would better facilitate objective (d) of the code, as making it easier for suppliers to enter microgeneration into settlement would lead to a higher level of accuracy and efficiency in the settlement process. Currently, the majority of microgeneration exported is not entered into settlement, and is instead included in the Group Correction Factor. The implementation of this modification could improve the extent to which the energy is more correctly allocated to the relevant supplier.

P218 would be positive for settlement accuracy by accounting for some of the spill as coming from microgeneration exports. However, Ofgem notes that a number of members of the modification group expressed concerns that using an estimated value for the

[6] We assume upfront costs are amortised over 5 years at 10%.

settlement of microgeneration would replace one type of error with another type of error into the settlement process rather than improving efficiency.

At the present time, data on microgeneration exports from different types of installation is very limited, and it would therefore be difficult to obtain accurate estimates of the volume of electricity exported. However, it is likely that the estimates will be more accurate than present practice, which assumes exports are zero. Furthermore, the estimates could be improved as more information comes to hand on microgeneration performance, although differences would continue to exist because the variation in the circumstances of the individual sites.

The larger impact on efficiency of balancing and settlement arrangements is likely to come from the set up costs of £400,000 Elexon estimated for establishing a new BSC agent, the UEA. This is a very substantial cost relative to the current size of the market and the meter reading costs the proposal avoids. Furthermore, the implementation of the modification proposal would create a dual process for entering microgeneration into settlement: the existing P081 process and the P218 solution. This would increase the cost of implementing existing industry arrangements because it also involves introducing additional processes to ensure transfer between the methods. It is therefore important to consider potential future take up of this option and how long the solution is likely to be effective. We note that the Government is currently finalising its policy on smart meters but it seems likely that smarter metering will be adopted for new meters in the relatively near future. Microgeneration customers are likely to be a relatively strong case for smart metering. It therefore seems likely that the P218 process is to be an interim rather than a permanent solution, and would potentially need to be unwound in the future. This further reduces the efficiency of implementing the modification and adds to the costs associated with the proposal overall.

Conclusions

On balance, having considered P218 in relation to the relevant objectives, we are not satisfied that P218 would sufficiently facilitate competition relative to the baseline to justify the overall implementation costs introduced by this proposal.

Further Thoughts

Ofgem recognises that microgeneration has the potential to contribute to carbon emissions reduction targets, and is committed to ensuring that the market rules should not unduly impede the wider uptake of microgeneration. We welcome proposals to address deficiencies in the settlement arrangements.

Although most microgeneration sites are not being entered into settlement currently we expect that P218 would have limited impact on the market for microgeneration exports in the short term. Ofgem's recent review of the market for exported electricity from domestic microgeneration suggests that reasonable export tariffs are available which largely reflect the value of microgeneration as though it is being settled. As such we do not think that the low registration of microgeneration exports in settlement is currently a particularly significant barrier to the uptake of microgeneration or to the associated reductions in carbon dioxide emissions at present.

Nonetheless, as the volume of unregistered microgeneration grows, so too will the volume of energy withheld from settlement and this will have an increasing impact on the

accuracy of all NHH settlement. In order to find a workable solution to this issue it will be necessary to consider arrangements to make it easier and less costly to enter microgeneration into settlement without incurring such high implementation costs.

Ofgem plans to convene a meeting of the Microgeneration Forum in June and will use this opportunity to discuss with interested stakeholders how the potential benefits of better facilitating settlement of microgeneration could be facilitated without incurring such high implementation costs.

Martin Crouch
Director, European Strategy and Environment

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