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**Modification P81: 'Removal of the  
Requirement for Half Hourly Metering on  
Third Party Generators at Domestic  
Premises'**

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0.1	07/08/02	John Lucas		ELEXON Change Delivery
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### b Distribution

Name	Organisation
Each BSC Party	Various
Each BSC Agent	Various
The Gas and Electricity Markets Authority	Ofgem
Each BSC Panel Member	Various
Energywatch	energywatch
Core Industry Document Owners	Various
Other Industry Members	Various

### c Related Documents

Ref	Title	Owner	Issue date	Version
1.	Modification Proposal P81	ELEXON	03/05/02	1.0
2.	P81 Initial Written Assessment	ELEXON	10/05/02	1.0
3.	P81 Definition Report	ELEXON	11/07/02	1.0

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## 1 INTRODUCTION

### 1.1 Background and Scope

This requirements specification for Modification Proposal P81 'Removal of the Requirement for Half Hourly Metering on Third Party Generators at Domestic Premises' (P81), reference 1, forms the basis for an impact assessment of the implementation and associated issues should this Modification or an Alternative Modification be adopted. This requirements specification defines the requirements for implementation of the Modification without any evaluation or assessment of the Modification / Alternative itself. This accords with the Code Section F 2.6.6.

P81 was submitted by TXU UK LTD on 3 May 2002 and the Initial Written Assessment (IWA), reference 2, was submitted to the Panel at their meeting on 16 May 2002. The Panel agreed to submit P81 to the Definition Procedure in accordance with Section F2.5 of the Code, and a Definition Report was presented to the Panel on 18 July 2002. At that meeting the Panel agreed to submit P81 to a 3 month Assessment Procedure.

P81 seeks to remove the requirement for domestic premises with Third Party Generating Plant to have Half Hourly Metering installed, if the Exports are to be taken into account in Settlements. It suggests that this will better facilitate competition in the supply and generation of electricity, by removing an obstacle to the use of micro-generation e.g. domestic Combined Heat and Power (CHP) and photovoltaic (PV) cells.

The Volume Allocation Modification Group (VAMG) met on the 25 July to discuss the progression of P81 in the Assessment Procedure and agreed on the different profiling options that should be considered further by an impact assessment. This requirements specification details the Proposed Modification, and the additional implementation options considered at the meeting, in further detail to allow and impact assessment to be carried out.

### 1.2 Purpose and Structure of Document

The primary purpose of this document is to specify the requirements for the requisite changes to BSC Agents, BSC Parties and Party Agents and to the Code, Subsidiary and Industry documentation, in sufficient detail to enable all impacted BSC Agents, Parties, Party Agents and documentation owners to provide an impact assessment of the changes required to support this Modification Proposal.

In particular one of the main purposes of this document is to specify requirements for the requisite changes to BSC Agent functionality in sufficient detail to allow the BSC Agents to provide an initial detailed assessment of the following:

- An assessment of the cost of any changes to the contractual baseline.
- An assessment of the elapsed time required to implement the changes.
- A proposed testing strategy for the changes.
- A proposed release and acceptance strategy (e.g. whether to phase the implementation to provide a quick solution to urgent operational issues).

For the purposes of this assessment, the BSC Agents should assume that the changes will be implemented as a standalone development project managed by ELEXON.

The document is structured as follows:

- Sections 2 and 3 specify the required functionality for the changes defined within the Modification Proposal and the additional Profiling implementation options considered by the VAMG which should be impact assessed to allow the VAMG to decide which, if any should be progressed as an alternative modification proposal;
- Section 4 gives details of the possible alternative to 'domestic premises' that is currently being considered by the VAMG which may have an effect on the Profiling option implementation;
- Section 5 gives details of the potential impacts identified on BSC Parties, Supplier Agents and BSC Agents that are common to all the Profiling options considered;
- Section 6 specifies the requirements for involvement of ELEXON in the design and testing process; and
- Section 7 gives a grid showing the responses that are needed for the impact assessment.

## 2 DESCRIPTION OF PROPOSED MODIFICATION P81

P81 seeks to relax the current Code requirements, to allow Exports from domestic premises to be taken into account for Settlement purposes without Half Hourly (HH) Metering Equipment being installed. The rationale given for this is that the metering and data collection costs associated with HH Metering Equipment are disproportionate for micro-CHP and PV technologies. P81 suggests that removing this obligation will better facilitate competition in the generation and supply of electricity (BSC Objective (c)). The VAMG also supported this view.

The VAMG discussed P81 and agreed during the Definition Procedure that the definition should be as follows:

- P81 does not seek to change the current requirements for separate metering of Imports and Exports. This also means that any site wishing to have the Exports settled will need to have an Import and an Export MPAN registered.
- The Supply Licence definition of 'domestic premises' will be used, however Condition 22 of the Supply Licence will not apply.
- The preferred Profiling implementation method at the end of the Definition Procedure was to create new Export Profiles from available generation data. This was based on the assumption that it would be possible to determine and implement acceptable Profiles in a short timescale. This option and other options are detailed in this document for impact assessment.
- The timescales for implementation of the chosen Profiling method will be assessed during the Assessment Procedure.

The Definition Procedure did not address the mechanisms which should be used within Supplier Volume Allocation (SVA) for reporting Non Half Hourly (NHH) Export energy. The VAMG are considering this issue as part of the Assessment Procedure, and section 5 of this document describes their proposals in detail. The key points of their proposals can be summarised as follows:

- As many key data flows in the NHH market do not provide any mechanism for distinguishing Active Export from Active Import, it is proposed to treat Export energy as negative consumption (so, for example, generation meter advances will in general be treated as negative).

- In order to allow the Supplier Volume Allocation Agent (SVAA) to report separate totals for Export energy volumes, four new Consumption Component Classes (CCC) would be created for NHH Export energy, as described in section 5.2 of this specification.

As part of your impact assessment, you are invited to comment on whether the above represents the most appropriate method of handling NHH Export in SVA.

Detailed below is the Profiling method that is considered to be the Modification Proposal and should be used for impact assessment. The VAMG has also considered alternative Profiling implementation methods and these have been detailed in section 3.

## 2.1 New Export Profile Method

The proposed profiling method as defined in the Definition Procedure was discussed in more detail by the VAMG and they agreed that it should be implemented as follows:

- The Import MPAN for the premise would be settled under the current demand Profile Class of the premise. The VAMG recognised that settling Import meter readings on a standard demand Profile would introduce errors into settlement, and that a more accurate solution would be to develop specific Import Profiles for each combination of micro-generation technology and existing Profile Class. However, this would lead to a proliferation of Profiles, and the VAMG were concerned that the cost associated with this would be excessive and so it should not be considered further.
- The Export MPAN for the premise would be settled under the new Export Profile Class for that particular generation type, regardless of the demand Profile Class used.

The VAMG recognised that there were two broad approaches to creating Profiles for the new Export Profile Classes:

- Extending the Profile Administrator's load research programme to include customers with each micro-generation technology, and hence creating Export Profiles from a sample of actual Export data; or
- Creating Export Profiles without any additional load research, using existing data on the generation Profile of each micro-generation technology, combined with demand data from the existing load research programme.

In order to avoid unnecessary cost and delay, the VAMG propose to use the second of these methods. The method for determining the Export Profile for each micro-generation technology (to be carried out by the current Profile Administrator as part of the annual process of Profile creation) would be as follows:

- Calculate an average generation Profile (i.e. a kWh generation amount for an average installation for each half-hour of each day of the year) for a particular type of micro-generation technology. This would be carried out for each type of technology, e.g. PV cells or micro-CHP, using whatever generation data is already available from equipment manufacturers, trade associations, Suppliers or other parties with an interest in that micro-generation technology;
- Subtract this average generation Profile from the actual HH consumption data for each site in the current Profile Class 1 load research sample. This will give an (artificially constructed) Profile of what the net consumption for each customer in the existing Profile Class 1 load research sample would have been, if;
  - (a) the customer had installed the micro-generation technology in question;

- (b) the gross generation from this technology had perfectly matched the average generation Profile; and
  - (c) the customer's demand had remained unchanged.
- Convert the (artificially constructed) net demand data for each customer to (artificially constructed) Export data, by setting positive values of demand to zero, and leaving negative values unchanged. This would give an equivalent amount of "sample" Export sites to which a regression model would then be applied to give an Export Profile. This Export Profile would be in exactly the same format as the demand Profiles currently used within settlement, and would be published to Suppliers as part of Market Domain Data (MDD) in exactly the same way as the current demand Profiles are published;
  - When the premise is registered the Supplier would ensure that the Export MPAN is registered against the new Export Profile Class.

Additional points to note with regards to this proposed process are as follows:

- The reason for using demand data from Profile Class 1 ('Domestic Unrestricted') to construct the Export Profile is that it is assumed that the majority of customers with micro-generation technology would fall within this Profile Class. However, the resultant Export Profile would be used for the Export MPAN of all customers with that micro-generation technology, even if the Import MPAN was assigned to an Economy 7 or Non-Domestic Profile Class.
- As each Export Profile Class would relate to a single micro-generation technology, the profiling arrangements would not be able to take into account the possibility of a customer having more than one type of technology installed (e.g. micro-CHP and PV cells). Appropriate rules for assigning such customers to a single Export Profile Class would need to be developed and included in BSCP516, 'Allocation of Profile Classes & Standard Settlement Configurations (SSCs) for NHH SVA Metering Systems Registered in SMRS'.
- Specific Export Profile Classes would be developed for use with Export metering systems and added to the MDD, it should be noted that these are only data changes, and do not necessarily require any modifications to the MDD system or data flows. In order to assist market participant systems in distinguishing these Profile Classes, a new data item could be added to the Profile Class data in MDD, identifying those Profile Classes approved for use with Export. In addition, as described in section 5.2, there would be the option of adding extra Consumption Component Classes (CCC) for NHH Export to MDD. Please give your views on the impact on systems and processes that adding this new data item would have.

The VAMG noted that this option would work with a simple Import / Export meter but they also noted that this option could lead to inaccuracies in the settlement of both the Import and the Export of a premise.

### **3 ALTERNATIVE PROFILING IMPLEMENTATION OPTIONS**

The VAMG has identified two additional Profiling implementation methods that could be used to, these should also be impact assessed with the same additional criteria as given in section 2;

- P81 does not seek to change the current requirements for separate metering of Imports and Exports. This also means that any site wishing to have the Exports settled will need to have an Import and an Export MPAN registered.

- The Supply Licence definition of 'domestic premises' will be used, however Condition 22 of the Supply Licence will not apply.

### 3.1 Chunked Profile Method

The chunked profiling method was developed from the options discussed during the Definition Procedure and defined in further detailed by the VAMG at the first Assessment Procedure meeting on 25 July 2002. The key features of this method are as follows:

- No new Profile Classes would be created for Export metering systems i.e. Export meter readings would be settled on the existing demand Profiles.
- In order to increase the accuracy of the profiling, and avoid 'smearing' Export meter readings over the whole day, use would be made of the existing functionality for 'chunking' Profiles, based on the switching times of an SSC.

The VAMG identified two possible variants on this basic approach, differing on whether or not multi-rate metering was installed:

- In the first variant, multi-rate metering would not be used i.e. there would only be a single Export register and a single Import register. In this case, the meter readings would not provide any information on which times of the day Import and Export occurred. However, new SSCs would be created to force the Export energy into the appropriate part of the day. For example, if existing research showed that a particular micro-generation technology typically exported onto the distribution system between 10:00 and 15:00 in Summer, and 12:00 and 14:00 during the rest of the year, an SSC would be set up with these switching times.
- In the second variant, multi-rate metering would be used to obtain actual metered data for different parts of the day. At its simplest, the Export could be measured using two registers, one corresponding to those parts of the day in which Export is regarded as likely to occur, and one corresponding to those parts of the day in which Export is regarded as unlikely to occur. The difference between this and the first variant is that any Export falling outside the period in which Export is predicted to occur would be smeared over the remainder of the day, rather than being forced into the predicted hours. If required, inaccuracies could be further reduced by defining additional Export registers to further sub-divide the day. In all cases (as for any multi-rate meter), the switching times programmed into the meter would need to match the defined switching times for the SSC.

The VAMG agreed that the second of these variants is potentially more accurate than the first, but that both should be considered together, and the changes to systems and processes should be such that the customer / Supplier could chose which option they wished to be settled on. The VAMG noted that the multi-rate option could lead to increased metering and data collection costs and requested that this information should be included in the impact assessment responses.

Regardless of which variant a Supplier chooses, this method of profiling requires appropriate Import and Export SSC to be defined for each micro-generation technology<sup>1</sup>. The BSC Procedure for Changes to MDD (BSCP509) specifies that new SSC are proposed by Suppliers, and approved by the Panel<sup>2</sup>. Given the key role of these new Export SSC in ensuring the accuracy of settlement, it is anticipated that

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<sup>1</sup> As a minimum, each micro-generation technology would require a single-register Import SSC and a single-register Export SSC, to support those Suppliers who chose variant 1 (i.e. a single Export register and single Import register). Additional multi-register Import and Export SSC could also be required for those Suppliers who chose variant 2 (i.e. multi-rate metering).

<sup>2</sup> The Panel has delegated authority for approving SSC to the Supplier Volume Allocation Group (SVG).

the Panel (or SVG) would take a more pro-active role in the process, helping to define the switching times for each SSC on the basis of available data on the typical generation Profile for each technology.

The SSCs developed for use with NHH Import and Export metering systems are only data changes and do not necessarily require any modifications to the MDD system or data flows. In order to assist market participant systems in distinguishing these SSC, a new data item could be added to the SSC data in MDD to distinguish these new Import and Export Profile Classes from the existing SSC. In addition, as described in section 5.2, there would be the option of adding extra Consumption Component Classes (CCC) for NHH Export to MDD. Please give your views on the impact on systems and processes that adding this new data item would have.

The VAMG agreed that, once the appropriate SSC had been defined, profiling of Export meter readings would take place as follows:

- The Import and the Export MPAN for the premise would be settled separately but using the existing demand Profile Class of the premise.
- The Supplier would be obliged to register the Export MPAN to an appropriate Export SSC, and the Import MPAN to an appropriate Import SSC. In order to oblige Suppliers to do this, it is anticipated that the legal drafting would contain a specific obligation on Suppliers to register Import and Export MPANs only to SSC approved by the Panel for this purpose. This new obligation would be in addition to the existing obligation to choose an SSC that matched the actual switching times of the metering.
- Having defined the Export and Import SSCs, the SVAA system would automatically calculate 'chunked' Profiles for Export and Import, with zero Profile coefficients outside the time blocks selected by the Panel. These 'chunked' Profiles would then be applied to the aggregated Export and Import meter readings received from Data Aggregators, with the result that:
  - i) The main Import reading would be applied to the "Import" periods of the day and the additional Import (if using a multi-rate meter) or zeros (if using a single rate meter) would be applied to the "Export" periods of the day.
  - ii) Similarly the main Export reading would be applied to the "Export" periods of the day and the additional Export (if using a multi-rate meter) or zeros (if using a single rate meter) would be applied to the "Import" periods of the day

The VAMG noted that this option potentially has the least impact on systems and processes and does not introduce excessive errors into the settlement process. It would potentially be the preferred profiling implementation method depending on the impact assessment responses.

### **3.2 Gross Generation Option**

The gross generation profiling method was developed from the options discussed during the Definition Procedure and defined in further detailed by the VAMG at the first Assessment Procedure meeting on 25 July 2002. The key features of this method are as follows:

- The Import and Export of the premise would be metered at the boundary point and would be assigned two MPAN for Settlement purposes.
- The gross generation would be metered at the generation unit within the premises.
- The meter reader would collect the Import, Export and Generation meter readings and the NHH Data Collector (NHHDC) and NHH Data Aggregator (NHHDA) would process all three readings. It is

anticipated that this would require significant changes to the NHHDC and NHHDA systems and processes and any details of these should be given in the impact assessment responses.

- A new generation Profile for each type of micro-generation technology, for which generation or predicted generation data is currently available, would be developed.
- The SVAA systems would then calculate a gross generation and gross consumption figure from the meter readings supplied.
- The gross consumption figure would be applied to the current demand Profile and the gross generation figure would be applied to the new generation Profiles developed. The Supplier would be settled on the gross consumption and gross generation amounts.
- The DuoS charges should be calculated on only the Import and Export of the premises and so these figures would need to be passed through to the distribution business rather than the gross consumption and gross generations figures.
- Specific Generation Profile Classes would be developed for use with Import / Export metering systems and used in conjunction with a Generation meter reading. These Profile Classes would be added to the MDD and it should be noted that these are only data changes and do not necessarily require any modifications to the MDD system or data flows. In order to assist market participant systems in distinguishing these Profile Classes, a new data item could be added to the Profile Class data in MDD, identifying those Profile Classes approved for use with Export. In addition, as described in section 5.2, there would be the option of adding extra CCC for NHH Export to MDD. Please give your views on the impact on systems and processes that adding this new data item would have.

The VAMG noted that this option would be the most accurate method of settlement however it would potentially have the most impact on the current systems and processes and had reservations about its implementation. These impacts and any additional implementation issues that have not been detailed above should be mentioned in the impact assessment response.

#### **4 ALTERNATIVE TO 'DOMESTIC PREMISES'**

The VAMG discussed possible alternatives to "domestic premises" as defined in the Modification Proposal and agreed that a capacity based alternative would better facilitate competition of Supply and so would be progressed further. The Distribution Code Review Panel is currently developing a capacity banding for small generators connecting to distribution networks and this banding will be set to 16 Amps per phase (approx. 4 kW for a single phase supply and 12 kW for a 3-phase supply).

Whilst assessing the Proposed Modification and the three additional Profiling implementation options detailed in sections 2 and 3, BSC Parties and Agents should identify if the proposed Alternative to "domestic premises" would have any impact on each of these implementation options.

#### **5 ADDITIONAL IMPACT COMMON TO ALL PROFILING OPTIONS ON BSC PARTIES, SUPPLIER AGENTS AND BSC AGENTS**

This section outlines the additional anticipated impact of P81 on BSC Parties, BSC Agents and Supplier Agents common to whichever profiling option is chosen. This should be verified in the impact assessment responses.

## 5.1 Impact on Non Half Hourly Data Collectors

P81 would require NHHDCs to collect and process data from Export metering systems, for which it has been assumed that the meter advances would be negative.

This means that the Export values will be treated in NHHDC and NHHDA systems as negative consumption. This is the pragmatic approach to implementation of P81, as it avoids the need to re-engineer data flows and systems to ensure that Export readings are positive with an associated Measurement Quantity. It should be noted that in the HH market Export meter readings are treated as positive quantities and distinguished from Import by their Measurement Quantity.

In the impact assessment response please give your views on the impact on systems and processes that using negative values for Export MPAN has. Please also give the impact on systems and processes of re-engineering data flows to ensure that Export readings are positive with an associated Measurement Quantity, should the VAMG decide that it is more appropriate to do this.

Section 1.5.7.16 of Party Service Line PSL120 already requires NHHDC systems and processes to be capable of handling negative meter advances on an exception basis (e.g. to correct previous errors). However, it may be that additional changes to systems and processes would be required to cope with metering systems / MPAN for which meter advances were negative on a regular basis and also to ensure that this could only happen for Export MPAN.

It is also anticipated that a number of changes would be required to PSL120, and BSC Procedure 504 (BSCP504) for NHHDC. For example:

- Section 1.5.7.17 requires NHHDC to prepare an exception report identifying negative meter advances. This requirement is unlikely to be appropriate for Export metering systems.
- Section 4.2 of BSCP504 specifies validation rules for negative meter advances. Again these are unlikely to be appropriate for Export metering systems.

Any further changes that are thought to be necessary should be detailed in the impact assessment response.

## 5.2 Impact on Supplier Volume Allocation Agent

The Supplier Volume Allocation Agent (SVAA) is already able to receive negative aggregated meter readings from NHH Data Aggregators. It is therefore believed, subject to impact assessment of this document by the SVAA developer, that P81 could be implemented without any changes to SVAA. However, the disadvantages of this approach would be as follows:

- SVAA would not provide any explicit reporting of the total volume of Export energy. Such totals would have to be derived from existing reports, by summing the energy values for those Profile Classes or Standard Settlement Configurations reserved for Export.
- There would be an inconsistency between the Half Hourly (HH) and NHH markets, in that NHH Export energy would be assigned to the same CCCs as Import energy, while HH Export energy would be assigned to specific Export CCCs.

The way to address these deficiencies would be to add four new NHH CCCs to MDD. The following tables show the current NHH CCC, and the additional ones that would be added for Export:

EXISTING NHH CONSUMPTION COMPONENT CLASSES				
CCC Id	Measurement Quantity	Metered / Unmetered	Consumption / Losses	AA / EAC
17	AI	M	C	E
18	AI	M	C	A
19	AI	U	C	E
20	AI	M	L	E
21	AI	M	L	A
22	AI	U	L	E

PROPOSED NEW NHH CONSUMPTION COMPONENT CLASSES				
CCC Id	Measurement Quantity	Metered / Unmetered	Consumption / Losses	AA / EAC
t.b.d.	AE	M	C	E
t.b.d.	AE	M	C	A
t.b.d.	AE	M	L	E
t.b.d.	AE	M	L	A

The SVAA system would then assign each aggregated NHH meter reading to either an Active Import CCC or an Active Export CCC (depending on the Profile Class or SSC). If MDD was enhanced to include details of which SSC or Profile Classes related to Export (as described in sections 2.1 and 3), this information could be loaded automatically from MDD. Otherwise it would have to be entered into the SVAA system through some other route (e.g. manual data entry).

Any further changes that are thought to be necessary should be detailed in the impact assessment response.

### 5.3 Impact on Distribution System Operators

P81 would potentially have a number of impacts on Distribution System Operators (DSOs) outside the scope of the Code. For example, some DSO might wish to introduce new Distribution Use of System (DUoS) tariffs for NHH Export energy. However, there would also be some impacts within the scope of the Code:

- DSOs would need to define and register in MDD new Meter Timeswitch Classes (MTC) for use with NHH Export MPAN. It would probably be appropriate to set up common (i.e. nationwide) codes, rather than leaving each DSO to define their own.
- DSOs would need to define which Line Loss Factor Classes (LLFCs) were available for use with NHH Export MPANs. These LLFC would need to be defined in MDD with data item 'MS Specific LLF Class Indicator' set to 'C' (i.e. General LLF Class Export). If the DSO chose to create new LLFCs (rather than using existing Export LLFCs), the corresponding Line Loss Factors would need to be approved in accordance with BSCP528.

Any further changes that are thought to be necessary should be detailed in the impact assessment response.

### 5.4 Impact on Profile Administrator

If it were decided to use Export Profile Classes to settle NHH Export, the Profile Administrator would need to create these additional Profiles, as described in section 2.1 of this document.

## 5.5 Impact on Supplier Meter Registration Agents

Implementation of P81 would lead to the creation of new Meter Timeswitch Classes, LLFCs and depending upon the profiling option chosen, SSCs or Profile Classes. It would therefore affect Supplier Meter Registration Agents (SMRA) to the extent that they would be required to support these new items of data. There could also be an impact on software and processes if the SMRA were required to carry out additional validation of registrations. Validation which could potentially be applied at SMRA include the following:

- Validating that Export Profile Classes are only used in conjunction with Export Line Loss Factor Classes, and Import Profile Classes are only used in conjunction with Import Line Loss Factor Classes.
- Validating that Export SSCs are only used in conjunction with Export Line Loss Factor Classes, and Import SSCs are only used in conjunction with Import Line Loss Factor Classes.

Please give details of the impact of introducing these validation rules and details of any further changes that are thought to be necessary.

## 6 DEVELOPMENT PROCESS

For the purposes of this assessment, the BSC Agents should assume that the changes will be implemented as a standalone development project managed by ELEXON.

Notwithstanding, ELEXON recognise that responsibility for design, testing and implementation of the BSC Systems lies with the BSC Agent, and in order to gain assurance that changes made are consistent with the requirements, ELEXON requires visibility of these processes. The following sections give an indication of the control points required during design, testing and implementation and are supplied to provide a basis on which the BSC Agent can estimate.

### 6.1 Design

ELEXON intend that responsibility for the correctness of the design should remain with the BSC Agents, but that ELEXON should have the opportunity to review it, and identify apparent inconsistencies with the requirements. The following processes are proposed to achieve this:

- ELEXON will review changes to the User Requirement Specifications (URS), and sign the document off once review comments have been addressed.
- ELEXON will review changes to the System Specification and Design Specification, and identify any evident inconsistencies with the URS, but will not sign off the documents.

### 6.2 Testing

ELEXON intend that responsibility for software testing should remain with the BSC Agent, but that ELEXON should have some visibility of the process, in order to gain assurance that the integrity of Trading and Settlement is maintained. The following processes are proposed to achieve this:

- As part of the response to this document, the BSC Agents will provide a statement of their proposed testing strategy. This statement will be reviewed by ELEXON, and should explain how the BSC Agent will demonstrate that the changes are ready for live operation, and that there is no unplanned impact on pre-existing facilities.
- ELEXON will be provided, for information, with test plans, test scripts and other test documentation that they may request. ELEXON will review these documents, and identify any evident inconsistencies with the agreed testing strategy, but will not sign them off.
- ELEXON will have the option of witnessing appropriate elements of the BSC Agent's testing.
- The BSC Agents will provide ELEXON with a test report, summarising the testing carried out, and the results of those tests. The report will also describe any defects found during testing, and the steps taken to resolve them.

### 6.3 Implementation

ELEXON anticipate as part of the impact assessment of this document, BSC Parties and Agents will provide a high-level statement of their proposed implementation approach (describing, for example, whether a phased approach is proposed). ELEXON will review this implementation strategy as part of the Assessment Process.

BSC Parties and Agents will also give an expected implementation timescale so as to allow the Modification Group to agree an Implementation Date for P81.

## 7 IMPACT ASSESSMENT RESPONSE GRID

<b>Respondent Name:</b>	
<b>BSC Party</b>	YES / NO <sup>3</sup>
<b>Responding on Behalf of</b>	
<b>Role of Respondent</b>	(BSC Party/BSC Agent/ Party Agent/ Distribution Business/Other) <sup>3</sup>

Please respond to the impact assessment giving an indication of the impact on systems, processes and documentation and an estimate of the development cost and timescales for each of the scenarios details in the grid below.

Profiling Option	Domestic premises Impact & Cost / Timescale for implementation	"up to 16 Amp per phase capacity" Impact & Cost / Timescale for implementation
New Export Profiles		
Chunked demand Profile		
Please include any additional information / costs relating to multi-rate metering rather than single rate metering		
Gross Generation Profiles		
Please give your views on if you believe NHH Exports should be treated as negative values or as positive values with an associated measurement class		
Please give your views on if you believe the additional Consumption Component Classes are necessary.		

<sup>3</sup> Please delete as appropriate

Please give your views on if you believe the additional validation suggested for SMRA in section 5.5 is necessary.		
Please give details of SVAA impacts and further changes that have not been identified.		
Please give details of SMRA impacts and further changes that have not been identified.		
Please give details of NHHDC / NHHDA impacts and further changes that have not been identified.		
Please give details of Profile Administrator impacts and further changes that have not been identified.		
Please give details of DSO impacts and further changes that have not been identified.		
If you are a Core Industry Document owner or Code Subsidiary Document owner please give details of the changes that you believe are necessary and cost and time estimates for making the changes		

If you require any further information on any of the implementation options detailed within this document please contact Joanne Ellis on 020 7380 4316 or by email on [Joanne.ellis@elexon.co.uk](mailto:Joanne.ellis@elexon.co.uk).

Please send your responses by **5pm on Wednesday 21 August 2002** to the following email address: [Modifications@elexon.co.uk](mailto:Modifications@elexon.co.uk), to be discussed by the VAMG at their next meeting on 22 August 2002.