



OCTOBER 2002

**DRAFT MODIFICATION REPORT**  
**MODIFICATION PROPOSAL P81 -**  
**Removal of the Requirement for**  
**Half Hourly Metering on Third Party**  
**Generators at Domestic Premises**

Prepared by ELEXON on behalf of the Balancing  
and Settlement Code Panel

<b>Document Reference</b>	P81RR
<b>Version no.</b>	0.3
<b>Issue</b>	Draft
<b>Date of Issue</b>	25 October 2002
<b>Reason for Issue</b>	For Consultation
<b>Author</b>	ELEXON Limited

## I DOCUMENT CONTROL

### a Authorities

Version	Date	Author	Signature	Change Reference
0.1	24/10/02	Joanne Ellis		Initial draft
0.2	24/10/02	Joanne Ellis		For Modification Group Comment
0.3	25/10/02	Joanne Ellis		For Consultation

Version	Date	Reviewer	Signature	Responsibility
0.1	24/10/02	John Lucas / Keith Campion		Technical Review
0.1	24/10/02	Steve Francis		Quality Review
0.2	24/10/02	VAMG		Modification Group Review
0.3	25/10/02	BSC Parties		Consultation

### 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

### c References

Ref.	Document	Owner	Issue Date	Version
1.	Modification Proposal P81	TXU UK	03/05/02	1.0
2.	Modification P81 Initial Written Assessment	ELEXON	10/05/02	1.0
3.	Modification P81 Definition Report	ELEXON	11/07/02	1.0
4.	P81 Requirements Specification	ELEXON	09/08/02	1.0
5.	P81 Consultation Document	ELEXON	13/09/02	1.0
6.	Modification P81 Assessment Report	ELEXON	11/10/02	1.0

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## II CONTENTS TABLE

<b>I</b>	<b>Document Control</b> .....	<b>2</b>
a	Authorities .....	2
b	Distribution .....	2
c	References .....	2
d	Intellectual Property Rights and Copyright.....	2
<b>II</b>	<b>Contents Table</b> .....	<b>3</b>
<b>1</b>	<b>Summary and Recommendations</b> .....	<b>4</b>
1.1	Recommendation.....	4
1.2	Background.....	4
1.3	Rationale for Recommendations .....	4
<b>2</b>	<b>Introduction</b> .....	<b>5</b>
<b>3</b>	<b>History of Proposed Modification</b> .....	<b>5</b>
<b>4</b>	<b>Description of the Modification</b> .....	<b>6</b>
4.1	Proposed Modification.....	6
4.2	Alternative Modification.....	6
<b>5</b>	<b>Rationale for Panel Recommendations</b> .....	<b>7</b>
5.1	Proposed Modification.....	7
5.2	Alternative Modification.....	7
<b>6</b>	<b>Legal Text to Give Effect to the Modification</b> .....	<b>8</b>
6.1	Proposed Modification.....	8
6.2	Alternative Modification.....	8
<b>7</b>	<b>Assessment</b> .....	<b>8</b>
7.1	Implementation Method .....	9
7.2	Implementation Date .....	9
7.3	Alternative Modification Proposal .....	10
<b>8</b>	<b>Summary of Representations</b> .....	<b>11</b>
8.1	Arguments Supporting P81.....	11
8.2	Arguments Against P81 .....	11
8.3	Panel Discussion of Representations .....	11
<b>Annex 1</b>	<b>Representations</b> .....	<b>12</b>
A1.1	Summary of Representations.....	12
A1.2	Detailed Responses.....	12
<b>Annex 2</b>	<b>Legal Text</b> .....	<b>12</b>

## 1 SUMMARY AND RECOMMENDATIONS

### 1.1 Recommendation

On the basis of the analysis, consultation and assessment undertaken in respect of this Modification Proposal during the Assessment Phase, and the resultant findings of this report, the Balancing and Settlement Code Panel recommends that:

**Alternative Modification Proposal P81 should be made with an Implementation Date of:**

- 28 September 2003 if a determination is made by the Authority prior to 1 April 2003.

**Proposed Modification P81 should not be made. In the event that the Authority determines that Proposed Modification P81 should be made, the Implementation Date should be:**

- 28 September 2003 if a determination is made by the Authority prior to 1 April 2003.

**Note for both the Alternative Modification and the Proposed Modification that Non Half Hourly Export energy will be treated as Non Half Hourly Import energy in Supplier Volume Allocation Runs carried out prior to the Calendar Date of 20 January 2004 (i.e. for the Settlement Days 28 September to 27 December 2003<sup>1</sup>). After the 20 January 2004 all Supplier Volume Allocation Runs will correctly treat the Export energy as Non Half Hourly Export energy, including the subsequent reconciliation runs for the Settlement Days of 28 September to 27 December 2003.**

### 1.2 Background

Modification Proposal P81 'Removal of the Requirement for Half Hourly Metering on Third Party Generators at Domestic Premises' (P81) seeks to remove the requirement for domestic premises with Third Party Generating Plant to have Half Hourly (HH) Metering Equipment installed, if the Export energy is to be taken into account in Settlements.

The Proposer 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 New Metering Technology Working Group (NMTWG) and one of its sub committees, the Settlement Review Group (SRG), have been considering the current barriers to allowing new metering and generation technology and how these may be removed. The SRG has considered the profiling and other issues raised by P81 and some of their work has been used as a basis for progressing P81.

### 1.3 Rationale for Recommendations

The unanimous view of the Panel was that Alternative Modification P81 would promote effective competition in the generation and supply of electricity (Applicable BSC Objective (c)), by allowing Small Scale Third Party Generating Plant, below a set capacity, to have their Export energy settled on a Non Half Hourly (NHH) basis as it would encourage growth of micro-generation technologies.

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<sup>1</sup> It is estimated that the Initial Volume Allocation Run (SF) for 27 December 2003 will be carried out on 20 January 2004

The Panel agreed that the Alternative Modification better facilitates competition in the generation and supply of electricity over the Proposed Modification, as it limits the size of the Export energy that could be treated as NHH and would therefore reduce the amount of error that could be introduced into the settlement process.

XX responses to the consultation were received, XX responses (representing XX Balancing and Settlement Code Parties (BSC Parties) and XX non BSC Parties) supported the Panel's recommendations and XX (representing XX Parties and XX non BSC Parties) did not support the proposal [*insert sentence to say if they raised any new issues*]. A summary of the arguments raised during the consultation is given in section 8.

## 2 INTRODUCTION

This Report has been prepared by ELEXON Ltd., on behalf of the Balancing and Settlement Code Panel ('the Panel'), in accordance with the terms of the Balancing and Settlement Code ('the Code'). The Code is the legal document containing the rules of the balancing mechanism and imbalance settlement process and related governance provisions. ELEXON is the company that performs the role and functions of the BSCCo, as defined in the Code.

This Modification Report is addressed and furnished to the Gas and Electricity Markets Authority ('the Authority') and none of the facts, opinions or statements contained herein may be relied upon by any other person.

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## 3 HISTORY OF PROPOSED MODIFICATION

P81 was raised on 3 May 2002 by TXU UK Ltd. P81 seeks to remove the requirement for domestic premises with Third Party Generating Plant to have HH Metering Equipment installed if the Export energy from the Generating Plant is to be taken into account in Settlements. The Initial Written Assessment (reference 2) was submitted to the Panel meeting on 16 May 2002, where it was agreed to submit P81 to the Definition Procedure to be carried out by the Volume Allocation Modification Group (VAMG) supplemented with members of the SRG.

The VAMG met twice during the Definition Procedure and a Definition Report (reference 3) was presented to the Panel on 18 July 2002. The Panel agreed to submit P81 to a 3-month Assessment Procedure to be carried out by the VAMG.

The VAMG met three times during the Assessment Procedure of P81 and issued a high level impact assessment, a detailed level impact assessment and a consultation. The results of these were used by the VAMG to reach a recommendation, which was presented in the Assessment Report (reference 6). The BSC Agent costs highlighted in the Assessment Report were approximately £140,000 for the Proposed Modification and £150,000 for the Alternative Modification.

The Assessment Report for P81 was submitted for consideration at the Panel meeting of 17 October 2002. The Panel agreed with the recommendations of the VAMG and decided to submit P81 to the Report Phase. The Panel recommended that the Proposed Modification should be rejected and that the Alternative Modification Proposal be approved with an implementation date of:

- 20 January 2004 if a determination is made by the Authority prior to 1 April 2003

The Panel also recommended that the VAMG should investigate if it would be possible for the implementation date to be brought forward by allowing customers to be registered but not have the Supplier Volume Allocation Agent (SVAA) software changes to account for NHH Export energy in place for the initial Settlement Runs. The SVAA software changes would be implemented in time for later reconciliation runs for the Settlement Days affected. The VAMG views on this are discussed further in section 7.2.

On the basis of the Assessment Report, the Panel supported the VAMG view that P81 better facilitates achievement of the Applicable BSC Objectives, set out in paragraph 3 of Condition C3 of the Transmission Licence, as follows:

- (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.

A draft Modification Report for P81 was issued for consultation on 25 October 2002. XX responses, representing XX BSC Parties and XX non BSC Parties, were received. [*Insert sentence to say if the Panel recommends or rejected the Modification on the bases of the consultation responses*].

The draft Modification Report was presented to the Panel meeting of 14 November 2002 and at this meeting the Panel agreed [*insert details of any Panel decisions that take place at the Panel meeting*].

## **4 DESCRIPTION OF THE MODIFICATION**

### **4.1 Proposed Modification**

P81 seeks to relax the current Code requirements, to allow Exports from domestic premises to be taken into account for Settlement purposes without 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 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 Meter Point Administration Number registered.

During the P81 Definition Procedure the VAMG agreed that the definition for 'domestic premises' given in the Supply Licence Standard Conditions should be used:

'domestic premises' premises at which a supply is taken wholly or mainly for domestic purposes

There are also other circumstances defined in Condition 22 of the Supply Licence where the term Domestic Premises may apply. Following the consultation carried out as part of the Definition Procedure the VAMG agreed that Condition 22 would not apply.

The P81 Definition Procedure did not address the mechanisms that should be used within Supplier Volume Allocation (SVA) for reporting NHH Export energy. The VAMG considered this issue as part of the Assessment Procedure, and section 7 of this document describes the issues considered in more detail.

### **4.2 Alternative Modification**

During the Definition Procedure the VAMG also agreed that a capacity based alternative should be investigated further during the Assessment Procedure as it had been identified in the Definition consultation responses as a way of limiting the potential errors entering Settlements.

During the Assessment Procedure the VAMG agreed that the Alternative Modification would only apply to a premise where the total on site generation is no more than 16 Amperes per phase on a low voltage single (230V) or multi-phase (400V) supply, connected to a Distribution System. The rationale for this was to maintain consistency with the Distribution Code, which is currently developing a capacity banding for small generators connecting to distribution networks. This banding will be set to 16 Amps per phase, which is approximately 4 kW for a low voltage single phase supply and 12 kW for a low voltage 3-phase supply. The consultation responses during the Assessment Procedure supported this view.

When the Assessment Report was presented to the Panel at their meeting on 17 October 2002, the Panel requested a change to the legal drafting that would allow this capacity limit to be changed without requiring a modification to the Code. The legal drafting has been changed and a new parameter has been added, Small Scale Third Party Generating Plant Limit (SSTPGPL). In order to change this limit the Panel will need to consult and then submit a report to the Authority for approval. The VAMG recommend that the initial value of SSTPGPL is set as a maximum total Generation capacity of 16 Amperes per phase on a low voltage single (230 Volt) or multi-phase (400 Volt) supply, as this is the value that has been consulted on during the Assessment Procedure.

## **5 RATIONALE FOR PANEL RECOMMENDATIONS**

### **5.1 Proposed Modification**

The Panel agreed with the recommendations of the VAMG as set out in the Assessment Report (reference 6). The VAMG agreed that by allowing Third Party Generators at Domestic Premises to have their Export energy settled under a NHH Profile would better facilitate the achievement of applicable BSC Objective (c). 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 and therefore cause a barrier to Generators wishing to use that type of Generating Plant.

It was also noted that some members of the VAMG and some Assessment consultation responses indicated that allowing customers to move towards having Exports settled in the NHH Market went against the principles of the SVA arrangements. The reason for this is that it would not encourage customers to move back to the Half Hourly (HH) market should HH metering solutions became viable for micro-generation.

It was also noted that an alternative solution would be to install HH Metering Equipment that is treated under the Metering Outside of Settlement Timescales (M.O.S.T.) framework. This will allow data to be collected and enter settlements up to 14 months in arrears and will provide a source of half hourly data which could be used to determine Export Profiles for the specific micro-generation technologies and then consider if it is appropriate to allow Export energy to be settled on a NHH Profile.

### **5.2 Alternative Modification**

The VAMG discussed possible alternatives to 'domestic premises' as defined in the Proposed Modification and agreed that a capacity based alternative would better facilitate competition of Supply over the Proposed Modification, as it would limit the size of the Export energy that could be treated as NHH and would therefore reduce the amount of error that could be introduced into the settlement process.

It was also noted that expanding the type of premises that the Modification could be applied to would further facilitate competition and encourage growth of the micro-generation technologies over and above the Proposed Modification.

The Panel agreed with the recommendations of the VAMG as set out in the Assessment Report (reference 6) and agreed that the Alternative Modification should be approved and the Proposed Modification should be rejected.

## **6 LEGAL TEXT TO GIVE EFFECT TO THE MODIFICATION**

P81 requires changes to sections L, X and X-2 of the Code. The changes to the legal text of the Code in the following sections are based on version 2.0 of Section L, version 9.0 of Section X-1 and version 9.0 of Section X-2. If the baseline of the Code changes prior to implementation of P81, or if other Modification Proposals are to be implemented at the same time as P81, the legal text may need to be amended to realign to the new baseline.

A summary of the changes is given below for both the Modification Proposal and the Alternative Modification Proposal, and a detailed red lined version of the Legal text is included in Annex 2. In summary:

### **6.1 Proposed Modification**

- Section L Paragraph 2.2.1 (c) will be updated to exclude domestic premises from the need to have Half Hourly Metering Equipment installed.
- Section X-1 A definition for 'domestic premises' will be added to the definitions table.
- Section X-2 Table 8 will be updated to include the new CCC for Non Half Hourly Export

### **6.2 Alternative Modification**

- Section L A new paragraph will be inserted as section 1.5 to give details of the Small Scale Third Party Generating Plant Limit and the mechanism for changing it. Paragraph 2.2.1 (c) will be updated to exclude Small Scale Third Part Generating Plant from the need to have Half Hourly Metering Equipment installed.
- Section X-1 A definition for 'Small Scale Third Party Generating Plant' will be added to the definitions table.
- Section X-2 Table X-2 will be updated to include the definition for Small Scale Third Party Generating Plant Limit and Table X-3 will be updated to define SSTPGPL. Table 8 will be updated to include the new CCC for Non Half Hourly Export.

## **7 ASSESSMENT**

This section of the report summarises the assessment carried out by the VAMG during the Assessment Procedure. Full details are contained in the P81 Assessment Report (reference 6), which may be found on the BSC website at [www.elexon.co.uk](http://www.elexon.co.uk).

During the Assessment Procedure the VAMG considered these issues and a high level impact assessment was issued to seek BSC Party, Party Agent and BSC Agent views on the possible implementation methods for both the Proposed Modification and the Alternative Modification. The VAMG discussed the responses and from this defined the implementation solution to be used. A



detailed level impact assessment was then issued to BSC Parties, Party Agents and BSC Agents to seek views on the implementation timescale needed. A consultation document was also issued to seek BSC Party and non BSC Party views on the issues raised by P81. The majority of the consultation responses agreed with the view of the VAMG that P81 better facilitated the BSC Objectives but that the Alternative Modification better facilitated the BSC Objectives when compared to the Proposed Modification.

The responses to the consultation and both the high level and detailed level impact assessment can be found in the Assessment Report (reference 6) and the conclusions of the VAMG are detailed below. From the results of these the estimated BSC Agent costs for implementing the Proposed Modification are approximately £140,000.

## 7.1 Implementation Method

The VAMG discussed several different profiling methods that could be used for implementing Proposed Modification P81. It was agreed that the solution should be as summarised below, further details can be found in the Assessment Report (reference 6) and the Assessment consultation document (reference 5):

- “Chunked” demand Profiles with Standard Settlement Configurations (SSCs) and switching times determined from Generation data for each type of micro-generation. A demand Profile would be used for both Import and Export Metering Systems but the switching times for the two Metering Systems could be different.
- A new item will be added to the Data Transfer Catalogue (DTC) that will indicate in the Market Domain Data (MDD) flows if an SSC is to be used for Import or Export Metering Systems. This requires a change to the DTC and a change proposal has been raised to progress this. This new data item will allow Suppliers and their Agents to identify if a NHH Metering System is an Import or an Export Metering System, it will also allow the readings from any Export Metering System to be treated as positive values in the NHH Data Collection and Data Aggregation systems. The Supplier Volume Allocation Agent will then use the new data item to process the Export readings correctly in their calculations.
- New Consumption Component Classes (CCC) will be added to allow explicit reporting of the total volume of NHH Export energy. This will also provide consistency with the half hourly market, where Export energy is assigned to specific Export CCCs.

## 7.2 Implementation Date

In the Assessment Report (reference 6) the VAMG proposed an Implementation Date of 20 January 2004 but noted that it may be possible to bring this forward and allow Metering Equipment to be registered without the changes taking place to the Supplier Volume Allocation Agent Systems.

At their meeting of 17 October 2002 the Panel agreed that the VAMG should investigate if it was possible to bring forward the implementation Date for P81.

The VAMG recommend that it is possible to implement the changes to the Code and then allow the changes to the SVAA software to be implemented later. This means that Suppliers will be allowed to register Export Metering Systems against an Export SSC but from 28 September 2003 until 20 January 2004 these SSCs will be treated as Import energy rather than Export energy by the SVAA software as it is not possible to distinguish between them until the software changes are implemented.

The VAMG recommend that the implementation date is the 28 September as it the Settlement Calendar for 20 January 2004 indicates that the following Settlement runs will take place on that date<sup>2</sup>:

Run Number	Settlement Date
SF	27-Dec-03
R1	28-Nov-03
R2	26-Sept-03 27-Sept-02 28-Sept-02
R3	19-Jun-03
RF	27-Nov-02

It could be argued that, by not implementing the software changes when the Code changes are implemented, inaccuracies in BSC Party cashflows will be introduced into the Settlement calculations. This is true, however in the initial stages of introducing the micro-generation technology into the market, the uptake is likely to be small and therefore the amounts of NHH Export energy being treated as NHH Import energy are likely to be small. These small quantities of Export energy will have little effect on the overall imbalance position of a BSC Party and therefore little effect on the BSC Party cashflow. As the software will be implemented by R2 any changes in cashflow due to the Export energy will be picked up in the reconciliation runs.

An example of the potential error that could be introduced into the Settlement cashflows is:

- Max potential generation per micro-CHP unit per year = 1.5 MWh on the assumption that the customer exports all the energy generated by the unit
- Maximum potential error introduced into Settlements per year per generation unit = approx. 3 MWh

If the changes to the Code were to be implemented without the software changes it would still be necessary to implement the documentation changes on the Implementation Date. It would also be necessary to have the new SSCs approved by the Panel, and these would need to be available to those BSC Parties and Party Agents that wished to use them. The changes to the DTC would not necessarily need to have been implemented on the Implementation Date, as long as the SSC information was available to Participants. However, these changes would need to be in place before the SVAA software was implemented. Change proposals for the changes to the Data Catalogue have been raised and these are being progressed separately.

The VAMG therefore propose that an Implementation Date of 28 September 2003 is used if a determination is received from the Authority prior to 1 April 2003. This will allow the R2 run for the 28 September to be corrected when the SVAA software is implemented on 20 January 2004, leaving R3 and RF for any final changes. The time between 1 April 2003 and 28 September 2003 will allow the Profile Administrator to develop the SSCs needed and allow them to be agreed and published by the Panel.

### 7.3 Alternative Modification Proposal

The VAMG assessed a capacity based alternative to 'domestic premises' and agreed that the limit for allowing Third Party Generators to have their Export energy settled under a NHH Profile would be 16 Amps per phase for 230V single phase and 400V multi-phase as this would keep the Code in line with current changes to the Distribution Code.

<sup>2</sup> This is only an estimate of the Settlement Calendar for 20 January 2004 as the official version has not yet been published.

The implementation method of the Alternative Modification is essentially the same as for the Proposed Modification, the only change being the amount of research the Profile Administrator needs to do to determine the switching times for the new SSC. The reason for this is that it will be necessary to determine switching times for Profiles other than just the domestic Profiles. The additional cost is estimated as £10,000 and the total BSC Agent costs for the Alternative Modification were estimated during the Assessment Procedure as £150,000.

## **8 SUMMARY OF REPRESENTATIONS**

The draft Modification Report was sent out for consultation on 25 October 2002 with responses due back on 1 November 2002. XX responses were received with XX responses (XX BSC Parties and XX non BSC Parties) supporting the Alternative Modification and XX responses (XX Parties and XX non BSC Parties) against the Alternative Modification, XX further responses had no comment. A table summarising the responses received and the actual responses themselves can be found in Annex 1 of this report, a summary of the arguments brought up in the responses is given below.

### **8.1 Arguments Supporting P81**

[Insert details of the arguments raised in the Consultation supporting the Alternative Modification.

- .
- .]

### **8.2 Arguments Against P81**

[Insert details of the arguments raised in the Consultation against the Alternative Modification.

- .]

### **8.3 Panel Discussion of Representations**

At the Panel meeting of 14 November 2002, the arguments raised in the consultation responses against P81 were presented.

[Insert details of any Panel discussions relating to the consultation responses]

## ANNEX 1 REPRESENTATIONS

### A1.1 Summary of Representations

The draft Modification Report was sent out for consultation on 25 October 2002 with responses due back on 1 November 2002. The table below gives a summary of the responses and the actual responses received are attached below.

	Responses	BSC Parties	Non BSC Parties
For			
Against			
No Comment			
Total			

Representations were received from the following parties:

No	Company	File Number	No. BSC Parties Represented	No. non BSC Parties Represented
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				

### A1.2 Detailed Responses

[Insert copies of responses received]

## ANNEX 2 LEGAL TEXT

See attached document (P81 Legal drafting v11).