

ASSESSMENT CONSULTATION for Modification Proposal P222 'Provision of EAC and AA Data to Distributors'

Prepared by: P222 Modification Group

For attention of: BSC Parties and other interested parties
Responses due: 12:00 on 17 April 2008
(to: modification.consultations@elexon.co.uk)

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This document has been distributed in accordance with Section F2.1.10 of the Balancing and Settlement Code.¹

Proposed Modification P222 seeks to provide Licensed Distribution System Operators (LDSOs) with Estimated Annual Consumption (EAC) and Annualised Advance (AA) information through placing a specific obligation on the Supplier (via their Non Half Hourly Data Collector) to send a D0019 'Metering System EAC/AA data' flow at the same time as it is sent to the Supplier and Non Half Hourly Data Aggregator.

Alternative Modification P222 seeks to provide LDSOs with a snapshot of Estimated Annual Consumption through placing a specific obligation on the Supplier (via their Non Half Hourly Data Aggregator) to send a new data flow that includes a snapshot of EAC data. This would be sent quarterly.

The Modification Group (the 'Group') also obtained costs of a non-BSC solution, and for 2 methods under existing arrangements for LDSO's to obtain 'D0019-equivalent data'. These are included for information.

PURPOSE OF CONSULTATION

This consultation seeks respondents' views regarding P222 and, in particular:

- Whether the Proposed Modification would better facilitate the achievement of the Applicable BSC Objectives² when compared to the current Code baseline;
- Whether the Alternative Modification would better facilitate the achievement of the Applicable BSC Objectives when compared to the Proposed Modification;
- Whether the Alternative Modification would better facilitate the achievement of the Applicable BSC Objectives when compared to the current Code Baseline;
- Whether there are any alternative BSC solutions that the Group has not identified and that should be considered;
- Whether respondents support data being supplied on a password protected compact disk for the Alternative Modification;
- Whether respondents can identify and describe any BSC related benefits that have not been identified by the Modification Group;
- Whether LDSOs would use the D0019 information provided by the Proposed Modification, or the new data flow information provided under the Alternative;

¹ The current version of the Code can be found at <http://www.elexon.co.uk/bscrelateddocs/BSC/default.aspx>.

² A copy of the Applicable BSC Objectives is provided in Appendix 1.

- What data LDSOs currently use to plan and manage your networks and for DUoS billing purposes; and
- Whether there are any substantive issues not considered by the Group which should be brought to the Group's attention for inclusion in its assessment of P222.

You are invited to provide a response to the questions contained in the attached pro-forma.

Please send responses, entitled 'P222 Assessment Procedure Consultation', by **12:00** on **17 April 2008** to the following e-mail address: modification.consultations@elexon.co.uk.

Any queries on the content of the consultation pro-forma should be addressed to Chris Stewart (020 7380 4309), e-mail address chris.stewart@elexon.co.uk.

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Thank you.

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SUMMARY OF IMPACTED PARTIES AND DOCUMENTS

As far as the Modification Group has been able to assess, the following parties/documents would be impacted by P222.

Please note that this table represents a summary of the full impact assessment results in Appendix 3.

Parties	Sections of the BSC	Code Subsidiary Documents
Distribution System Operators <input checked="" type="checkbox"/>	A <input type="checkbox"/>	BSC Procedures <input checked="" type="checkbox"/>
Generators <input type="checkbox"/>	B <input type="checkbox"/>	Codes of Practice <input type="checkbox"/>
Interconnectors <input type="checkbox"/>	C <input type="checkbox"/>	BSC Service Descriptions <input type="checkbox"/>
Licence Exemptable Generators <input type="checkbox"/>	D <input type="checkbox"/>	Party Service Lines <input type="checkbox"/>
Non-Physical Traders <input type="checkbox"/>	E <input type="checkbox"/>	Data Catalogues <input checked="" type="checkbox"/>
Suppliers <input checked="" type="checkbox"/>	F <input type="checkbox"/>	Communication Requirements Documents <input type="checkbox"/>
Transmission Company <input type="checkbox"/>	G <input type="checkbox"/>	Reporting Catalogue <input type="checkbox"/>
Party Agents		
Data Aggregators <input checked="" type="checkbox"/>	H <input type="checkbox"/>	Core Industry Documents
Data Collectors <input checked="" type="checkbox"/>	I <input type="checkbox"/>	Ancillary Services Agreement <input type="checkbox"/>
Meter Administrators <input type="checkbox"/>	J <input type="checkbox"/>	British Grid Systems Agreement <input type="checkbox"/>
Meter Operator Agents <input type="checkbox"/>	K <input type="checkbox"/>	Data Transfer Services Agreement <input type="checkbox"/>
ECVNA <input type="checkbox"/>	L <input type="checkbox"/>	Distribution Code <input type="checkbox"/>
MVRNA <input type="checkbox"/>	M <input type="checkbox"/>	Distribution Connection and Use of System Agreement <input checked="" type="checkbox"/>
BSC Agents		
SAA <input type="checkbox"/>	N <input type="checkbox"/>	Grid Code <input type="checkbox"/>
FAA <input type="checkbox"/>	O <input type="checkbox"/>	Master Registration Agreement <input checked="" type="checkbox"/>
BMRA <input type="checkbox"/>	P <input type="checkbox"/>	Supplemental Agreements <input type="checkbox"/>
ECVAA <input type="checkbox"/>	Q <input type="checkbox"/>	Use of Interconnector Agreement <input type="checkbox"/>
CDCA <input type="checkbox"/>	R <input type="checkbox"/>	BSCCo
TAA <input type="checkbox"/>	S <input checked="" type="checkbox"/>	Internal Working Procedures <input type="checkbox"/>
CRA <input type="checkbox"/>	T <input type="checkbox"/>	BSC Panel/Panel Committees
SVAA <input type="checkbox"/>	U <input type="checkbox"/>	Working Practices <input type="checkbox"/>
Teleswitch Agent <input type="checkbox"/>	V <input type="checkbox"/>	Other
BSC Auditor <input type="checkbox"/>	W <input type="checkbox"/>	Market Index Data Provider <input type="checkbox"/>
Profile Administrator <input type="checkbox"/>	X <input type="checkbox"/>	Market Index Definition Statement <input type="checkbox"/>
Certification Agent <input type="checkbox"/>		System Operator-Transmission Owner Code <input type="checkbox"/>
Other Agents		
Supplier Meter Registration Agent <input type="checkbox"/>		Transmission Licence <input type="checkbox"/>
Unmetered Supplies Operator <input type="checkbox"/>		
Data Transfer Service Provider <input checked="" type="checkbox"/>		

1 EXECUTIVE SUMMARY

The key conclusions of the P222 Modification Group ('the Group') to date are outlined below.

The Group:

- **AGREED** by **MAJORITY** an initial view that the Proposed Modification **would not** better facilitate the achievement of any of the Applicable BSC Objectives as there were no arguments that could be made to support it;
- **AGREED** that an Alternative Modification should be developed in order to provide data that meets the requirements of LDSO's, has been subject to a higher degree of validation, and can be provided at a lower cost;
- **AGREED** by **MAJORITY** an initial view that the Alternative Modification **would not** better facilitate the achievement of any of the Applicable BSC Objectives as there were no arguments that could be made to support it;
- **AGREED UNANIMOUSLY** that the Alternative Modification is better than the Proposed Modification due to the expected lower cost to the industry as a whole;
- **NOTED** that circumstances had, to some degree, changed since the rejection of P043 by the Authority in 2001. This is primarily due to the emergence of independent LDSOs, additional business separation, and increased distributed energy. However, the degree of change does not appear to have created a large degree of increased support from LDSO's for the receipt of the consumption data proposed by P222;
- **NOTED** that the implementation costs for the Proposed Modification were made up of £3,740 BSCCo costs, £25,000 annual cost for extra Data Transfer Network traffic, a range of costs to NHHDCs of £6,000 to £45,000, and costs to LDSOs of £5,000 to £7,000;
- **NOTED** that the implementation costs for the Alternative Modification were made up of £95,000 BSCCo and BSCCo agent costs, a range of costs for NHHDA's of £12,000 to £25,000, and costs to LDSOs of up to £5,000³.
- **AGREED** that the Alternative Modification should require information to be provided on a CD as opposed to across the Data Transfer Network to reduce costs;
- **AGREED** that, despite the higher BSCCo costs, the Alternative Modification would be likely to have lower overall industry costs;
- **OBTAINED** costs for a non-BSC solution in which the DCUSA would be changed. These costs are estimated to include £31,000 for a DCUSA change to run through the change process, costs to LDSOs of up to an additional £2,000 over the P222 costs, and costs to Suppliers of £20,000 to £45,000.
- **NOTED** that there would be inefficiencies associated with a DCUSA change including the need for the DCUSA change process to be undertaken, and the potential that the data provided to LDSOs could be provided in various formats.

A description of the P222 solution is provided in Section 2. Further information regarding the Group's initial discussions of the areas set out in the P222 Terms of Reference is contained in Section 3.

A summary of the Group's initial views regarding the merits of the Proposed Modification and Alternative Modification can be found in Section 4. A copy of the Group's full Terms of Reference can be found in Appendix 2.

³ These costs were based on an Impact Assessment where the data would be provided from NHHDA to LDSOs using the DTN.

2 DESCRIPTION OF MODIFICATION

This section outlines the solution for the Proposed Modification and Alternative Modification as developed by the Modification Group.

For a full description of the original Modification Proposal as submitted by The Electricity Network Company Limited ('the Proposer'), please refer to the P222 Initial Written Assessment (IWA).

2.1 Background

2.1.1 Modification Proposal P043

In 2001 Western Power Distribution raised P043 'Provision of Annualised Advance and Estimated Annual Consumption Data'. P043 sought to modify the BSC such that Non Half Hourly Data Collectors (NHHDCs) would be required to send Metering System Annualised Advance (AA) and Estimated Annual Consumption (EAC) data to the Distributor.

Prior to business separation of Supplier and Distribution businesses the LDSOs had access to this data. It was suggested that LDSOs require an accurate forecast of consumption to enable a more accurate calculation of loading on its network and therefore forecast demand. The Proposer felt that the D0019 'Metering System EAC/AA data' flow was the best source for this data.

Ofgem rejected P043 noting that "at present... the proposal may lead to additional overall costs and that such costs will have to be borne by other parties" and that "it is questionable whether the required change necessary to provide such data is warranted relative to the expense that might be incurred". Ofgem suggested that the provision of such data could be achieved outside the BSC and noted that a change could be proposed to the Distribution Use of System Agreement, to require Suppliers to provide the data.

2.1.2 Issue 31

In November 2007, Issue 31 was raised to again consider the potential provision of EAC/AA data to LDSOs via the D0019 flow. The Proposer advised that, as an Independent LDSO, their Distribution System is connected to that of another host LDSO. It is therefore felt necessary for both the Independent LDSO and the host LDSO to obtain accurate information regarding how much energy is transported across the boundary between their Systems for the purposes of system planning. In addition it was argued that Independent LDSOs need to understand the demands on a site-by-site basis for network planning and operation reasons.

The Issue 31 Group noted that LDSOs receive the D0010 'Meter Readings' data flow, however the Proposer indicated this data may be two years out of date and may need to be cleansed. It was acknowledged that LDSOs can request Suppliers to provide information on an ad-hoc basis, but this is likely to be expensive. It was therefore felt that the D0019 could potentially be the best source of this data.

The Group noted that circumstances had changed since 2001 with the emergence of Independent LDSOs and that, when P043 was raised, only the LDSO who proposed P043 had undergone business separation. Therefore other LDSOs arguably still had access to the required data.

The Issue 31 Group discussed potential alternative solutions that might be considered under the BSC or alternatively under the Distribution Connection and Use of System Agreement (DCUSA). On balance it was felt that the original suggestion was the most appropriate solution to consider under a Modification.

It was observed that the P043 process had not provided costs for the changes proposed nor draft legal text. The Group confirmed that the BSC would need to be revised to ensure the obligation to provide D0019 data to LDSOs was clear.

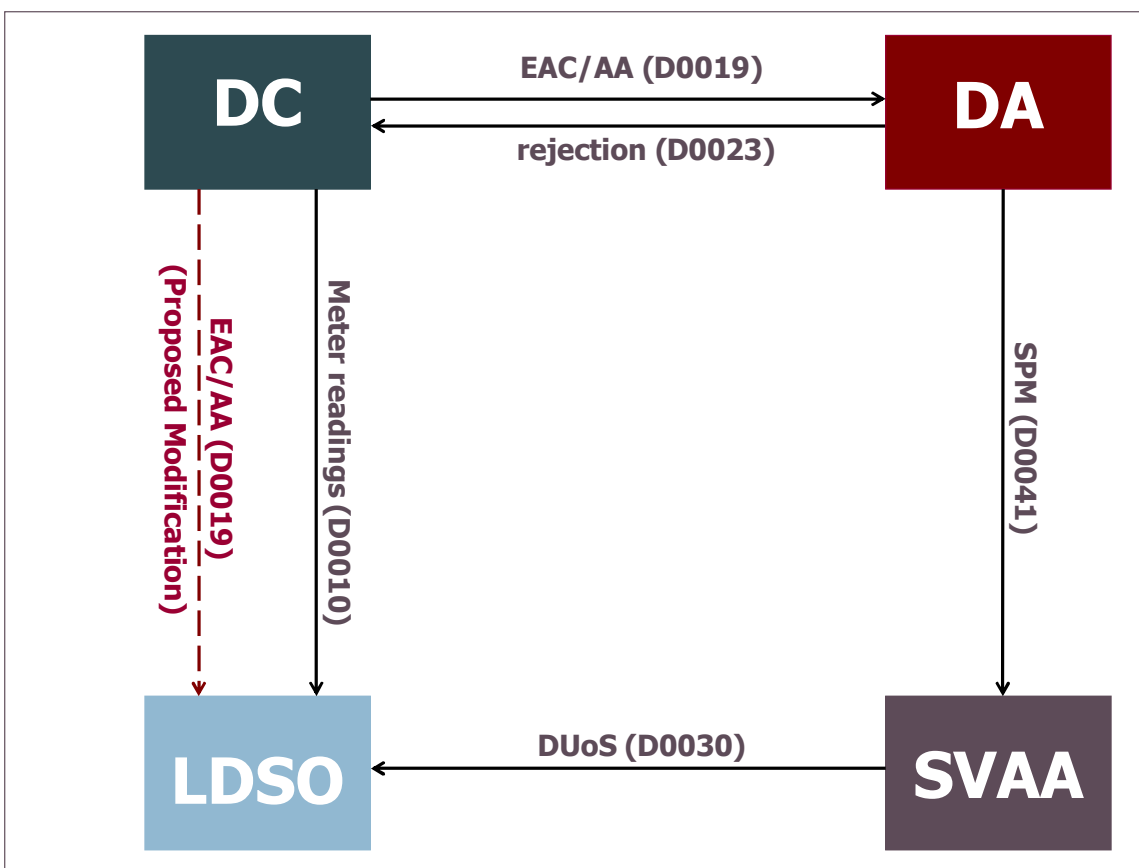
A majority of the Issue 31 Group members supported a Modification Proposal being raised in this area to allow for the costs and benefits to be better understood. The Issue 31 report is available here: [ELEXON - Provision of Annualised Advance and Estimated Annual Consumption Data to LDSO](#)

2.2 Proposed Modification

P222 was raised on 1 February 2008 by The Electricity Network Company Limited ('the Proposer'). P222 seeks to ensure that LDSOs receive EAC or AA data for Metering Systems located within their Distribution Network. It is proposed that this information be provided by the Non Half Hourly Data Collector (NHHDC) sending a D0019 flow to the relevant LDSO. This can be seen as the red dotted line in Figure 1 below.

P222 proposes that the receipt of the D0019 flow would provide the desired site specific consumption data for Non Half Hourly metered sites.

Figure 1. Proposed modification - D0019 flow from NHHDC to LDSO



The NHHDC would identify relevant LDSOs to receive the D0019 flow. This would be achieved by using the LDSO ID contained in the Meter Point Administrator Number (MPAN). LDSOs would only receive D0019 flows where their LDSO ID appears in these first two digits of the core MPAN.

When the NHHDC sends D0019 flows to Suppliers and NHHDA, the NHHDC would be required to also send the D0019 data to the relevant LDSOs⁴. This flow would be sent across the Data Transfer Network (DTN). Via the obligation on the Supplier, it will be mandatory for the NHHDC to provide the information to the LDSO.

This would require an update to the Data Transfer Catalogue (DTC) and DTN. The DTC and DTN would require amendment to ensure it was clear that the LDSO is to be an additional recipient of the D0019 data.

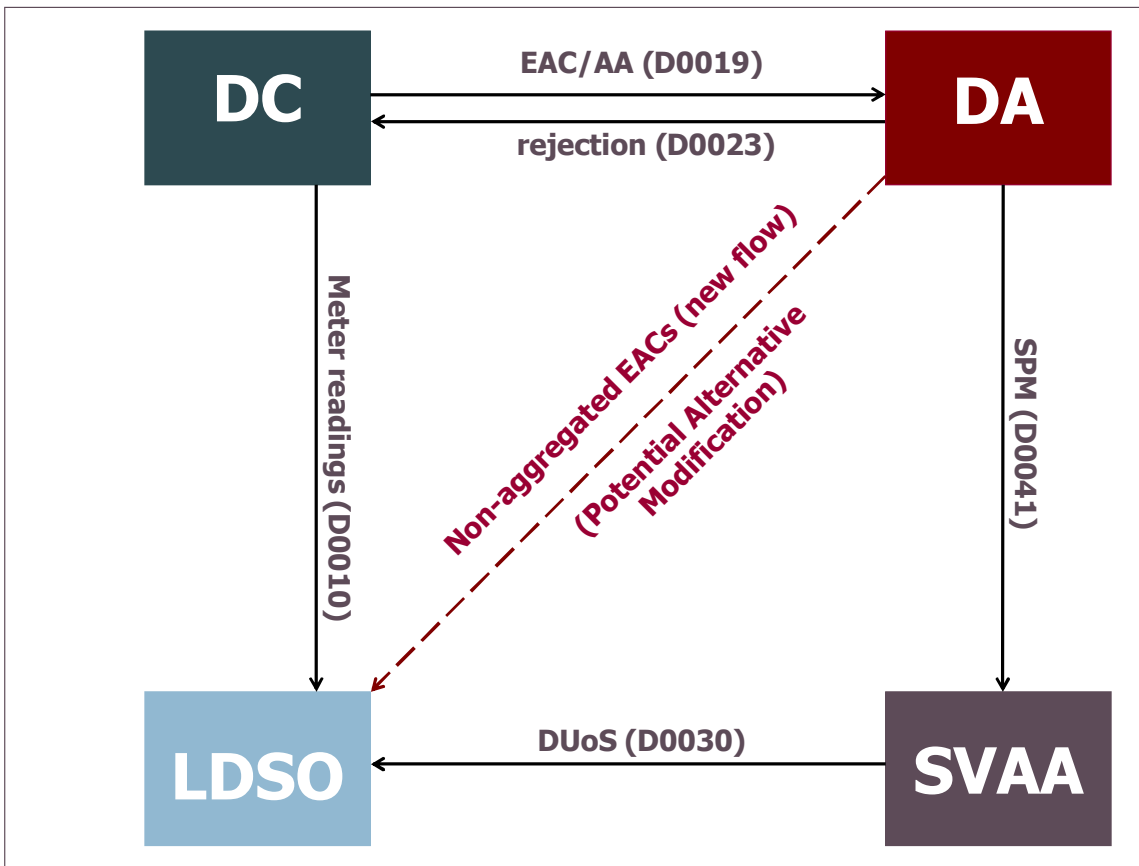
⁴ The relevant DSOs would therefore receive a D0019 flow every time that a D0019 is generated by the NHHDC and provided to the NHHDA in accordance with Section 5 of the BSC.

For the avoidance of doubt, the new flow from the NHHDC to the LDSO would be accepted by the LDSOs on an 'as is' basis, and there would be no formal process for the LDSO to query the accuracy of the data⁵. There would be no additional obligations placed on Suppliers or NHHDCs in respect of this.

2.3 Alternative Modification

As with the Proposed Modification, the Alternative Modification also seeks to ensure that LDSOs receive EAC data for Metering Systems located within their Distribution Network. It is proposed that this information be provided by the Non Half Hourly Data Aggregator (NHHDA) sending a new flow to the relevant LDSO. This can be seen as the red dotted line in Figure 2 below. The data items of the new flow are contained in Appendix 4 and will detail Non-Half Hourly consumption EACs⁶ by GSP Group, Profile Class, and Line Loss Factor. This will provide site specific consumption data to LDSOs.

Figure 2. Alternative Modification – New flow from NHHDA to LDSOs



The NHHDA would identify relevant LDSOs to receive the new flow. This would be based on the LDSO ID contained in the MPAN. LDSOs should only receive this new flow where their LDSO ID appears in these first two digits of the core MPAN.

LDSOs that do not wish to receive this information will be able to opt out of doing so by informing the Supplier/NHHDA. The new flow would be required to be sent quarterly to any LDSOs who have not opted out of receiving it. This would be sent on (or the first business day after) 1 May, 1 August, 1 November, and 1 February of each year⁷. The data to be captured in the new flow would be a snapshot of the EAC data available on that day. This flow would be sent by password protected CD from the NHHDA to the relevant

⁵ Although this would not prevent the LDSO from raising a query if it wished to do so.

⁶ The flow will contain EAC data as opposed to AA data. This is due to the EAC being a better guide to the customer’s consumption. This is explained with an example in Appendix 5.

⁷ Note that the reason for selecting 1 May is that many meter readings will be submitted quarterly based on the financial year that starts on 1 April. Taking a snapshot on 1 May would allow for those meter readings to be captured in the data sent to the DSOs.

LDSO. The Alternative Modification would therefore require a change to the SVA Data Catalogue, where the new flow would need to be added.

For the avoidance of doubt, the new flow from the NHHDA to the LDSO would be accepted by the LDSOs on an 'as is' basis and there would be no formal process for the LDSO to query the data. There would be no additional obligations placed on Suppliers or NHHDA's in this area.

For the Alternative Modification, the Group noted the following additional benefits over and above the Proposed:

- Lower overall industry costs from only requiring a change to one piece of software for the NHHDA (plus some testing costs) as compared to multiple software changes for NHHDCs;
- The information will come from the NHHDA which means it will already have had the validation process between the NHHDC and NHHDA built into it;
- Only sending this information quarterly would mean that there is less data to process, reducing costs on both the side of producing the information and in receiving it. The ability to opt out also will reduce ongoing costs;
- LDSOs who do not wish to receive the data could opt out of doing so reducing processing and administration costs; and
- Providing the information on a CD means there is no cost to transfer data across the DTN.

3 AREAS RAISED BY THE TERMS OF REFERENCE

This section outlines the initial conclusions of the Modification Group regarding the areas set out in the P222 Terms of Reference.

3.1 Confirming the Proposed Solution

The Group discussed three areas which needed to be confirmed for the proposed solution. These are:

- Whether changes are required to the D0019 file structure and sequencing;
- How NHHDCs will ensure only data for the 'Relevant LDSO' is provided; and
- What validation will be required by LDSOs and how will suspect data be managed.

The Group considered how the new data flow would be formulated. Should it be a process that occurs at the same time as the D0019 is created for the Supplier, or should it be a new flow that is based on the D0019? The LDSOs present within the Group highlighted that, for the Proposed Modification, they do not wish for any changes to be made to the D0019 file structure, or its sequencing. The Group agreed that the proposal is to send the D0019 flow without any changes, to the relevant LDSOs at the same time that it is sent by the NHHDCs to the Suppliers. It was noted that LDSOs would need to build systems to be able to accommodate and process this new data flow in order to obtain the benefits.

The Group noted that the LDSO ID in the MPAN could be used to distinguish the LDSO and ensure that only the relevant LDSO receives the file. However, as there was no NHHDC present at the meeting, the Group requested that, as part of their Impact Assessments, NHHDCs may identify a more cost effective means to distinguish LDSOs. From the impact assessment responses NHHDCs did not provide any alternative methods for identifying LDSOs that would be more cost effective.

The Group considered validation requirements for data sent to the LDSOs from the NHHDCs, and noted that this could add potentially complex steps and costs to the process without much corresponding benefit. One member believed that the majority of the value is to obtain the D0019 information in some format and on an

'as is' basis was better than not at all. The validation and associated costs were therefore unnecessary, especially as these costs would contribute to the final assessment of P222, potentially jeopardising it.

Additionally, the Group noted that, because a D0019 goes through validation once received by the NHHDA, the files initially sent to LDSOs (i.e. at the same time as sent to the NHHDA), will potentially contain some data which is inaccurate. The LDSO members of the Group believed that this was acceptable, as the information would still be of sufficient accuracy for use in planning and management of the LDSO distribution system. They also noted that should the file be rejected by the NHHDA, then an updated file would be sent from the NHHDC to the NHHDA. This updated file would have corrected data in it, and, by definition, would also be sent to the relevant LDSOs.

A member questioned whether LDSOs would query the data they receive if they believe there are errors in it. A LDSO member responded that there may be occasions when they wish to query data, but that this should be an informal process that relies on the LDSO relationship with the Supplier. There is no need to have a formal obligation on the Suppliers to respond to any queries. The Group agreed that this would be sufficient.

One member of the Group queried whether the LDSOs require the information as often as the NHHDA or Suppliers who need this for Settlement. The Proposer confirmed that it was his view that the main benefit in the proposal lay in obtaining the D0019 information, and not necessarily in the frequency it is obtained. This is because the benefits lie in network planning. In order to improve network planning, regular updates of the D0019 data is not required. Additionally, with the data transferred across the DTN being charged at a rate per megabyte, the Group believed that cost savings could be made by sending the information less frequently. For these reasons, the Group initially agreed that the Alternative Modification would only require the information to be sent quarterly, and then concluded that the information should be sent via CD rather than across the DTN.

3.2 Benefits and Avoided Costs of a Central Systems Solution

The Group found it difficult to identify and quantify BSC related benefits for P222.

The Group considered whether any BSC or non-BSC benefits, (or avoided costs), could eventuate from:

- Removing some current processing costs undertaken by LDSOs to obtain site specific information;
- Distribution Use of System charges (via improved network planning);
- A positive impact on accommodating distributed generation;
- A positive impact on identification of theft or metering anomaly identification; and
- The avoided costs of setting up separate bilateral arrangements with each Supplier (which is the only way in which LDSOs can currently obtain D0019 equivalent data).

The Group believed that any benefits that could potentially be identified would be applicable to both the Proposed and Alternative Modifications. However, as the Alternative contained data that had been subject to validation, this would mean that the degree of benefits under the Alternative would exceed those of the Proposed.

3.2.1 Remove current processing costs

The Group believed that there could be some benefit to LDSOs from using the data from the Proposed or Alternative Modification to replace existing processing to obtain site specific consumption data. The Group asked LDSOs via the industry impact assessment whether they believed that they would be able to reduce any current processing costs were P222 approved.

The results of the impact assessment indicated that the majority of LDSOs either do not currently process existing BSC data flows (D0010s) to obtain site specific consumption data or, where they do so, they would

intend to continue processing them. Therefore, there would not be any savings until Parties believed that processing the D0010s, or other data to achieve the site specific information, became redundant. One LDSO did indicate that they would stop processing D0010s at a saving of £6,250 in the first year and then £7,250 per annum thereafter.

The Group noted that the responses indicated that the benefits to the LDSOs from reducing existing costs were therefore likely to be very small or negligible. Additionally, any savings made by LDSOs cannot be directly translated into a BSC benefit.

One member suggested that the LDSOs who currently process the D0010 data flow were more likely to use the D0010 to obtain site specific consumption data for Profile Class 5 to 8 sites. The member believed the benefit of P222 would be to obtain consumption data for Profile Class 1 to 4 sites for network planning purposes. It was noted that the D0010 could not be used to determine site specific consumption data for Profile Class 1 – 4 sites due to the volumes of sites involved. Therefore, the data provided by P222 may be of more use to Independent LDSOs, who would have a higher proportion of Profile Classes 1 to 4 sites. In addition, P222 may be of more benefit to Independent LDSOs as they have less headroom in their networks, therefore more accurate planning is required.

The Group also noted that a number of the respondents to the impact assessment stated that they did not use the D0010 flow. In these cases, the Group were not clear what data was being used for planning purposes. Therefore a specific question has been asked as part of this consultation.

3.2.2 Potential Benefits for Distribution Use of System charges

The Group considered whether there would be any benefits from more cost reflective Distribution Use of System (DUoS) charges.

At present NHHDCs process meter reading data to determine EACs and AAs for MPANs. Because LDSOs do not receive the EAC or AA information, they have to essentially replicate NHHDC systems if they wish to produce an EAC. Such duplication would be inefficient and means that a proportion of the costs are incurred twice. Duplicate costs in generating EAC information are picked up by Suppliers through DUoS charges.

More cost reflective charging would result in better targeting of costs and potentially enhance generator competition. The majority of the Group could not identify any direct means from which the information provided could lead to more cost reflective DUoS charges. Additionally, if there were more cost reflective DUoS charges, the link to a BSC benefit via potentially improving generator competition would appear to be a tenuous one.

One member suggested that the data provided under P222 would allow LDSOs who chose to, to obtain site specific information for all Profile Classes. This would enable the LDSOs to determine the quantities that a generator delivers to a GSP Group even if the energy is consumed locally, rather than basing DUoS charges on the net usage across the System. This may assist the development of potentially more cost reflective DUoS charges that gives appropriate incentives on generators, therefore enhancing competition.

The Group noted that the LDSO responses to the impact assessment only indicated that a few LDSOs would be likely to use the information and that there would therefore be less scope for more cost reflective DUoS charges.

3.2.3 Impact on Distributed Generation

The amount of distributed energy has been steadily increasing over time and the growth is expected to continue. One member suggested that the P222 data would allow LDSOs to be able to better understand how to incorporate distributed energy into their networks and therefore improve the planning of their systems. By offering mutually compatible locations, this would facilitate new distributed generation and help to increase competition.

The majority of the Group did not believe that the P222 data would provide these benefits over and above the information already available to the LDSOs.

3.2.4 Impact on theft or metering anomaly identification

One LDSO Group member indicated that the data from P222 (either the Proposed Modification or the Alternative Modification) could be used for theft identification. The member provided the Group with some analysis for theft for the 8 months between May 2007 and December 2007 inclusive. This is included as Attachment 1.

The member indicated that in the 8 months, 163 sites had been identified on their network for which theft had occurred and this was at an average cost of £112 per site. The member suggested that they would expect the data provided under P222 to enable them to detect more theft, although the degree to which this would increase is speculative. If, for example, an increase in detection of 3% occurred then this would equate to an extra £550 of theft detected per year. The member also noted that detection would be likely to occur on larger thefts and therefore the quantum of theft detected may in fact be larger. This benefit of detecting theft would be that more accurate data is fed into Settlements.

The Group did not endorse the theft analysis. The Group did not believe that all LDSOs would necessarily use the P222 data for theft detection. One member did note that it may be able to be used to identify and investigate general metering anomalies more easily. However, most members did not feel that the data provided under P222 would allow for such identification over and above what existing information available to LDSOs would allow for.

3.2.5 The avoided costs of setting up bilateral arrangements

Currently, the only way in which LDSOs can currently obtain D0019 equivalent data is by approaching Suppliers for it, and entering bilateral agreements to regularly provide this information. The Group therefore sought the costs and desire for such a solution from the impact assessment.

The impact assessment responses⁸ indicated that the costs of setting up bilateral arrangements were likely to be either equivalent or in excess of those under a BSC or DCUSA change. This is primarily due to the extra administration work involved, and the potential that information would be provided in different formats (and thus increasing processing costs). This could be due to different Suppliers providing the information to an LDSO in different formats, or different Suppliers accommodating different LDSO format requests. The Group did not believe that this would be an efficient means of obtaining the data.

Supplier respondents also indicated that they would be likely to enter a bilateral arrangement on a case by case basis. However, one respondent indicated that Suppliers should not have to pay for this information given that LDSOs should be able to process the required information from D0010s.

3.3 Benefits of D0019 compared with existing data available to LDSOs

The D0019 would provide LDSOs with site specific consumption data. It is possible for LDSOs to obtain site specific consumption data by relying on existing BSC data flows sent to the LDSO.

Under existing BSC requirements, LDSOs should currently receive data flows containing meter technical details from NHHMOAs (D0149/D0150) and meter readings from NHHDCs (D0010).

It was queried why the D0019 would be better than the D0010 given that the D0010 contains actual meter readings which, by definition, should make it the more accurate.

⁸ See responses to questions 16, 23, and 24 in Attachment 2.

One LDSO member indicated that the D0010s need to be processed in order to be of any value. This is due to the amount of missing data⁹ and the degree to which it can be out of date (containing data up to 2 years old). By processing information in these flows, an LDSO can calculate site specific consumption data, however; it is the processing of this information that has proven costly. The member noted that processing the D0010s means the LDSO is ultimately replicating an activity that is undertaken by the NHHDCs.

The impact assessment responses indicated that at least 5 LDSOs currently use the D0010s to calculate site specific data. The majority of LDSO respondents indicated they were happy with the accuracy of the information that they currently receive for the purposes of network planning. One LDSO has estimated that the cost of processing the D0010 data is approximately £10,000 per year. However, the LDSO estimates that due to errors such as missing and inconsistent data flows, such calculations are only 90% accurate. It is estimated that introducing processes to query and resolve such errors could cost the LDSO around £100,000 per year. This would include staff required to query and resolve the issues. Additionally, should such processes be introduced, the LDSO estimates that Suppliers and/or their Agents, would receive around 5,000 queries per year.

One member also noted that NHHDCs are responsible for converting information from D0010s into consumption data for Settlement. LDSOs each individually processing the D0010s would effectively be replicating what the NHHDCs do. This would be inefficient, especially when the NHHDCs already have the site specific information available.

One member suggested that, if D0010s are missing, then this is a compliance issue and by rectifying the non-compliances, the issue could be resolved and the D0010s used.

3.4 MRA and Data Transfer Network/Catalogue

The Proposed Modification has an impact on the MRA via the impact on the DTN/DTC. The DTC change can only be implemented under the MRA change process. The MRA changes would need to be progressed prior to implementation of P222.

The impact on the MRA is that the DTC would need to be revised in line with P222 requirements of the Proposed Modification. The costs of this would be:

- The costs to Parties to implement the changes in their systems (which are included in their impact responses – Attachment 2);
- The costs for the DTN to be revised and amended (see Electralink costs for the Proposed Modification in section 3.4.1), which are paid by the DTN Users; and
- The costs of administering the MRA change process, which are already covered under the MRASCo budget process.

Changes to the DTN and DTC would be required to indicate that the LDSO would be an additional recipient of the D0019 flow, and to reconfigure the network gateways to allow the D0019 to be passed from NHHDCs to LDSOs.

It was estimated that this would require an additional 13.9 gigabytes of traffic across the DTN. Based on 2007 data volumes, this would result in an increase in Data Transfer Systems Traffic Usage Charges of £25,020 per annum (at today's DTS prices). No performance issues have been identified. The Impact Assessment from Electralink can be found in Attachment 3.

For the Alternative Modification, the information would be supplied to LDSOs by the NHHDCs on a CD. Therefore, there would be no DTN costs.

⁹ Specifically, for new sites, where corrections have been made, or the degree to which meter reads cannot be loaded into LDSO systems due to an inconsistency with the D0149 or D0150 information.

3.5 Changes Since P043

The Group noted that the main change since P043 was rejected in 2001 has been the emergence of Independent LDSOs. Additionally, when P043 was raised, only the LDSO who proposed P043 had undergone business separation. Therefore, there was less support for and benefits identifiable under P043 as other LDSOs still had access to the required data.

However, the Group noted that the degree of change has not resulted in a comprehensive desire across the industry for LDSO's to receive EAC and AA data, illustrated by the collective lack of support from LDSOs

One member noted that, given less LDSOs now have access to this data (as compared to 2001), greater granularity of consumption data is required for dynamic management of the Distribution System. Additionally, there has been an increase in the amount of distributed energy. New distributed energy could potentially benefit from more cost reflective DUoS charges if LDSOs were able to better plan their network and offer better rates at mutually beneficial locations.

3.6 Non-BSC solution – DCUSA change

The Group investigated whether a non-BSC solution could provide equivalent information to the LDSOs as that which would be provided under the Proposed or Alternative Modifications¹⁰.

Such a non-BSC solution would seek to provide LDSOs with D0019-equivalent data by modifying the provisions in the DCUSA to put the required obligations onto the Suppliers.

This solution would seek to update the DCUSA to provide provisions for the LDSO to obtain the required site specific consumption data from Suppliers. The Modification Group noted that the DCUSA could be changed to facilitate this solution, but agreed that the detailed requirements of such a change would be subject to the DCUSA change process.

As cost information for DCUSA changes is considered commercially sensitive, the Group could not obtain average costs for progressing a DCUSA change. The Group agreed to use the average cost of a BSC modification to act as an estimate for this. ELEXON has estimated this cost at c.£30,000¹¹

As part of the industry impact assessment (see responses in Attachment 2), the Group obtained costs for the solution as follows:

- **LDSOs:** Substantial administration effort was expected to collate the information from multiple Suppliers. One Party expressed that these costs would be £2,000 over and above the Proposed Modification or Alternative Modification. The time required to implement was generally in the range of 6 to 9 months with one LDSO suggesting 18 months; and
- **Suppliers:** Costs provided range from £20,000 to £45,000 although some Suppliers indicated that it would be difficult to provide accurate estimates;

¹⁰ It should be noted that as part of a BSC Modification, it is not usual practice to seek to establish costs relating to non-BSC solutions (Solutions 3, 4a, and 4b). However, due the particular circumstances relating to this Proposed Modification, the BSC Panel has instructed the Group, where possible, to try and establish these costs. The BSC Panel is of the opinion that when the Modification comes before them for a recommendation, this information will assist them to satisfy themselves that a BSC solution is one that is the least cost to the industry.

The particular circumstances driving this non-standard approach largely relate to the rejection of Modification P043 'Provision of Annualised Advance (AA) and Estimated Annual Consumption (EAC) Data', which is identical to the Proposed Modification, and the comments made by Ofgem as part of its P043 decision. Ofgem, within its Decision letter, noted; that there were alternative routes outside of the BSC to resolve the issue and stated that in their view the proposal "best resides outside the BSC"; that the proposal may lead to additional overall costs and it was questionable whether the changes required under the proposal warranted the expense that would be incurred under changes to the BSC. In short, there was an indication that there may be other non-BSC solutions that could be at lower cost to the industry.

It is important to clarify that the remit of the Modification Group remains an assessment of the BSC solutions against the Applicable BSC Objectives, in particular, whether the BSC solutions better facilitate the BSC Objectives, however any cost information obtained will help inform the Panel and the Authority.

¹¹ This is the average for progressing BSC Modifications raised since 1 November 2004 (Modifications P180 to P220). It does not include implementation costs for approved modifications.

One member noted that the core processing costs for a DCUSA change are likely to be the same for Parties as the Proposed Modification. This is because it is the same systems that would be required to be changed. So the DCUSA change would therefore have the additional cost over a BSC solution of having to run through the DCUSA change process. Additional administration costs would also be incurred if the DCUSA change allows for Suppliers to supply the data, or LDSOs to request the data, in a non-consistent format.

3.7 Cost Recovery

The Group discussed the possibility that the Supplier and Central Systems costs attributable to the Proposed or Alternative Modification could be targeted at the LDSOs, as it will be them that are likely to obtain the benefits of the Modification.

The Group noted that under Modification P216 'Audit of LLF Production', benefits were identified for Suppliers with the cost burden being on LDSOs. Additionally, it was noted that the Proposed and Alternative Modifications need to be assessed against the Applicable BSC Objectives, and if net benefits to Parties are identified as part of this process, then arguably, costs are appropriately targeted.

The Group does not propose any variation for cost recovery from the normal recovery of central costs.

3.8 Implementation Approach and Costs

The Modification Group has identified indicative costs and implementation lead times for P222 Proposed and P222 Alternative.

3.8.1 Implementation Approach

There was a range of responses from Party and Party Agent's for the time required to implement the Proposed Modification or Alternative Modification. These are, in almost all instances, in excess of Central Systems and BSSCo implementation requirements. The most common responses fell in the range of 6-9 months for both the Proposed and Alternative Modification.

Therefore, it is proposed that the Implementation Date for both the Proposed Modification and Alternative Modification should be:

- 25 June 2009 if an Authority decision is received on or before 19 September 2008; or
- 5 November 2009 if an Authority decision is received after 19 September 2008 but on or before 20 February 2009.

3.8.2 Proposed Modification Costs – ELEXON and Central Service Providers

PROPOSED MODIFICATION IMPLEMENTATION COSTS¹²

		Stand Alone Cost	Tolerance
ELEXON Implementation Resource Cost		17 man days £3,740	+/- 10%
Total Implementation Cost		£3,740	+/- 10%

¹² An explanation of the cost terms used in this section can be found on the BSC Website at the following link:
http://www.elexon.co.uk/documents/Change_and_Implementation/Modifications_Process_-_Related_Documents/Clarification_of_Costs_in_Modification_Procedure_Reports.pdf

The results of the industry impact assessment can be found in Appendix 3.

3.8.3 Alternative Modification Costs - ELEXON and Central Service Providers

ALTERNATIVE MODIFICATION IMPLEMENTATION COSTS¹³

		Stand Alone Cost	Tolerance
Service Provider¹⁴ Cost	Change Specific Cost	£67,000 (12 weeks)	+/- 0%
	Release Cost	£0	+/- 0%
	Incremental Release Cost	£0	+/- 0%
	Total Service Provider Cost	£67,000	+/- 0%
Implementation Cost	External Audit	£0	+/- 0%
	Design Clarifications	£3,350	+/- 0%
	Additional Resource Costs	£0	+/- 0%
	Additional Testing and Audit Support Costs	£0	+/- 0%
Total Demand Led Implementation Cost		£70,350	+/- xx%

ELEXON Implementation Resource Cost		111 man days £24,420	+/- 10%
Total Implementation Cost		£94,770	+/- 5%

The detailed results of the industry impact assessment can be found in Appendix 3.

Other potential BSC changes

The Group was aware that there is currently a draft Change Proposal that is being considered by the industry that, as part of its solution, would require similar changes to the NHHDA software as the Alternative

¹³ An explanation of the cost terms used in this section can be found on the BSC Website at the following link:
http://www.elexon.co.uk/documents/Change_and_Implementation/Modifications_Process_-_Related_Documents/Clarification_of_Costs_in_Modification_Procedure_Reports.pdf

¹⁴ BSC Agent and non-BSC Agent Service Provider and software costs.

Modification. This is DCP0029 'Recommendations of the Unmetered Supplies Expert Group'. The Group noted that there could potentially be reduced overall costs to implement these solutions concurrently should both the Alternative Modification and DCP0029 eventually approved. Whilst both these changes are being progressed ELEXON will, if possible, attempt to keep the requirements of the two changes as similar as possible in order to avoid any additional costs

4 ASSESSMENT OF MODIFICATION AGAINST APPLICABLE BSC OBJECTIVES

This section outlines the initial views of the Modification Group regarding the merits of P222 against the Applicable BSC Objectives.

4.1 Proposed Modification

The initial **MAJORITY** view of the Modification Group was that the Proposed Modification **WOULD NOT** better facilitate the achievement of Applicable BSC Objectives when compared to the current Code baseline. This is because the majority did not believe that any arguments in favour of the Proposed Modification could be made. Correspondingly, the majority did not provide any reasons in which the Applicable BSC Objectives would be detrimentally impacted. However, the view of the majority was that the cost of the Proposed Modification could not be justified when there were no BSC benefits that could be identified.

There was an initial **MINORITY** view that the Proposed Modification would better facilitate the achievement of Applicable BSC Objective (c). This is for the following reasons:

- P222 would provide for increased ability for new distributed generation to enter the market, and for small scale generation to compete with larger scale generation. The D0019 information would allow LDSOs to determine the quantities that a generator delivers locally to be netted off against local demand (e.g. in as a regional power zone). This would allow for more cost reflective Distribution Use of System charges which would provide the correct incentives on generators, therefore enhancing competition; and
- Improved granularity of information that LDSOs have access to will improve the data that ultimately enters Settlement as LDSOs may be able to highlight issues causing erroneous data. Improving the accuracy of data in Settlement benefits all Parties by creating fairer arrangements which, in turn, promote competition.

4.2 Alternative Modification

The initial **UNANIMOUS** view of the Modification Group was that the Alternative Modification **WOULD** be preferable than **the Proposed Modification**, for the primary reason that the costs to the industry as a whole would be lower (despite central costs being higher).

The **MAJORITY** of the Group could not initially justify that the Alternative better facilitated the Applicable BSC Objectives than the Proposed Modification as they still could not form any arguments for which the Alternative Modification better facilitated the Applicable BSC objectives at all. The reason for the majority's preference for the Alternative was related to the expectation of lower overall industry costs.

A **MINORITY** of the Group believed that the Alternative Modification would better facilitate the Applicable BSC Objectives (c) and (d) when compared to the Proposed Modification. This is due to the lower overall industry costs of the Alternative Modification improving the efficiency in the implementation and administration of the BSC. Additionally, the data provided under the Alternative is more relevant to the LDSO requirements and therefore the benefits under competition identified by the minority for the Proposed Modification would be amplified.

The initial **MAJORITY** view of the Group was that the Alternative **WOULD NOT** be better than the current baseline for the same reasons as for the Proposed Modification.

The initial **MINORITY** view of the Group was that the Alternative Modification **WOULD** better facilitate the achievement of Applicable BSC Objectives (c) when compared to the current Code baseline, for the same reasons as for the Proposed Modification.

5 TERMS USED IN THIS DOCUMENT

Other acronyms and defined terms take the meanings defined in Section X of the Code.

Acronym/Term	Definition
AA	Annualised Advance
D0010	Meter Readings – this flow contains raw Meter reading data and is used in the creation of a D0019.
D0019	Metering System EAC/AA Data – information in this flow is derived using data from current and previous Meter reads (D0010) and the profiles over the read period to create an annual consumption for a metering point. The D0019 is then passed into the Non Half Hourly Data Aggregator. (See Appendix 1).
D0030	Non Half Hourly DUoS Report – this flow contains the total profiled consumption for all Metering Systems (but not per Metering Systems) for a particular LDSO.
D0041	Supplier Purchase Matrix Data – this flow contains details of NHH Consumption per Supplier aggregated per GSP Group by profile class, line loss factor class and measurement requirement. (See Appendix 2).
D0149	Notification of Mapping Details. This flow notifies mapping of physical registers to time pattern regimes.
D0150	Non Half-hourly Meter Technical Details
DCUSA	Distribution Connection and Use of System Agreement
LDSO	Licensed Distribution System Operator
DTC	Data Transfer Catalogue
DTN	Data Transfer Network
EAC	Estimated Annual Consumption
IDNO	Independent Distribution Network Operator
MPAN	Meter Point Administration Number – An MPAN is a unique number for each meter.
MRASCO	Master Registration Agreement Service Company
NHH	Non Half Hourly
NHHDA	Non Half-Hourly Data Aggregator

6 DOCUMENT CONTROL

6.1 Authorities

Version	Date	Author	Reviewer	Reason for Review
0.1	26/03/08	Chris Stewart	Sarah Jones	For technical review
0.2	27/03/08	Chris Stewart		For Modification Group review
0.2	1/04/08	Chris Stewart		For Modification Group review
1.0	2/04/08	P222 Modification Group		For industry consultation

6.2 References

Ref.	Document Title	Owner	Issue Date	Version
1	Data Transfer Catalogue – MRASCO website Data Flows	MRASCO		8.8
2	DCUSA – 5 October 2006 http://www.ofgem.gov.uk/Licensing/ElecCodes/DCUSA/PreDesig/Documents1/15650-DCUSA.pdf	Ofgem		1.0
3	P043 'Provision of Annualised Advance and Estimated Annual Consumption Data' – Modification documents including decision letter ELEXON - Modification Proposal P043	ELEXON / Ofgem		

APPENDIX 1: APPLICABLE BSC OBJECTIVES

For reference the Applicable BSC Objectives, as contained in the Transmission Licence, are:

- (a) The efficient discharge by the licensee [i.e. the Transmission Company] of the obligations imposed upon it by this licence [i.e. the Transmission Licence];
- (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.

APPENDIX 2: PROCESS FOLLOWED

Copies of all documents referred to in the table below can be found on the BSC Website at: [ELEXON - Modification Proposal P222](#)

Date	Event
01/02/08	Modification Proposal raised by The Electricity Network Company Limited
14/02/08	IWA presented to the Panel
21/02/08	First Assessment Procedure Modification Group meeting held
10/03/08	Second Assessment Procedure Modification Group meeting held
12/03/08	Requirements Specification issued for BSC Agent impact assessment
12/03/08	Request for Party/Party Agent impact assessments request issued
12/03/08	Request for Transmission Company analysis issued
12/03/08	Request for BSCCo impact assessment issued
27/03/08	BSC Agent impact assessment response returned
27/03/08	Party/Party Agent impact assessment responses returned
26/03/08	Transmission Company analysis returned
27/03/08	BSCCo impact assessment returned
31/03/08	Third Assessment Procedure Modification Group meeting held
03/04/08	Consultation Document published
17/04/08	Consultation responses received
21/04/08	Fourth Assessment Procedure Modification Group meeting

ESTIMATED COSTS OF PROGRESSING MODIFICATION PROPOSAL¹⁵

Meeting Cost	£1,500
Legal/ Expert Cost	£5,000
Impact Assessment Cost	£5,000
ELEXON Resource	63 man days £17,000

The Impact Assessment Cost has increased from £0 to £5,000 as the Alternative Modification requires an impact assessment from the NHHDA software provider.

MODIFICATION GROUP MEMBERSHIP

Member	Organisation	21/02/08	04/03/08	31/03/08
David Jones	ELEXON (Chair)	✓	✓	✓
Chris Stewart	ELEXON (Lead Analyst)	✓	✓	✓
Mike Harding	The Electricity Network Company Ltd (Proposer's Representative)	✓	✓	✓
Graham Smith	Western Power Distribution	✓	✓	
Glenn Sheern	E.ON	✓	✓	✓
Andrew Manning	Npower	✓	✓	✓
James Evans	British Energy	✓	✓	
Jane Griffith	Central Networks	✓	✓	
James Nixon	SAIC	✓	✓	✓

Attendee	Organisation	21/02/08	04/03/08	31/03/08
Sarah Jones	ELEXON (Technical Support)			✓
Kevin Spencer	ELEXON (Technical Support)	✓	✓	✓
Simon Polley	Ofgem	✓	✓	✓
John Lucas	ELEXON (Technical Support)	✓	✓	
Claire Hemmens	Scottish and Southern Energy	✓		
Howard Gregory	Npower	✓	✓	
Jacqueline McGuire	SAIC	✓		
Alistair Barnsley	E.on Energy Services	✓ (part)		

¹⁵ Clarification of the meanings of the cost terms in this appendix can be found on the BSC Website at the following link:
http://www.elexon.co.uk/documents/Change_and_Implementation/Modifications_Process_-_Related_Documents/Clarification_of_Costs_in_Modification_Procedure_Reports.pdf.

Sam Pearson	E.on Energy Services	✓ (part)		
Sarah Mann	ELEXON (Legal)		✓	✓
Jill Ashby	Gemserv		✓	
Mo Sukumaran	Scottish and Southern Energy		✓	✓

MODIFICATION GROUP TERMS OF REFERENCE

Modification Proposal P222 will be considered by the P222 Modification Group (which will be formed from the Volume Allocation Standing Modification Group supplemented by members with expertise in Distribution), in accordance with the VASMG's Terms of Reference and this Appendix.

P222 – Provision of EAC and AA data to Distributors

1. ASSESSMENT PROCEDURE

- 1.1 The Modification Group will carry out an Assessment Procedure in respect of Modification Proposal P222 in accordance with Section F2.6 of the Code.
- 1.2 The Modification Group will produce an Assessment Report for consideration at the BSC Panel Meeting on 8 May 2008.
- 1.3 The Modification Group shall build upon the work of the Issue 31 Group and consider and/or include in the Assessment Report as appropriate:
 - Confirm the Proposed solution considering:
 - How NHHDCs will ensure only data for the 'Relevant DSO' is provided;
 - What validation will be required by DSOs and how will suspect data be managed; and
 - Confirm whether changes are required to the D0019 file structure and sequencing;
 - The perceived benefits of P222 to types of participant and whether these better meet the Applicable BSC Objectives. Where possible, this should include:
 - Quantification of the benefits suggested to distributed energy and DUoS charges; and
 - The avoided costs attributable to having a Central solution (e.g. Supplier savings from reduction in ad hoc information requests from Distributors);
 - The benefits associated with Distributors obtaining data from the D0019 as compared to current data flows available to DSOs;
 - The system impacts and estimated costs of changes to DSO and NHHDC systems (and costs to other Parties);
 - The associated changes to the MRA and Data Transfer Network/Catalogue;
 - Establish what has changed since P043 and whether the P043 Authority comments still have merit;
 - Identify any alternative solutions (which may include non-BSC solutions), and provide the estimated costs of these solutions; and
 - Establish whether there is any ability to recover the cost of the change from Distributors.

APPENDIX 3: RESULTS OF IMPACT ASSESSMENT

a) Impact on BSC Systems and Processes

The Proposed Modification has no impact on the BSC systems or processes.

The Alternative Modification requires NHHDA to send the new flow to LDSOs on a quarterly basis. The NHHDA software will therefore need to be updated. This would be at a cost of £67,000. The NHHDA database contains all the data that is required to be sent to the LDSO in the new flow. However the database structure is designed for optimal performance of the NHHDA Aggregation Run; it is not designed for easy data reporting. Thus production of the new flow will be a major new NHHDA process.

The first stage of a new report process would extract the EAC data for all the Metering Systems in the NHHDA database into temporary tables. The second stage of the process would read the temporary tables to produce a report for each LDSO.

The EACs reported on are those that will be used in Settlement. The impact assessment from the NHHDA software provider is included in Attachment 4.

b) Impact on BSC Agent Contractual Arrangements

No impact.

c) Impact on BSC Parties and Party Agents

The Modification Group conducted an industry impact assessment for the Proposed Modification and Alternative Modification. The full set of responses can be found in Attachment 2.

The responses indicate costs to LDSOs, Suppliers, NHHDCs and NHHDAs.

For the Proposed Modification, NHHDC would be required to send a D0019 flow to all relevant LDSOs at the same time it sends this flow to the Suppliers and NHHDAs.

For the Proposed Modification, the following impacts were noted by respondents:

- **LDSOs:** Costs to implement the proposed solution ranged from £5,000 to £7,000 for those that intended to use the information. One respondent suggested a cost of £50,000 were they to process the information but also indicated they would not use the data so would not actually incur this cost.

Implementation timescales generally ranged between 6 to 9 months with one respondent stating 12 months and another stating 18 months.

- **Suppliers:** Half of the Supplier respondents indicated there would be no costs over and above those that would be attributable to the NHHDC. The remaining Supplier respondents indicated that there would be some costs due to monitoring NHHDCs and from LDSO query management.
- **NHHDCs:** Costs provided by NHHDC respondents were in the range of £6,000 to £45,000. It was noted that the change may not be a particularly large one, however rigorous testing would be required to ensure existing functionality is not impacted.

Implementation timescales suggested ranged from 3 months to 18 months with 6 months being the most common response.

For the Alternative Modification, the NHHDAs would be required to send a new flow to relevant LDSOs on a quarterly basis on CD.

For the Alternative Modification, the following impacts were noted by respondents based on information being sent across the DTN. Some respondents noted that savings could be made by sending the information on a CD¹⁶:

- **LDSOs:** One Party provided costs similar to implement the proposed solution of £5,000. One respondent indicated increased costs to be able to receive and accommodate the information across the DTN. It should be noted that these costs would not be incurred under the CD delivery method.

Implementation timescales ranged from 3 to 18 months with the most common period given as 6 months. One respondent noted this was not applicable as they would discard the flow.

- **Suppliers:** Most of the Supplier respondents indicated there would be no costs over and above those that would be attributable to the NHHDA. The remaining Supplier respondents indicated that there would be some costs involved monitoring NHHDA and from LDSO query management.
- **NHHDA:** Some NHHDA's indicated that the bulk of the cost would be those to change the NHHDA software and they did not indicate any additional costs. However, three respondents provided further costs. Two respondents provided costs of £12,000 and £25,000 respectively. These costs were based on the requirement to test and implement a new version of the NHHDA software. A further respondent noted that there would need to be Gateway changes at a cost of £5,000. However, the Group noted that these would not be incurred if the information is provided on CD.

Implementation timescales suggested ranged from 3 months to 18 months. One respondent noted that their implementation timescale of 6 months would be once the NHHDA software had been delivered by ELEXON's service provider.

d) Impact on Transmission Company

No impact.

e) Impact on BSCCo

Area of Business	Impact of Proposed/Alternative Modification
Change Delivery	<p>Change Delivery would be responsible for the implementation of the changes to the BSC and Code Subsidiary Documents as part of a release, co-ordinated with MRASCo. ELEXON would have to manage the required updates to BSCP504 'Non Half Hourly Data Collection for SVA Metering Systems registered in SMRS', BSCP505 'Non Half Hourly Data Aggregation for SVA Metering Systems Registered in SMRS' and BSCP515 'Licensed Distribution'.</p> <p>For the Proposed Modification there will only need to be document changes but the Alternative Modification requires additional ELEXON resource to manage the testing and deployment of the NHHDA software.</p>
Service Delivery	<p>It is anticipated that provision of D0019 or any new flows of data to LDSOs may result in assistance being required for resolution of queries.</p>

¹⁶ Note that based on these responses, the Group agreed the current Alternative solution of supplying the new flow information on a CD.

f) Impact on Code

Code Section	Impact of Proposed/Alternative Modification
Section S	<p>Section S, paragraph 2.3.2 (i), and Annex S-2, paragraph 4.3 1 (i), of the BSC require the NHHDC to provide validated Metered Data and Metering System reports to the relevant Supplier and the Relevant LDSO.</p> <p>Section S, paragraph 2.3.2 of requires NHHDC to provide Estimated Annual Consumption data and Annualised Advance data to relevant Non Half Hourly Data Aggregator. Section S, Annex S-2, paragraph 4.3.1 (h) requires each Supplier to ensure that each of its NHHDC shall (amongst other things) provide Annualised Advance data and Estimated Annual Consumption data to the relevant NHHDA</p> <p>For the Proposed Modification, the BSC needs to make clear that there is an obligation on the NHHDCs to provide Estimated Annual Consumption data and Annualised Advance data to the relevant LDSOs. It may also be necessary for the BSC to state that NHHDCs have an obligation to identify the relevant LDSOs and process the data to ensure that each LDSOs only receives data relating to that LDSO.</p> <p>For the Alternative Modification, the BSC needs to make clear that there is an obligation on the NHHDCs to provide a new flow of data to the LDSO. The 'new flow of data' will need to be accurately and appropriately described.</p>

g) Impact on Code Subsidiary Documents

Document	Impact of Proposed/Alternative Modification
BSCP504 'Non-Half Hourly Data Collection for SVA Metering Systems Registered in SMRS'	For the Proposed Modification, this BSCP would be updated to note the additional interface between NHHDCs and LDSOs for sending the D0019 flow.
BSCP505 'Non-Half Hourly Data Aggregation for SVA Metering Systems Registered in SMRS'	For the Alternative Modification, this BSCP would be updated to note the additional interface between NHHDCs and LDSOs for sending the new data flow.
PSL120 'Non-Half Hourly Data Collection'	An amendment could be made to PSL120. HOWEVER, this PSL is scheduled for removal at the June 2008 Release and has been out for impact assessment as CP1213. Therefore it is unlikely that change would be necessary.
SVA Data Catalogue Volume 1	<p>For the Proposed Modification, this data catalogue would be updated to add the LDSO to the list of recipients to the D0019.</p> <p>For the Alternative Modification, this data catalogue would be updated to add the new data flow to be sent to LDSOs.</p>

h) Impact on Core Industry Documents/System Operator-Transmission Owner Code

Document	Impact of Proposed/Alternative Modification
Master Registration Agreement products	<p>See Section 3.4.</p> <p>For the Proposed Modification, changes to the DTN and DTC would</p>

Document	Impact of Proposed/Alternative Modification
	<p>be required to indicate that the LDSO would be an additional recipient of the D0019 flow and to reconfigure the network gateways to allow the D0019 to be passed from NHHDCs to LDSOs. These changes would be progressed only if the Proposed Modification were to be approved, and the implementation timetable would need to allow an appropriate period for change.</p> <p>For the Alternative Modification, no changes to the DTN or DTC are envisaged as the information would be send from the NHHDA to the LDSO via CD, not the DTN.</p> <p>The Impact Assessment from Electralink can be found in Attachment 3.</p>

i) Impact on Other Configurable Items

No impact.

j) Impact on BSCCo Memorandum and Articles of Association

No impact.

k) Impact on Governance and Regulatory Framework

No impact.

Appendix 4: Data items for new data flow: Alternative Modification

Flow Name:	<i>TBC</i>		
Flow Description:	<i>TBC</i>		
Flow Ownership:	BSC		
From	To	Version	
NHHDA	Relevant LDSO	1.0	

Data Items:

Reference	Item Name
J1099	Energisation Status ID
J0081	Estimated Annual Consumption
J0330	File Sequence Number*
J0066	GSP Group ID
J1104	GSP Group
J0147	Line Loss Factor Class ID
J0109	Instruction Number*
J0083	Metering System ID
J0071	Profile Class ID
J0328	Significant Date
J0076	Standard Settlement Configuration ID
J0078	Time Pattern Regime
J1109	Type Code*

* It is to be confirmed as part of the impact assessment whether these Data Items are necessary within the body of the Flow.

Appendix 5: AAs vs EACs

This appendix describes the usage and value of the smoothing parameter. The purpose of which is to deal with a short read AA in order to get a realistic ongoing EAC. To demonstrate why the use of the EAC is a better guide to the customer’s consumption an extreme example can be used:

The formula for the calculation of the EACs are as follows:

- (a) $AAAF_{KR} = \max(0, \min((FYC_{KR} * SPAR), 1.0))$; and
- (b) $EAC_{KR} = AAAF_{KR} * AAKR + (1 - AAAF_{KR}) * PEAC_{KR}$

Where:

- AAAF = Annualised Advance Adjustment Factor.
- FYC = Fraction of Yearly Consumption.
- SPAR = Smoothing Parameter and is set to 2.
- PEAC = Previous EAC.

Scenario: A non Half Hourly customer that uses 100kWh (meter advance MA) units one month and 0 the next with an initial EAC of 600 units using a flat profile fraction of 1/12 per month:

	MA	AA	FYC 1/12	AAAF FYC*'SPAR (2)	Initial EAC 600 ongoing EAC
Apr	0	0	0.083333	0.166666667	500
May	100	1200	0.083333	0.166666667	616.6667
Jun	0	0	0.083333	0.166666667	513.8889
Jul	100	1200	0.083333	0.166666667	628.2407
Aug	0	0	0.083333	0.166666667	523.534
Sep	100	1200	0.083333	0.166666667	636.2783
Oct	0	0	0.083333	0.166666667	530.2319
Nov	100	1200	0.083333	0.166666667	641.8599
Dec	0	0	0.083333	0.166666667	534.8833
Jan	100	1200	0.083333	0.166666667	645.7361
Feb	0	0	0.083333	0.166666667	538.1134
Mar	100	1200	0.083333	0.166666667	648.4278

The above table shows that if a snapshot of AAs is taken, a value of either 0 or 1200 will be extracted, depending on when the snapshot is taken. However, the EAC remains close to the actual annual consumption of 600 units.