Responses from Issue 24 Definition/Assessment/ Draft Report Consultation

Consultation Issued 8 August 2006

Representations were received from the following parties

No	Company	File number	No BSC Parties Represented	No Non-Parties Represented
1.	Western Power Distribution	Issue24_AR _001	2	0
2.	SmartestEnergy Ltd	Issue24_AR _002	1	0
3.	IMServ Europe Ltd	Issue24_AR _003	0	6
4.	Siemens Energy Services	Issue24_AR _004	0	3
5.	United Utilities Electricity	Issue24_AR _005	1	0
6.	Npower Limited	Issue24_AR _006	6	0
7.	Central Networks	Issue24_AR _007	2	0
8.	SAIC Ltd	Issue24_AR _008	7	0
9.	E.ON UK Energy Services Limited	Issue24_AR _009	0	1
10.	EDF ENERGY Networks	Issue24_AR _010	3	0
11.	United Utilities Networks Ltd	Issue24_AR _011	0	1
12.	E.ON UK	Issue24_AR _012	17	0
13.	Scottish and Southern Energy	Issue24_AR _013	6	1
14.	Power Data Associates	Issue24_AR _014	14	0

ISSUE 24 ASSESSMENT PROCEDURE CONSULTATION QUESTIONS

BSC Parties ("Parties") and other interested parties are invited to respond to this consultation expressing their views or provide any further evidence on any of the matters contained within the consultation document. In particular views are sought in respect of the following questions. Parties are invited to supply the rationale for their responses.

Respondent:	*Graham Smith*
Company Name:	*Western Power Distribution*
No. of BSC Parties Represented	*2*
Parties Represented	*Western Power Distribution (South Wales) Ltd* *Western Power Distribution (South West) Ltd.*
No. of Non BSC Parties Represented (e.g. Agents)	*0*
Non Parties represented	*Please list all non Parties responding on behalf of (including the respondent company if relevant).*
Role of Respondent	*Distributors*
Does this response contain confidential information?	*no*

Q	Question	Response	Rationale
1.	Do you believe that the current drafting of the Code causes an issue in relation to the metering of Reactive Power flows, as described in section 1 of the consultation document? Please give rationale.	Yes	This is currently an issue for us due to queries from our Customers in respect of DUoS charges that have been impacted by this anomoly.
2.	Do you believe this issue should be resolved within the BSC or through DUoS charging? Please give rationale.	BSC	The wording of the BSC which requires reactive import to be allocated to the import supplier is the root cause of this problem. Changing DUoS charging methodology to overcome this particular problem could create accusation that our charges were not transparent.
3.	Do you believe that new Metering Equipment should be used to facilitate new arrangements for metering of and responsibility for Reactive Power? Please give rationale.	Yes	This seems an efficient way of overcoming the issue.

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Q	Question	Response	Rationale
4.	Do you believe that the Parties involved should be given the option to agree arrangements for the responsibility for Reactive Power flows at the boundary point? Please give rationale.	No	The BSC should dictate who is responsible. It should not be up to Parties.
5.	If Parties are given the option to agree arrangements, do you believe there should be default arrangements for responsibility for Reactive Power at the boundary point for use in the event that parties cannot reach agreement? Please give rationale.	Yes	If parties are given the option to agree arrangements then there must be a clear way forward to cover instances where agreement can not be reached.
6.	If default arrangements are specified, do you believe that for existing shared sites and Meters they should be the existing arrangements? Please give rationale.	No	This would mean that Customers who are currently receiving high DUoS charges, due to how reactive power flows are treated, will be dependent on Supplier agreement. In the absence of such agreement the Customer can not escape the charges and this does not seem fair. The arrangements described in section 2 of the consultation document should apply for existing shared sites as well as new sites. The BSC modification should stipulate a timescale for transferring existing sites to the new arrangements.
7.	If default arrangements are specified, do you believe that for new shared sites and Meters they should be the arrangements described in section 2 of the consultation document? Please give rationale.	Yes	Yes.
8.	Where do you believe the details of any default arrangement should sit? Please give rationale.	CoP / MOCoPA / Elsewhere (please state)	CoP.

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Q	Question	Response	Rationale
9.	Are there any impacts of moving to the suggested solution that are not identified in the consultation document? Please give details.	Yes	DUoS billing systems may require modification.
10.	Do you believe there are any other solutions to this issue that have not been identified and that should be considered? Please give rationale.	No	
11.	Are there any further comments on Issue 24 or the proposed solution that you wish to make?	No	

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ISSUE 24 ASSESSMENT PROCEDURE CONSULTATION QUESTIONS

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Respondent:	*Colin Prestwich*
Company Name:	*SmartestEnergy Ltd*
No. of BSC Parties Represented	*1*
Parties Represented	*SmartestEnergy Ltd*
No. of Non BSC Parties Represented (e.g. Agents)	*None*
Non Parties represented	
Role of Respondent	*(Supplier/ Trader / Consolidator)*
Does this response contain confidential information?	*No*

Q	Question	Response	Rationale
1.	Do you believe that the current drafting of the Code causes an issue in relation to the metering of Reactive Power flows, as described in section 1 of the consultation document? Please give rationale.	No	We do not believe there is an issue. It is reasonable (since both reactive import and export are chargeable) for the bills to go through the registrant of the import MPAN. Reactive charges can be passed through to customers accordingly. The DNO just needs to ensure that there is an import MPAN registered for each export MPAN they energise.
2.	Do you believe this issue should be resolved within the BSC or through DUoS charging? Please give rationale.		There is no issue and we do not believe there is any inconsistency in BSC. However, if it is felt that current practice is badly captured in BSC, then by all means adapt the wording.
3.	Do you believe that new Metering Equipment should be used to facilitate new arrangements for metering of and responsibility for Reactive Power? Please give rationale.	No	This is unnecessary and would create extra burden on the DNO's to split out the reactive bills. There would be a development cost to the industry with no added benefit.

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Q	Question	Response	Rationale
4.	Do you believe that the Parties involved should be given the option to agree arrangements for the responsibility for Reactive Power flows at the boundary point? Please give rationale.	No	This could lead to confusion. Consistency is required. Consistency is what we have had. No change would ensure future consistency.
5.	If Parties are given the option to agree arrangements, do you believe there should be default arrangements for responsibility for Reactive Power at the boundary point for use in the event that parties cannot reach agreement? Please give rationale.	Yes	We do not agree with the need to allow parties to “agree arrangements”, but to the hypothetical question given we would say “yes.”
6.	If default arrangements are specified, do you believe that for existing shared sites and Meters they should be the existing arrangements? Please give rationale.	Yes	Unnecessary changes should not be forced on any party.
7.	If default arrangements are specified, do you believe that for new shared sites and Meters they should be the arrangements described in section 2 of the consultation document? Please give rationale.	No	The default arrangements should be the current arrangements.
8.	Where do you believe the details of any default arrangement should sit? Please give rationale.		It is a nonsense to suggest that because the BSC does not settle reactive that responsibility for it does not fall within the BSC. (The vast majority of power transacted in the market is not settled by the BSC, only the imbalance). Clearly, overall responsibility is required for the management of reactive data and this is covered by the BSC as currently worded.
9.	Are there any impacts of moving to the suggested solution that are not identified in the consultation document? Please give details.	Yes	More confusion and inconsistency would result within the industry. Why change it?

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Q	Question	Response	Rationale
10.	Do you believe there are any other solutions to this issue that have not been identified and that should be considered? Please give rationale.	No	
11.	Are there any further comments on Issue 24 or the proposed solution that you wish to make?	No	

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ISSUE 24 ASSESSMENT PROCEDURE CONSULTATION QUESTIONS

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Respondent:	Nick White
Company Name:	IMServ Europe Ltd
No. of BSC Parties Represented	
Parties Represented	
No. of Non BSC Parties Represented (e.g. Agents)	6
Non Parties represented	HHDC/DA and MO, NHHDC/DA and MO
Role of Respondent	HHDC, HHMOA
Does this response contain confidential information?	No

Q	Question	Response	Rationale
1.	Do you believe that the current drafting of the Code causes an issue in relation to the metering of Reactive Power flows, as described in section 1 of the consultation document? Please give rationale.	Yes ~~/ No~~	We agree that the reactive data retrieved could prove to be inaccurate in the situations discussed.
2.	Do you believe this issue should be resolved within the BSC or through DUoS charging? Please give rationale.	BSC / DUoS	BSC – See below for comments regarding the metering solution.

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Q	Question	Response	Rationale
3.	Do you believe that new Metering Equipment should be used to facilitate new arrangements for metering of and responsibility for Reactive Power? Please give rationale.	Yes ~~/ No~~	Metering could be implemented to collect all four measurement quantities as described in the Proposal. In terms of configuration, the assumption is that these sites would be represented by 2 separate MPANs, one for import data, and one for Export data (as for Active Energy), and the Reactive Data split across both MPANs. Under these circumstances there would be no impact to DC systems, and it would fall to the responsibility of the Meter Operator to ensure that the correct channels were configured on the meter, and that these were registered correctly across the two MPANs. If the intention is to introduce new measurement quantities for the 'Export' reactive data then significant system changes would be required.
4.	Do you believe that the Parties involved should be given the option to agree arrangements for the responsibility for Reactive Power flows at the boundary point? Please give rationale.	Yes / No	No direct Impact to IMServ.
5.	If Parties are given the option to agree arrangements, do you believe there should be default arrangements for responsibility for Reactive Power at the boundary point for use in the event that parties cannot reach agreement? Please give rationale.	Yes / No	No direct impact to IMServ.
6.	If default arrangements are specified, do you believe that for existing shared sites and Meters they should be the existing arrangements? Please give rationale.	Yes ~~/ No~~	No changes to existing Metering Systems should be mandated by this CP. This should be at the discretion of the registering parties, who would also be responsible for any associated Meter Operator costs.
7.	If default arrangements are specified, do you believe that for new shared sites and Meters they should be the arrangements described in section 2 of the consultation document? Please give rationale.	Yes ~~/ No~~	This approach would prove the least impact on DC systems, and provide the most accurate reactive data measurements.

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Q	Question	Response	Rationale
8.	Where do you believe the details of any default arrangement should sit? Please give rationale.	CoP / MOCoPA / Elsewhere (please state)	MOCoPA would appear to be the most appropriate repository for the default arrangements, with details relating to the configuration of the meter details being reflected in Annex C of the DTC.
9.	Are there any impacts of moving to the suggested solution that are not identified in the consultation document? Please give details.	Yes / No	None identified.
10.	Do you believe there are any other solutions to this issue that have not been identified and that should be considered? Please give rationale.	Yes / No	No.
11.	Are there any further comments on Issue 24 or the proposed solution that you wish to make?	Yes / No	No.

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Respondent:	Lisa Smith
Company Name:	Siemens Energy Services
No. of BSC Parties Represented	0
Parties Represented	N/A
No. of Non BSC Parties Represented (e.g. Agents)	3
Non Parties represented	HHDA, HHDC, HHMO
Role of Respondent	Party Agent
Does this response contain confidential information?	No

Q	Question	Response	Rationale
1.	Do you believe that the current drafting of the Code causes an issue in relation to the metering of Reactive Power flows, as described in section 1 of the consultation document? Please give rationale.	Yes	Currently MO experiences a number of queries generated by differences in the way supplier's apportion Duos in billing, dependant on their relationship with the distribution business.
2.	Do you believe this issue should be resolved within the BSC or through DUoS charging? Please give rationale.	DUoS	It would be better from an agent point of view if changes were made in duos.
3.	Do you believe that new Metering Equipment should be used to facilitate new arrangements for metering of and responsibility for Reactive Power? Please give rationale.	Yes	These meters already exist and therefore advantage should be taken to use them

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Q	Question	Response	Rationale
4.	Do you believe that the Parties involved should be given the option to agree arrangements for the responsibility for Reactive Power flows at the boundary point? Please give rationale.	No	We believe this should be standardised for clarity.
5.	If Parties are given the option to agree arrangements, do you believe there should be default arrangements for responsibility for Reactive Power at the boundary point for use in the event that parties cannot reach agreement? Please give rationale.	Yes	If it is up to the Supplier/LDSO/Customer to agree a configuration for each individual site there is enormous potential for this not be agreed. Also, there may be a delay in agreement (e.g. after the meter has been installed), or once agreed the relevant information may not be returned to the HHDC/ HHDA. Standardisation would remove any confusion and delay.
6.	If default arrangements are specified, do you believe that for existing shared sites and Meters they should be the existing arrangements? Please give rationale.	No	If a party is currently disadvantaged, then allowing for the current status to be the default allows that to continue. Where as if the current situation is to both parties agreement, then adopting the default is not required. Gives poor clarity - Current HH meters store each of the four reactive quantities separately, to store "Total" Reactive Import (when Active is Import and Export) and "Total" Reactive Export (again when Active is Import and Export) introduces extra complexity in the configuration programmed into the meter.
7.	If default arrangements are specified, do you believe that for new shared sites and Meters they should be the arrangements described in section 2 of the consultation document? Please give rationale.	Yes	Standardisation would increase clarity and simplify meter configuration.
8.	Where do you believe the details of any default arrangement should sit? Please give rationale.	CoP	CoP as the definitions for the reactive power terms have been used from the CoP definitions already. It is anticipated that changes would also need to be made to BSCP and DTC documents.

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Q	Question	Response	Rationale
9.	Are there any impacts of moving to the suggested solution that are not identified in the consultation document? Please give details.	Yes	In section 2 the terms 'net active import' and 'net active export' are used. Please could clarity be provided as to whether this relates to aq complex metering totalisation/ summating or netting off arrangement? The consultation states there is no impact on HHDC systems. Could confirmation be provided as to how the HHDC is to get the 6 channels of data into the D0036 and D0275 flows? Would the meters be on one MPAN or two? If one would the MPAN PMQID be import or export? How would each registrant receive their data? Existing Metering Installations - Some older meters can only resolve Reactive Energy flows into two quantities (not the four proposed quantities). Where an existing meter has to be replaced who will pay for this? HHDC Costs - The meter will be storing up to 50% more HH data (6 channels instead of 4) will HH DC costs increase?
10.	Do you believe there are any other solutions to this issue that have not been identified and that should be considered? Please give rationale.	Yes	In recent years the cost of metering systems has been reduced thereby making the option of having separate meters for each measurement quantity a much simpler solution for all. No changes to current procedures for DuoS CoP or BSCP would then be required.
11.	Are there any further comments on Issue 24 or the proposed solution that you wish to make?	Yes	The introduction of the terms "Capacitive" and "Inductive" energy flows may cause further confusion. Meter manufacturers use the terms "Reactive Import" and "Reactive Export" in the software used to programme the meters (including the HH data they store). Therefore introducing new terminology could increase the chances of errors being made.

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Respondent:	*Name: Frank Welsh*
Company Name:	*United Utilities Electricity*
No. of BSC Parties Represented	*1*
Parties Represented	*Please list all BSC Party names of Parties responding on behalf of (including the respondent company if relevant).* *United Utilities Electricity*
No. of Non BSC Parties Represented (e.g. Agents)	
Non Parties represented	*Please list all non Parties responding on behalf of (including the respondent company if relevant).*
Role of Respondent	*(Supplier/Generator/ Trader / Consolidator / Exemptable Generator / BSC Agent / Party Agent / Distributors / other – please state [1]) Distributor*
Does this response contain confidential information?	*No*

Q	Question	Response	Rationale

[1] Delete as appropriate – please do not use strikeout, this is to make it easier to analyse the responses

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Q	Question	Response	Rationale
1.	Do you believe that the current drafting of the Code causes an issue in relation to the metering of Reactive Power flows, as described in section 1 of the consultation document? Please give rationale.	Yes /	General We agree that there is a genuine issue to be resolved, in terms of the appropriate allocation of DUOS charges where Reactive Import is caused by the operation of an Exemptable Generating Plant. We agree with the proposed solution, ie to require the separate metering of Reactive flows (both Import and Export) at times of Active Import and Active Export. **BSC Section K1.2.2 (b)** We do not believe that the wording of the BSC frustrates this solution in respect of Reactive Imports: K1.2.2 (b) (i) specifies the case of "supply of electricity to premises". No reference is made to the following subparagraphs being exceptions to subparagraph (i), and we therefore interpret them as being mutually exclusive. Subparagraph (ii) specifies the case of "Import to a (Licensed) Generating Plant" The section remains silent as to the case of Import to an Exemptable Generating Plant. We do not believe that the interpretation should default to subparagraph (i). However there is also a catch-all subparagraph: (v) in any other case, [the Party responsible] shall be determined by the Panel after consultation with the Authority, on application of any Party; It is therefore possible for the Panel to determine a solution to the issue, although the opportunity should be taken to embed the solution in the BSC, if practicable. BSC Section K1.1.4 (b) and Electricity Act definitions The terms Export and Import in respect of reactive power are simply naming conventions, relating to capacitive reactive and inductive reactive respectively. It should be noted that a pure reactive flow (having no resistive element) would have zero net energy transfer associated with it. In this context, it would seem disproportionate to apply rigid interpretation of the BSC or Electricity Act definitions to reactive power flows.

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2.	Do you believe this issue should be resolved within the BSC or through DUoS charging? Please give rationale.	BSC /	We support the resolution of this issue through the BSC. We agree with the Group's analysis of the drawbacks of solely relying on changes to DUOS charging methodologies.
3.	Do you believe that new Metering Equipment should be used to facilitate new arrangements for metering of and responsibility for Reactive Power? Please give rationale.	Yes /	We agree that new metering equipment should be used, on the basis of the advantages put forward by the Group.
4.	Do you believe that the Parties involved should be given the option to agree arrangements for the responsibility for Reactive Power flows at the boundary point? Please give rationale.	/ No	We support the proposed solution as defined as being taken forward for modification.
5.	If Parties are given the option to agree arrangements, do you believe there should be default arrangements for responsibility for Reactive Power at the boundary point for use in the event that parties cannot reach agreement? Please give rationale.	Yes /	It is clearly sensible that there should be a default position if parties are given the option to agree arrangements and then fail to agree.

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6.	If default arrangements are specified, do you believe that for existing shared sites and Meters they should be the existing arrangements? Please give rationale.	/ No	It would be preferable to migrate users over to the new arrangements, and this should be the default position for any failure to agree.
7.	If default arrangements are specified, do you believe that for new shared sites and Meters they should be the arrangements described in section 2 of the consultation document? Please give rationale.	/ No	See above.
8.	Where do you believe the details of any default arrangement should sit? Please give rationale.	CoP /	Elexon's Metering Codes of Practice specify metering arrangements and would seem to be the logical home for this. It is not considered to be within the scope or vires of MOCOPA.
9.	Are there any impacts of moving to the suggested solution that are not identified in the consultation document? Please give details.	/ No	
10.	Do you believe there are any other solutions to this issue that have not been identified and that should be considered? Please give rationale.	/ No	
11.	Are there any further comments on Issue 24 or the proposed solution that you wish to make?	/ No	

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Respondent:	*Laura Doherty*
Company Name:	*Npower Limited*
No. of BSC Parties Represented	*6*
Parties Represented	*Npower Limited, Npower Direct Limited, Npower Northern Limited, Npower Northern Supply Limited, Npower Yorkshire Limited, Npower Yorkshire Supply Limited*
No. of Non BSC Parties Represented (e.g. Agents)	
Non Parties represented	*Please list all non Parties responding on behalf of (including the respondent company if relevant).*
Role of Respondent	*Supplier*
Does this response contain confidential information?	

Q	Question	Response	Rationale
1.	Do you believe that the current drafting of the Code causes an issue in relation to the metering of Reactive Power flows, as described in section 1 of the consultation document? Please give rationale.	No	The issue hinges upon the interpretation of 'electricity' within the Code as meaning Active Energy and Reactive Energy. The interpretation of the 'import' of Reactive Energy as an import of electricity is clearly not safe.
2.	Do you believe this issue should be resolved within the BSC or through DUoS charging? Please give rationale.	BSC	Whilst it is appropriate for DNOs to take measures to make sure DUoS charging is cost-reflective in the interim, any work-around will not be suitable as an enduring solution.
3.	Do you believe that new Metering Equipment should be used to facilitate new arrangements for metering of and responsibility for Reactive Power? Please give rationale.	Yes	If new Metering Equipment is required to ensure data can be resolved to the correct level then it should be employed. However, it would be disproportionate to place obligations in this regard and so installing new Metering Equipment must be optional

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Q	Question	Response	Rationale
4.	Do you believe that the Parties involved should be given the option to agree arrangements for the responsibility for Reactive Power flows at the boundary point? Please give rationale.	No	Not withstanding the need to retain optionality, Reactive Power flows can only reasonably be attached to the Party causing them and agreements to the contrary would not be sensible.
5.	If Parties are given the option to agree arrangements, do you believe there should be default arrangements for responsibility for Reactive Power at the boundary point for use in the event that parties cannot reach agreement? Please give rationale.	Yes	As for Question 4, there needs to be a mechanism for ensuring that Reactive Power flows are attached to the correct Party, when this is causing an issue.
6.	If default arrangements are specified, do you believe that for existing shared sites and Meters they should be the existing arrangements? Please give rationale.	Yes	This is consistent with not obliging Party to change arrangements where no issue has been identified.
7.	If default arrangements are specified, do you believe that for new shared sites and Meters they should be the arrangements described in section 2 of the consultation document? Please give rationale.	Yes	The arrangements described appear to deliver the correct result
8.	Where do you believe the details of any default arrangement should sit? Please give rationale.	CoP/MOCoPs	Both for completeness
9.	Are there any impacts of moving to the suggested solution that are not identified in the consultation document? Please give details.	No	
10.	Do you believe there are any other solutions to this issue that have not been identified and that should be considered? Please give rationale.	No	

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Q	Question	Response	Rationale
11.	Are there any further comments on Issue 24 or the proposed solution that you wish to make?	Yes	As mentioned within the consultation, the definition of Reactive Power does not appear accurate as written unless assumptions are made of what is implied. This will have an impact on HHMOA. We would want any proposed change to have an effective from date so only meters installed or replaced after this date would be affected.

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Respondent:	*Andrew Neves*
Company Name:	*Central Networks*
No. of BSC Parties Represented	*Two*
Parties Represented	*Central Networks East, Central Networks West*
No. of Non BSC Parties Represented (e.g. Agents)	
Non Parties represented	
Role of Respondent	*LDSO*
Does this response contain confidential information?	*No*

Q	Question	Response	Rationale
1.	Do you believe that the current drafting of the Code causes an issue in relation to the metering of Reactive Power flows, as described in section 1 of the consultation document? Please give rationale.	Yes	The BSC effectively forces mis-allocation of reactive power in some circumstances and this can give rise to inappropriate and excessive DUoS charges. This can be an issue for LDSO, supplier and generator parties.
2.	Do you believe this issue should be resolved within the BSC or through DUoS charging? Please give rationale.	BSC	It appears that the BSC prevents a reasonable solution in this case (i.e. the agreed allocation of reactive power data to parties). If this is the case - and there have been discussions about whether the legal opinion is correct - than the BSC will have to be changed
3.	Do you believe that new Metering Equipment should be used to facilitate new arrangements for metering of and responsibility for Reactive Power? Please give rationale.	Yes	In some circumstances new (six channel) metering equipment might be appropriate. This metering arrangement would allow the collection of data that would correctly allocate reactive power at each moment in time according to the direction of flow of active power and that would record lead and lag separately in each case.

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Q	Question	Response	Rationale
4.	Do you believe that the Parties involved should be given the option to agree arrangements for the responsibility for Reactive Power flows at the boundary point? Please give rationale.	Yes	The circumstances in which issues can arise about responsibility for reactive power flows can be complex and would probably best be resolved by agreement between the parties involved
5.	If Parties are given the option to agree arrangements, do you believe there should be default arrangements for responsibility for Reactive Power at the boundary point for use in the event that parties cannot reach agreement? Please give rationale.	Yes	I support the concept of default arrangements but would have to be sure that these would be appropriate and effective in all circumstances. In the absence of default arrangements it is difficult to see how any failure of parties to agree responsibility could ultimately be resolved
6.	If default arrangements are specified, do you believe that for existing shared sites and Meters they should be the existing arrangements? Please give rationale.	No	The concern would be that one party could be disadvantaged if the other party failed to agree arrangements for an existing site and the existing metering (which may mis-allocate reactive power) became the default
7.	If default arrangements are specified, do you believe that for new shared sites and Meters they should be the arrangements described in section 2 of the consultation document? Please give rationale.	Yes	These arrangements would ensure that active and reactive power flows occurring at the same instant in time were allocated to the same party (i.e. the party responsible for the active import or export as the case may be).
8.	Where do you believe the details of any default arrangement should sit? Please give rationale.	CoP / MOCoPA / Elsewhere (please state)	The relevant COP would seem the obvious place for this type of information to sit.
9.	Are there any impacts of moving to the suggested solution that are not identified in the consultation document? Please give details.	Yes / No	

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Q	Question	Response	Rationale
10.	Do you believe there are any other solutions to this issue that have not been identified and that should be considered? Please give rationale.	Yes / No	
11.	Are there any further comments on Issue 24 or the proposed solution that you wish to make?	Yes / No	

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ISSUE 24 ASSESSMENT PROCEDURE CONSULTATION QUESTIONS

BSC Parties ("Parties") and other interested parties are invited to respond to this consultation expressing their views or provide any further evidence on any of the matters contained within the consultation document. In particular views are sought in respect of the following questions. Parties are invited to supply the rationale for their responses.

Respondent:	James Nixon
Company Name:	SAIC Ltd
No. of BSC Parties Represented	7
Parties Represented	*Please list all BSC Party names of Parties responding on behalf of (including the respondent company if relevant).* Scottish Power UK plc; ScottishPower Energy Management Ltd; ScottishPower Generation Ltd; ScottishPower Energy Retail Ltd; SP Transmission Ltd; SP Manweb Plc; SP Distribution Ltd
No. of Non BSC Parties Represented (e.g. Agents)	*0*
Non Parties represented	*Please list all non Parties responding on behalf of (including the respondent company if relevant).*
Role of Respondent	*(Supplier/Generator/ Trader / Consolidator / Exemptable Generator / BSC Agent / Party Agent / Distributors / other – please state [1])* Supplier / Generator / Trader / Consoldiator / Exemptable Generator / Distributor
Does this response contain confidential information?	No

Q	Question	Response	Rationale
1.	Do you believe that the current drafting of the Code causes an issue in relation to the metering of Reactive Power flows, as described in section 1 of the consultation document? Please give rationale.	Yes	The current provisions of the Code do not allow for the proper apportioning of responsibility for Reactive Power flows. Nonetheless, although the change gives more visibility of channels and certainly provides more accuracy, many of the current issues with these type of sites will remain e.g. there is still the issue of faults, missing and estimated data on a channel that is not visible having an impact on the net position

[1] Delete as appropriate – please do not use strikeout, this is to make it easier to analyse the responses

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Q	Question	Response	Rationale
2.	Do you believe this issue should be resolved within the BSC or through DUoS charging? Please give rationale.	BSC	This will provide greater consistency throughout the country. However the VASMG also need to consider the implications for changes to registrations and the redesign of DTC flows etc.
3.	Do you believe that new Metering Equipment should be used to facilitate new arrangements for metering of and responsibility for Reactive Power? Please give rationale.	Yes	In future it will be necessary to measure all 6 quantities, whereas the present meters typically only measure 4. However, we believe that the VASMG also need to consider the likely availability and cost of these meters. We also need to know who currently manufactures them and whether they would be able to meet the likely increase in demand. Is there any competition in this market, or would we be looking at a Sole Supplier etc?
4.	Do you believe that the Parties involved should be given the option to agree arrangements for the responsibility for Reactive Power flows at the boundary point? Please give rationale.	Qualified Yes	For existing sites, the present arrangements should be allowed to prevail, provided there is no disagreement between those concerned. However, for all new sites the arrangements should be as detailed in the proposed solution. Where there is disagreement between the different parties at an existing site, the new arrangements proposed in the solution should then replace any pre-existing agreements.
5.	If Parties are given the option to agree arrangements, do you believe there should be default arrangements for responsibility for Reactive Power at the boundary point for use in the event that parties cannot reach agreement? Please give rationale.	Yes	See answer to Q4 above
6.	If default arrangements are specified, do you believe that for existing shared sites and Meters they should be the existing arrangements? Please give rationale.	Yes	See answer to Q4 above

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Q	Question	Response	Rationale
7.	If default arrangements are specified, do you believe that for new shared sites and Meters they should be the arrangements described in section 2 of the consultation document? Please give rationale.	Yes	Although some concerns may remain over management of the new data, the arrangements do seem to fit the requirements.
8.	Where do you believe the details of any default arrangement should sit? Please give rationale.	BSC	This provides the greatest visibility
9.	Are there any impacts of moving to the suggested solution that are not identified in the consultation document? Please give details.	Yes	There may be some impact on systems from receiving the additional data.
10.	Do you believe there are any other solutions to this issue that have not been identified and that should be considered? Please give rationale.	No	
11.	Are there any further comments on Issue 24 or the proposed solution that you wish to make?	Yes	Further issues may arise from the lack of visibility of "AE" for the supplier of the Import supply and *vice versa*.

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ISSUE 24 ASSESSMENT PROCEDURE CONSULTATION QUESTIONS

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Respondent:	*Name Rob Smith*
Company Name:	*E.ON UK Energy Services Limited*
No. of BSC Parties Represented	*None*
Parties Represented	*Please list all BSC Party names of Parties responding on behalf of (including the respondent company if relevant).*
No. of Non BSC Parties Represented (e.g. Agents)	*One*
Non Parties represented	*Please list all non Parties responding on behalf of (including the respondent company if relevant).*
Role of Respondent	*Party Agent*
Does this response contain confidential information?	*No*

Q	Question	Response	Rationale
1.	Do you believe that the current drafting of the Code causes an issue in relation to the metering of Reactive Power flows, as described in section 1 of the consultation document? Please give rationale.	Yes	Within the context of the issue being raised, the current drafting of the code creates an inconsistency with regard to associated responsibilities.
2.	Do you believe this issue should be resolved within the BSC or through DUoS charging? Please give rationale.	BSC	To provide some future proofing against the expected rise in the number of exempt generating plant, it would appear that making necessary changes to the code would be more beneficial. However, this in itself should not rule out the possibility of some fall back position being implemented within DUoS charging.
3.	Do you believe that new Metering Equipment should be used to facilitate new arrangements for metering of and responsibility for Reactive Power? Please give rationale.	Yes	It is reasonable to consider the use of new metering equipment to facilitate these arrangements providing MOA's (MAP's/MAM's) are suitably remunerated.

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Q	Question	Response	Rationale
4.	Do you believe that the Parties involved should be given the option to agree arrangements for the responsibility for Reactive Power flows at the boundary point? Please give rationale.	Yes	Within the context of the issue it seems reasonable to provide affected parties the option of being able to agree suitable responsibility as it avoids the 'one-size-fits-all' approach.
5.	If Parties are given the option to agree arrangements, do you believe there should be default arrangements for responsibility for Reactive Power at the boundary point for use in the event that parties cannot reach agreement? Please give rationale.	Yes	Again, within the context of this issue, it seems appropriate to apply some default position where agreement isn't achieved. Not having a default position would create a risk for all involved participants.
6.	If default arrangements are specified, do you believe that for existing shared sites and Meters they should be the existing arrangements? Please give rationale.	Yes	Unequivocally, where agreement is not achieved it is most preferable to maintain the status quo as this is the least impact option.
7.	If default arrangements are specified, do you believe that for new shared sites and Meters they should be the arrangements described in section 2 of the consultation document? Please give rationale.	Yes	Where new metering has already been applied then the arrangements described under section 2 effectively become the status quo arrangement and would then become the least impact option under these circumstances.
8.	Where do you believe the details of any default arrangement should sit? Please give rationale.	CoP	Meter functionality has traditionally been documented under the appropriate CoP. It is not clear why it should be considered any different under these circumstances. Where the Code is changed it is also likely that this would have implications for the associated PSL's and BSCP's. The MOCoPA is not an appropriate place for this by itself, but will probably require some amendment to ensure compatibility with the BSC and subsidiary documentation changes.
9.	Are there any impacts of moving to the suggested solution that are not identified in the consultation document? Please give details.	Yes	The potential volume of meter changes does not appear to have been considered in the consultation document, nor the potential associated costs.

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Q	Question	Response	Rationale
10.	Do you believe there are any other solutions to this issue that have not been identified and that should be considered? Please give rationale.	No	
11.	Are there any further comments on Issue 24 or the proposed solution that you wish to make?	Yes	Although detail should not be included (as is the normal case under the BSC) recognition of the commercial relationship between the meter registrant and the meter service provider needs to be clear and unambiguous.

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ISSUE 24 ASSESSMENT PROCEDURE CONSULTATION QUESTIONS

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Respondent:	HAZEL COTMAN
Company Name:	EDF ENERGY Networks
No. of BSC Parties Represented	3
Parties Represented Please list all BSC Party names of Parties responding on behalf of (including the respondent company if relevant).	EDF ENERGY NETWORKS (EPN) PLC EDF ENERGY NETWORKS (LPN) PLC EDF ENERGY NETWORKS (SPN) PLC
No. of Non BSC Parties Represented (e.g. Agents)	
Non Parties represented	Please list all non Parties responding on behalf of (including the respondent company if relevant).
Role of Respondent	Distributors
Does this response contain confidential information?	NO

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Q1	Question	Response	Rationale
1.	Do you believe that the current drafting of the Code causes an issue in relation to the metering of Reactive Power flows, as described in section 1 of the consultation document? Please give rationale.	Yes	A literal understanding of 'flow' is that flow can be in only one of two states at any instant. Literally flows can be IN or OUT but not in both directions at the same instance. The present arrangement and recent legal advice run contrary to a robust, simple and effective allocation of responsibility to parties undertaking Supply or Generator roles as defined in the Electricity Act. Electricity flow, in a physical sense, is a singular flow of electricity either IN or OUT of a metering point, namely Supply or Generation. In generic engineering terms a flow of electricity with Active Power flowing out of a metering point is an OUT (Export) flow whether or not the associated Reactive Power at those instances is leading or lagging. Similarly a flow of electricity with Active Power flowing into a metering point is an IN (Import) flow whether or not the associated Reactive Power at those instances is leading or lagging. The definition of Electricity in the BSC is defined as; Electricity - "electricity means Active Energy and Reactive Energy" The interpretation of the word 'and' in the BSC definition of Electricity in recent Elexon legal advice has clearly construed the use of the word 'and' as a logical OR meaning that both Active OR Reactive arithmetical components of electricity flow are treated as directions of flow in their own right even when occurring at the same instant. Such an interpretation is inconsistent with Electricity having a flow that can be in only one of two states, namely IN (Import/Supply) or OUT (Export/Generate) at any instant. The BSC interpretation has led to Consuming Sites with no export of reactive energy but which have 'leading reactive power' having the leading Reactive Power component ascribed as Export even though no export flow (OUT flow) in the sense of Active Power

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Q1	Question	Response	Rationale
			occurs. In practice we believe metering at 1 in 5 import only sites is configured with Reactive Export registers on the Import MPAN, **implicitly inconsistent** with guidance on the treatment of 'export quantities', as the current BSC wording and recent Elexon guidance would imply. A similar situation occurs for Export Sites that have import of reactive energy at times of exporting Active Power. In contrast to the approach taken in practice for Import only sites, the Reactive Power component is ascribed as Import for most Exporting sites even though no import flow (IN flow) in the sense of Active Power occurs The resulting calculations of such matters as power factor during times of import or export or the calculation of maximum demands or maximum exports, with data being allocated to MPANs in this way, causes considerable problems for distributor, supplier and customer (demand or generator) in the visibility of data on which charges for use of system may be made. Distributors, to varying degrees, presently attempt to manage the data and not charge where the reactive metering register data is associated with another MPAN for which the appointed supplier does not have visibility of the data. These manual workarounds will not be sustainable with increasing focus on compliance with use of system charging methodologies and an underlying need to correctly and consistently apply cost reflective charges in a changing distribution environment. A more accurate definition, correctly emphasising the word 'and' as a logical AND would cause the metering data to better reflect the physical reality. A suggested alternative definition of Electricity in the sub-ordinate BSC documentation is provided below.

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Q1	Question	Response	Rationale
			Electricity * means a flow of electricity ~~means~~ comprising the components of Active Energy and Reactive Energy, such flow of electricity being; i) in the case of a flow of electricity **from** Public Distribution System Operators network through a Defined Metering Point, comprising the instances of **Import** of Active Energy with corresponding Import or Export of Reactive Energy at those instances. ii) in the case of a flow of electricity through a Defined Metering Point **to** the Public Distribution System Operators network comprising the instances of **Export** of Active Export Energy with corresponding Import or Export of Reactive Energy at those instances,

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Q2	Question	Response	Rationale
2.	Do you believe this issue should be resolved within the BSC or through DUoS charging? Please give rationale.	BSC	The matter should, for the benefit of all parties, specifically suppliers, appointed meter operators, data collectors and data aggregators be addressed by correcting the BSC documentation so that national market consistency can be maintained. With an increasing dynamism within distribution networks as a result of both distributed generation and increasingly dynamic forms of consumption it is also inappropriate to use manual workarounds to cease charging appropriate cost reflective charges due to the present definitions of electricity flow. Rather the BSC and other relevant documentation and processes should be revised, as per the issue raised within Issue 24, to reflect the present environment, more so given that metering technologies and processes are available to more correctly deal with this issue that would otherwise not have been possible in the 1990s.

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Q3	Question	Response	Rationale
3.	Do you believe that new Metering Equipment should be used to facilitate new arrangements for metering of and responsibility for Reactive Power? Please give rationale.	Yes	The Metering System on site is the only location and the only time at which measurement of Active and Reactive components, instant by instant, can allocate the relevant Active and Reactive components to the appropriate AI, AE. RI, RE registers for the relevant MPAN, either import or export. There is no other place at which assignments of flow components instant by instant could be made. Modern forms of electronic metering have algorithms to determine the flow of Active Power and at the same instances determine whether Reactive Power is leading or lagging. Modern forms of meter are available that can do so either individually as an Import only meter, Export only meter or a combined Import and Export meter, controllable/configurable through software configuration off site or on site.

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Q4	Question	Response	Rationale
4.	Do you believe that the Parties involved should be given the option to agree arrangements for the responsibility for Reactive Power flows at the boundary point? Please give rationale.	Yes	Yes, subject to a default arrangement that deals with the issue described and solution proposed in the consultation, if both parties wish to allocate Reactive Power flows differently cognisant of the resultant differing Use of System charges that may be levied then we do not believe this should be precluded. It could be interpreted that for existing import only sites that this option already occurs since in 1 in 5 instances of import only sites the import MPAN has a Reactive Export register..in line with the proposed solution. It could be implied that present practice by the suppliers is agreeing that a Reactive Export register should be assigned to the Import MPAN in order to avoid having to install and operate an Export Meter.

Q5	Question	Response	Rationale
5.	If Parties are given the option to agree arrangements, do you believe there should be default arrangements for responsibility for Reactive Power at the boundary point for use in the event that parties cannot reach agreement? Please give rationale.	Yes	Yes, for national consistency, we would support a default configuration arrangement for; import only, export only, combined import/export…so that meter manufacturers can have certainty of market requirements and to minimise the configuration effort required by meter operators to a minimum in most cases.

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Q6	Question	Response	Rationale
6.	If default arrangements are specified, do you believe that for existing shared sites and Meters they should be the existing arrangements? Please give rationale.	Yes	Consistent with our response to Q4 we suggest that existing sites are free to continue their present arrangements, which would then be non-standard if the proposed solution is implemented, but cognisant of the implications as noted in Q4 the parties would be free to migrate to the new standard configuration as and when desired.

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Q7	Question	Response	Rationale
7.	If default arrangements are specified, do you believe that for new shared sites and Meters they should be the arrangements described in section 2 of the consultation document? Please give rationale.	Yes	Yes. Any new sites, whether shared or unshared, should have Active and Reactive components assigned according to instances of Active Power flow, meaning that the supplier for the respective MPAN would have access to the complete data set on which their subsequent Use of System charges would be made, making the process transparent, robust and removing a prime source of dispute.

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Q8	Question	Response	Rationale
8.	Where do you believe the details of any default arrangement should sit? Please give rationale.	CoP	Our investigation of the BSC, COPs and MOCOPA indicates that changes to the Metering Codes of Practice may be sufficient, in addition to our suggestion under Q1. MOCOPA does not need immediate change since the relevant material is the inclusion as references of the COPs only. It may be that higher level definitions of Electricity in the BSC which include references to Active and Reactive Energy may need to be corrected also. Suggested changes, based on COP1 are provided below. **Extract of relevant clauses from COP 1 (strikethrough = delete, underline = insert)** **Suggesting changes required to give effective implementation to resolve Issue 24.** 3.12 Electricity * means a flow of electricity ~~means~~ comprising the components of Active Energy and Reactive Energy, such flow of electricity being; i) in the case of a flow of electricity **from** Public Distribution System Operators network through a Defined Metering Point, comprising the instances of **Import** of Active Energy with corresponding Import or Export of Reactive Energy at those instances. ii) in the case of a flow of electricity through a Defined Metering Point **to** the Public Distribution System Operators network comprising the instances of **Export** of Active Export Energy with corresponding Import or Export of Reactive Energy at those instances, 4.1.1 Measured Quantities For each separate circuit the following energy measurements are required for Settlement purposes:- ~~(i) Import MWh~~

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Q8	Question	Response	Rationale
			~~(ii) Export MWh~~ ~~(iii) Import Mvarh~~ ~~(iv) Export Mvarh~~ (i) Import MWh with corresponding; (a) Import MVArh occurring at those instances at which Import MWh occurs. and (b) Export MVArh occurring at those instances at which Import MWh occurs. and (ii) Export MWh with corresponding; (a) Import MVArh occurring at those instances at which Export MWh occurs. and (b) Export MVArh occurring at those instances at which Export MWh occurs and; 4.1.2 Demand Values For each Demand Period for each circuit the following Demand Values shall be provided:- ~~(i) Import MW~~ ~~(ii) Export MW *~~ ~~(iii) Import Mvar *~~ ~~(iv) Export Mvar~~

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Q8	Question	Response	Rationale
			(i) Import MW * with corresponding; (a) Import MVAr associated with instances at which Import MW occurs and; (b) Export MVAr associated with instances at which Import MW occurs. AND (ii) Export MW * with corresponding; (a) Import MVAr associated with instances at which Export MW occurs and; (b) Export MVAr associated with instances at which Export MW occurs and; * Import and/or Export metering need only be installed where a Party requires this measurement to meet system or plant conditions. Where Import and Export metering is installed gross Import and gross Export Active Energy shall be recorded separately for Settlements. For multiple circuit connections between Parties the configuration of the Metering Equipment shall be agreed in advance with the Panel. 2 REACTIVE ENERGY Within the context of this code the relationship between Active Energy and Reactive Energy can best be established by means of the power factor. The following table gives the relationship:-

Flow of Electricity	Nominal flow ~~Flow~~ of Active Energy	Power Factor	Nominal flow ~~Flow~~ of Reactive Energy
IMPORT	Import	Lagging	Import

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Q8	Question	Response	Rationale

IMPORT	Import	Leading	Export
IMPORT	Import	Unity	Zero
EXPORT	Export	Lagging	Export
EXPORT	Export	Leading	Import
EXPORT	Export	Unity	Zero

~~Meters or~~ Meter Registers for registering Import Reactive Energy should be labelled "Import" and those for registering Export Reactive Energy should be labelled "Export".

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Q9	Question	Response	Rationale
9.	Are there any impacts of moving to the suggested solution that are not identified in the consultation document? Please give details.	No	We do not believe so, if the option for existing sites to continue their present arrangements cognisant of the implications, as we noted in Q4, is permitted.

Q10	Question	Response	Rationale
10.	Do you believe there are any other solutions to this issue that have not been identified and that should be considered? Please give rationale.	No	We do not believe so if the approach we suggest against Q4/Q9 is adopted.

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Q11	Question	Response	Rationale
11.	Are there any further comments on Issue 24 or the proposed solution that you wish to make?	Yes	We do not believe so.

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Respondent:	*Name: C T Lawton*
Company Name:	*United Utilities Networks Ltd*
No. of BSC Parties Represented	
Parties Represented	
No. of Non BSC Parties Represented (e.g. Agents)	*1*
Non Parties represented	*United Utilities Networks Ltd*
Role of Respondent	*Meter Operator*
Does this response contain confidential information?	*No*

Q	Question	Response	Rationale
1.	Do you believe that the current drafting of the Code causes an issue in relation to the metering of Reactive Power flows, as described in section 1 of the consultation document? Please give rationale.	Yes /	We agree that there is a genuine issue to be resolved, and agree with the proposed solution, ie to require the separate metering of Reactive flows (both Import and Export) at times of Active Import and Active Export.

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2.	Do you believe this issue should be resolved within the BSC or through DUoS charging? Please give rationale.	BSC /	We support the resolution of this issue through the BSC. We agree with the Group's analysis of the drawbacks of solely relying on changes to DUOS charging methodologies.
3.	Do you believe that new Metering Equipment should be used to facilitate new arrangements for metering of and responsibility for Reactive Power? Please give rationale.	Yes /	Agree that new metering equipment could be used, on the basis of the advantages put forward by the Group.
4.	Do you believe that the Parties involved should be given the option to agree arrangements for the responsibility for Reactive Power flows at the boundary point? Please give rationale.	Yes /	Local or site specific considerations may make this appropriate in some situations
5.	If Parties are given the option to agree arrangements, do you believe there should be default arrangements for responsibility for Reactive Power at the boundary point for use in the event that parties cannot reach agreement? Please give rationale.	Yes /	Sensible that there should be a default position if parties fail to agree.
6.	If default arrangements are specified, do you believe that for existing shared sites and Meters they should be the existing arrangements? Please give rationale.	Yes /	Following previous practices – site should only be upgraded when the existing equipment comes up for renewal or there are other significant changes necessitating replacement of the metering. If suppliers require that the site be upgraded solely for the purpose of 'issue 24', then they should meet the cost

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7.	If default arrangements are specified, do you believe that for new shared sites and Meters they should be the arrangements described in section 2 of the consultation document? Please give rationale.	Yes /	
8.	Where do you believe the details of any default arrangement should sit? Please give rationale.	CoP /	Elexon's Metering Codes of Practice specify metering arrangements and would seem to be the logical home for this. It is not considered to be within the scope or vires of MOCOPA.
9.	Are there any impacts of moving to the suggested solution that are not identified in the consultation document? Please give details.	Yes /	One meter currently used for Code of Practice 1 and Code of Practice 2 applications cannot apparently support this. A second meter has no auxiliary supply and would therefore not fully comply with Codes 1 and 2. For Code of Practice 3 applications, where this meter is are used, there would need to be a "rewrite" of the programming applications to support the requirement. There are concerns if this were to be applied retrospectively as existing import/export sites using older programmable polyphase meters would require changing, as they too cannot support this requirement. Has the situation been considered where zero or negligible levels of Active Import and Active Export energy occur? This situation can lead to high levels of reactive energy that can vary between import and export in short periods of time.
10.	Do you believe there are any other solutions to this issue that have not been identified and that should be considered? Please give rationale.	Yes /	Other solutions should also be considered such as aggregation of the half hour data. Suppliers should insist their customers operate their generation equipment in the most efficient way to minimise reactive power charges.
11.	Are there any further comments on Issue 24 or the proposed solution that you wish to make?	Yes /	Suppliers could pass their incurred costs on to the generators, since it is the generators who are causing the reactive energy flow.

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ISSUE 24 ASSESSMENT PROCEDURE CONSULTATION QUESTIONS

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Respondent:	*Rosie McGlynn*
Company Name:	*E.ON UK*
No. of BSC Parties Represented	*17*
Parties Represented	E.ON UK plc (SVA), E.ON UK plc (CVA), Powergen Retail Ltd, Citigen (London) Ltd, Cottam Development Centre Ltd, Enizade Ltd, E.ON UK Drakelow Ltd, E.ON UK High Marnham Ltd, E.ON UK Ironbridge Ltd, Midlands Gas Ltd, Severn Trent Energy Ltd, TXU Europe (AHG) Ltd, TXU Europe (AHGD) Ltd, TXU Europe (AH Online) Ltd, Economy Power, Western Gas Ltd, Powergen Retail Gas (Eastern) Ltd
No. of Non BSC Parties Represented (e.g. Agents)	0
Non Parties represented	*Please list all non Parties responding on behalf of (including the respondent company if relevant).*
Role of Respondent	*(Supplier/Generator*
Does this response contain confidential information?	*No*

Q	Question	Response	Rationale
1.	Do you believe that the current drafting of the Code causes an issue in relation to the metering of Reactive Power flows, as described in section 1 of the consultation document? Please give rationale.	No	The current drafting of the Code does not cause an issue as described in section one of the consultation document. The structure of Use of System Charges is currently under review by Ofgem and this issue could be discussed at that fora.
2.	Do you believe this issue should be resolved within the BSC or through DUoS charging? Please give rationale.	No	This issue does not sit within the remit of the BSC and could form part of DCUSA discussions. It is not clear where the resolution of the issue would be carried out.
3.	Do you believe that new Metering Equipment should be used to facilitate new arrangements for metering of and responsibility for Reactive Power? Please give rationale.	No	There is no requirement for new arrangements for metering and responsibility for Reactive Power.

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Q	Question	Response	Rationale
4.	Do you believe that the Parties involved should be given the option to agree arrangements for the responsibility for Reactive Power flows at the boundary point? Please give rationale.	N/A	This is a moot point, Parties are already agreeing arrangements for reactive power. There is no evidence that there is a necessity for any additional guidance in this area.
5.	If Parties are given the option to agree arrangements, do you believe there should be default arrangements for responsibility for Reactive Power at the boundary point for use in the event that parties cannot reach agreement? Please give rationale.	N/A	See above.
6.	If default arrangements are specified, do you believe that for existing shared sites and Meters they should be the existing arrangements? Please give rationale.	No	There is no requirement for default arrangements.
7.	If default arrangements are specified, do you believe that for new shared sites and Meters they should be the arrangements described in section 2 of the consultation document? Please give rationale.	No	Making the new type of metering the default for new sites and Metering Systems is a costly and potentially commercially inhibitive approach. There is no requirement for default arrangements.
8.	Where do you believe the details of any default arrangement should sit? Please give rationale.	N/A	See above

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Q	Question	Response	Rationale
9.	Are there any impacts of moving to the suggested solution that are not identified in the consultation document? Please give details.	Yes	• This solution does not enhance networks abilities to reduce losses if generators have installed capacitor equipment which could neutralise the reactive power. The onus is on the customer (the owner / operator of the generator) to ensure that their equipment operatives a reasonable power factor, as failure to do so will result in additional charges i.e. excess reactive power charges. This philosophy mirrors that applied to import customers connected to the same system and is therefore non-discriminatory. • The additional workload this approach will enforce upon Parties e.g. doubling the amount of invoice validation carried out by Suppliers.
10.	Do you believe there are any other solutions to this issue that have not been identified and that should be considered? Please give rationale.	Yes	• The solutions to avoid reactive power charges will be site specific. In the case of inductive machines (wind generation) it may require the use of Capacitors etc to reduce the amount of VAr's being drawn from the system. In the case of synchronous machines, which are frequently used at landfill and waste incineration sites, power factor is controlled by the amount of excitation applied to the machine i.e. it is under the control of the customer. • The ability of generators to purchase specific equipment which will neutralise the reactive power and eradicate reactive power charges has not been discussed widely to date. This equipment would reflect a market based solution to this issue and would not force Parties down a specified route.
11.	Are there any further comments on Issue 24 or the proposed solution that you wish to make?	No	

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ISSUE 24 ASSESSMENT PROCEDURE CONSULTATION QUESTIONS

BSC Parties ("Parties") and other interested parties are invited to respond to this consultation expressing their views or provide any further evidence on any of the matters contained within the consultation document. In particular views are sought in respect of the following questions. Parties are invited to supply the rationale for their responses.

Respondent:	*Name Sue Edwards*
Company Name:	*Scottish and Southern Energy*
No. of BSC Parties Represented	*6*
Parties Represented	*SSE Energy Supply Ltd., SSE Generation Ltd., Keadby Generation Ltd., Medway Power Ltd., Southern Electric Power Distribution plc., Scottish Hydro-Electric Power Distribution Ltd.*
No. of Non BSC Parties Represented (e.g. Agents)	*1*
Non Parties represented	*SSE Services Ltd.*
Role of Respondent	*(Supplier/Generator/ Trader / Exemptable Generator / Party Agent / Distributors /*
Does this response contain confidential information?	*No*

Q	Question	Response	Rationale
1.	Do you believe that the current drafting of the Code causes an issue in relation to the metering of Reactive Power flows, as described in section 1 of the consultation document? Please give rationale.	Yes / No	Yes. Imposes reactive power charges on import supplier that should be allocated to the export supplier as well as distorted Duos charges.
2.	Do you believe this issue should be resolved within the BSC or through DUoS charging? Please give rationale.	BSC / DUoS	Depends on the materiality.
3.	Do you believe that new Metering Equipment should be used to facilitate new arrangements for metering of and responsibility for Reactive Power? Please give rationale.	Yes / No	Yes

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Q	Question	Response	Rationale
4.	Do you believe that the Parties involved should be given the option to agree arrangements for the responsibility for Reactive Power flows at the boundary point? Please give rationale.	Yes / No	No. Needs to be prescriptive so as not to disadvantage small suppliers
5.	If Parties are given the option to agree arrangements, do you believe there should be default arrangements for responsibility for Reactive Power at the boundary point for use in the event that parties cannot reach agreement? Please give rationale.	Yes / No	Yes – see answer to Q4
6.	If default arrangements are specified, do you believe that for existing shared sites and Meters they should be the existing arrangements? Please give rationale.	Yes / No	No – not working at the moment
7.	If default arrangements are specified, do you believe that for new shared sites and Meters they should be the arrangements described in section 2 of the consultation document? Please give rationale.	Yes / No	Yes
8.	Where do you believe the details of any default arrangement should sit? Please give rationale.	CoP / MOCoPA / Elsewhere (please state)	BSC/CoP
9.	Are there any impacts of moving to the suggested solution that are not identified in the consultation document? Please give details.	Yes / No	No

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Q	Question	Response	Rationale
10.	Do you believe there are any other solutions to this issue that have not been identified and that should be considered? Please give rationale.	Yes / No	No
11.	Are there any further comments on Issue 24 or the proposed solution that you wish to make?	Yes / No	No

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ISSUE 24 ASSESSMENT PROCEDURE CONSULTATION QUESTIONS

BSC Parties ("Parties") and other interested parties are invited to respond to this consultation expressing their views or provide any further evidence on any of the matters contained within the consultation document. In particular views are sought in respect of the following questions. Parties are invited to supply the rationale for their responses.

Respondent:	*Tom Chevalier*
Company Name:	*Power Data Associates*
No. of BSC Parties Represented	*Consultant to the Association of Meter Operators*
Parties Represented	
No. of Non BSC Parties Represented (e.g. Agents)	*14 MOAs*
Non Parties represented	*Majority of active Accredited Meter Operators*
Role of Respondent	*Party Agent*
Does this response contain confidential information?	*No*

Q	Question	Response	Rationale
1.	Do you believe that the current drafting of the Code causes an issue in relation to the metering of Reactive Power flows, as described in section 1 of the consultation document? Please give rationale.	Yes	The proposal changes the requirements for metering under the BSC. The current drafting has resulted in the current metering & data collection arrangements apparently adequately meeting the Parties business needs (from 1990 to date) until the raising of this issue.
2.	Do you believe this issue should be resolved within the BSC or through DUoS charging? Please give rationale.	DUoS	The requirements of the DUoS charging are apparently changing, therefore if the DUoS requirements change then the metering arrangements within the BSC will need change. The Issue 24 report does not make it clear if this change is a requirement by all LDSOs or just some, nor whether these revised metering arrangements apply in all import/export situations. If the LDSO can achieve suitable billing arrangements without changes to the BSC & all export metering arrangements then 'no change' is the least cost solution to the industry.

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Q	Question	Response	Rationale
3.	Do you believe that new Metering Equipment should be used to facilitate new arrangements for metering of and responsibility for Reactive Power? Please give rationale.	Yes / No	Keep it simple. It is clear from everyone I have spoken to that they have a different understanding of the issue, solution and implications. This is concerning as some responses that I have received (including my own initial view) was this had no impact on the physical metering. My current understanding is that it does, with many of the existing metering installations not being capable of simple reprogramming to achieve the requirement, but requiring a complete meter change. Where a meter change is required, the Meter Operator would normally expect payment from the Supplier.
4.	Do you believe that the Parties involved should be given the option to agree arrangements for the responsibility for Reactive Power flows at the boundary point? Please give rationale.	Yes / No	Keep it simple. It is clear from everyone I have spoken to that they have a different understanding of the issue, solution and implications. This is concerning as some responses that I have received (including my own initial view) was this had no impact on the physical metering. My current understanding is that it does, with many of the existing metering installations not being capable of simple reprogramming to achieve the requirement, but requiring a complete meter change. Where a meter change is required the Meter Operator would normally expect payment from the Supplier.
5.	If Parties are given the option to agree arrangements, do you believe there should be default arrangements for responsibility for Reactive Power at the boundary point for use in the event that parties cannot reach agreement? Please give rationale.	Yes / No	Keep it simple – agree the requirement, clearly define it. Suppliers are not good at agreeing optional solutions, also a change of supplier should not result in a change of metering arrangement.
6.	If default arrangements are specified, do you believe that for existing shared sites and Meters they should be the existing arrangements? Please give rationale.	Yes / No	In the majority of cases the same supplier is responsible for the import & export, therefore the driver comes from a minority of sites. Even if the BSC is changed to amend the requirement in the metering CoPs, these are not retrospective so the new arrangements would apply to new installations. Any retrospective changes would be initiated by the supplier arranging for the Meter Operator to change the metering arrangement

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Q	Question	Response	Rationale
7.	If default arrangements are specified, do you believe that for new shared sites and Meters they should be the arrangements described in section 2 of the consultation document? Please give rationale.	Yes / No	It adds a further two channels of data to be distributed around the industry, but if the cost benefit meets the business needs then a simple consistent solution should be applied.
8.	Where do you believe the details of any default arrangement should sit? Please give rationale.	CoP / MRA/ BSCPs / DUoS – Connection Agreement(please state)	MoCOPA is not the appropriate location, it is primarily a safety and operational document, not a meter configuration document. The Metering CoPs are the logical place, together with the metering, LDSO & data collection BSCPs. The metering sections (Annex C) of the MRA would need to describe these metering configurations. To be explicit the MRA DTC may need to have two additional codes to differentiate between the current AI, AE, RI (while importing active energy) & RE (while importing active energy) with the new measurement codes of "RI" (while exporting active energy) and "RE" (while exporting active energy) The DUoS agreement should explicitly define the metering arrangement required in each scenario.
9.	Are there any impacts of moving to the suggested solution that are not identified in the consultation document? Please give details.	Yes	Many of the existing installed meters are not thought to be able to reconfigured to make this measurement, which may lead to the costs of meter changes. One substantial MOA does not believe any of their current meter stock can be reconfigured, so a new meter type would need to be identified, procured, trained to staff and installed – the cost benefit needs to be very sound. It is likely that there will be system changes to Meter Operator, Data Collector and Supplier systems to accommodate the additional measurement quantities If the metering equipment is set up as standard to the 6 measurement quantities proposed, but he export MPAN is not traded in settlement (too small to bother) it means that the reactive energy at the time of export is also not measured/collected. Whereas currently this reactive energy would be included with the RI & RE collected with the import active energy consumption. Will this reduce DUoS billing?

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Q	Question	Response	Rationale
10.	Do you believe there are any other solutions to this issue that have not been identified and that should be considered? Please give rationale.	Yes / No	The LDSO to use the four streams of data to apply appropriate DUoS charges to the two suppliers as they have agreed in the DUoS agreement The LDSO already gets the four channels of data albeit on two different MPANs so as long as suitable changes could be made to their billing arrangements this could be done on a site by site basis without impacting settlements or any other party. There may have to be some assumption or proportioning of reactive energy in time period of both import & export active energy, but this may be a substantially lower impact solution. Under current arrangements the 'export supplier' will not see the reactive data to which he is being billed, however it would be possible for the HHDC to provide this identical reactive data to both suppliers by suitable amendment of the MTD 'omit' flags. This would not require any system changes other than configuration changes of which channels are sent (or not omitted) to which party.
11.	Are there any further comments on Issue 24 or the proposed solution that you wish to make?	Yes / No	The Metering CoPs only define export and import as engineering based documents originating in 1989/90, the differences between a Licensed Generator and a Licensed Except Generator are trading concepts within the BSC. It would be difficult to see a different metering arrangement being defined in the Meter CoPs dependent upon the trading that that generator was subject to at that time – these things tend to change more frequently than the metering equipment at a site! The many import only sites that have 'lead' data measured, collected and transmitted to Supplier & LDSO is completely redundant, if reviewing the DUoS billing requirements then perhaps this requirement could be removed from SVA import only metering systems. I would also suggested that some MOA representatives are included in the future discussions regarding this issue.

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