

Change Proposal Circular

To	BSC Change Administrators (BCAs)/ Party Agent Change Administrators (PACAs)
No.	CPC00636
Purpose	Response Requested
From	Change Delivery
Date	06 June 2008

Impact Assessment of P224 'Reactive Power Flows Associated with Exemptable Generating Plant'

The purpose of this Impact Assessment is twofold:

- A. To determine any costs and impacts of the Proposed Modification for Parties and Party Agents, and to establish any implementation timescales required by Parties and Party Agents for P224. If Parties submit confidential information regarding implementation costs, please clearly indicate this as such. The Group are also seeking early views on whether a volume threshold should be applied to the P224 solution; and
- B. To request information to enable the Group to analyse the scale of the issue identified by P224 and quantify the cost-benefit of the Proposed Modification. It is anticipated that Distributors and Suppliers are best placed to provide such information, but all respondents are invited to supply any information they consider relevant.

Proposed Modification

Proposed Modification P224 seeks to revise the Code to allow Reactive Power volumes to be allocated to the Party responsible for the associated flow of Active Power. The aim is to resolve anomalies in the allocation of Reactive Power flows where a Supplier and Exemptable Generating Plant (such as embedded wind powered generators) share a site with a common metered Boundary Point. At present the Supplier responsible for Active Import is held responsible for some Reactive Power flows caused by operation of the Exemptable Generating Plant, which are assigned to the Import MSID of such shared Import/Export sites.

This issue does not directly affect Settlement but can materially impact Distributors' ability to implement appropriate Distribution Use of System (DUoS) charging. P224 would allow Reactive Power to be more appropriately allocated in relation to these shared sites. The extra data available would allow Distributors to improve their DUoS charging. Although the Modification Proposal considers the issue in relation to Supplier Volume Allocation, the Modification Group is ensuring any Central Volume Allocation issues are assessed.

Impact Assessment Requirements

Implementation of the Proposed Modification would be likely to impact **HHDCs**, due to the need to process data from reconfigured meter registers and issue modified information relating to the Export Party of shared sites via DTN data flows. Note however that no change to data flow structures is proposed.

There is a potential impact on **MOAs** due to reconfiguration of meter registers and meter software upgrades to facilitate the P224 solution. Note that the Proposed Modification is not retrospective. Impact in relation to new shared sites should be minimal, as they would be expected to be compliant; MOA impact would mainly relate to existing shared sites that may be re-registered at the request of a Supplier associated with such a site.

It is anticipated that the impact of the Proposed Modification would be primarily to sites registered in SVA. However, there is a potential for CVA impact, which could affect the **CDCA**.

Following implementation of the Proposed Modification, it is anticipated that **Distributors** would modify their charging processes to bill more accurately due to the revised allocation of Reactive Power flows and new metered information available. Consequentially, **Suppliers, Licence Exemptable Generators** and **Generators** would potentially be impacted by the effect of new charging processes on their DUoS bills.

Parties and Party Agents are requested to review the attached P224 Requirement Specification and respond to the questions included in the response form attached to this circular. Responses are required by **5.00pm on Wednesday 18 June 2008**.

Please let me know as soon as possible if you are unable to meet this deadline, as it may not be possible for the Modification Group to consider late responses. No response to this circular will be taken to mean that your organisation is not impacted by the proposed changes.

For more information on this circular, please contact Dean Riddell on 0207 380 4366 or email dean.riddell@elexon.co.uk.

Dean Riddell
Change Delivery

PLEASE RETURN RESPONSES by 5.00pm on Wednesday 18 June 2008 to:

ELEXON Modifications
4th Floor
350 Euston Road
LONDON
NW1 3AW

Email: modifications@elexon.co.uk

Tel: 020 7380 4361

CPC00636: Impact Assessment of P224

Organisation:	British Energy Generation Limited; British Energy Direct Limited; British Energy Power & Energy Trading Limited; Eggborough Power Limited		
Capacity Organisation operates in (e.g. Supplier, HHDC, etc.)	Supplier; Generator; Trader; CVA MOA		
Assessor Name	Jonathan Perks		
Contact Name (if different to Assessor)		BCA/PACA:	BCA
Contact email:	jonathan.perks@british-energy.com	Phone no:	01452 653371

Please provide responses to the following questions:

Section A – Impact of the P224 Proposed Modification

General Questions

Question 1	Would Proposed Modification P224, as outlined in the attached Requirements Specification, impact your Organisation?
Answer 1	Yes

Question 2	If impacted by the Proposed Modification, please provide a description of the impact, costs and required implementation timescales (from the point of Authority approval) for your organisation.
Answer 2	The specific impact and associated costs are difficult to estimate at this time. We would seek at least 3 months notice for implementation of this change to ensure systems and processes can handle the new arrangements.

Question 3	Do you agree with the Modification Group's decision that a materiality threshold should not form part of the P224 solution? (i.e. the P224 provisions would apply to all Half Hourly settled Import/Export sites, including those below the 100kW demand threshold and 30kW microgeneration threshold) <ul style="list-style-type: none">• If you believe that there should be a materiality threshold, what value do you believe would be appropriate, and why?• Do you believe there are any benefits or impacts of not including a materiality threshold that the Group has not identified? Please specify.• Do you believe there are any benefits or impacts of including a materiality threshold that the Group has not identified? Please specify.
Answer 3	Agree - a consistent approach for all HH metering systems is desirable.

Question 4	Are there any potential P224 Alternative solutions that you believe the Group should consider? Please give details and justification.
Answer 4	No

Distributor Specific Questions

Question 5	<p>If Proposed Modification P224 is implemented, what would the impact be on your billing procedures?</p> <ul style="list-style-type: none"> • Would you change your billing procedures? • What would be the impact on your billing procedures? • What would be the cost of changing your billing procedures?
Answer 5	N/A

Question 6	<p>If Proposed Modification P224 is implemented, what would be the impact on any billing workarounds you use?</p> <ul style="list-style-type: none"> • Would you discontinue your workarounds? • What estimated cost saving would you expect due to discontinuing workarounds?
Answer 6	N/A

HHDC Specific Questions

Question 7	<p>What impact would Proposed Modification P224 have on your organisation as HHDC? Specific solution aspects for consideration are:</p> <ul style="list-style-type: none"> • Reconfiguration of meter registers by the MOA and receipt of notification of this via the D0268; • Allocation of the six meter register quantities to the appropriate Party, particularly allocation of three quantities to the Export Party; and • Production of amended D0036 and D0275 flows <p>See sections 3.3 and 3.4 for further details.</p>
Answer 7	N/A

MOA Specific Questions

Question 8	<p>What specific impact would Proposed Modification P224, as outlined in the attached Requirements Specification, have on your organisation as an MOA?</p>
Answer 8	N/A

Section B – Evidence of the P224 Issue (see Requirements Specification section 1.2 for further details)

General Questions

Question 9	<p>Do the issues identified by P224 have a material impact on your organisation at present, and do you anticipate that the impact will increase in future?</p> <p>Please provide a quantified or approximate indication of the present and expected materiality of impact on your organisation (and the timescales of any changes).</p> <p>Note that any information provided can be treated as confidential upon request.</p>
Answer 9	<p>This is difficult to quantify. Whilst we have only been registered supplier for a small number of shared metering systems in the past, this number may increase in the future. We have no recent experience of disputes surrounding payment for reactive power charges.</p>

Distributor Specific Questions

Question 10	What is the total number of shared Import/Export sites connected to your organisation's network?
Answer 10	N/A

Question 11	<p>What is the number of Import/Export sites connected to your organisation's network that have a related material issue due to inappropriate allocation of volumes?</p> <p>(note that a 'material issue' could be indicated by the use of a workaround or existence of a dispute with the Supplier, or could have been recognised as material for some other reason)</p>
Answer 12	N/A

Question 12	<p>What methods, if any, do you currently use to overcome or mitigate current issues caused by inappropriate allocation of Reactive Power?</p> <p>Please provide details of any workaround solutions adopted for impacted sites.</p> <ul style="list-style-type: none"> • How do your workaround processes work? • How effective are the workarounds and what limitations do they have? (e.g. accuracy of charging, omission/absorption of charges)? • What improvement in charging processes would you anticipate if P224 is implemented? (please quantify if possible)
Answer 12	N/A

Supplier Specific Questions

Question 13	Other than those identified by P224 (e.g. involvement in disputes over Reactive Power charges), are there any further material issues for your organisation as a Supplier due to the issue of misallocated Reactive Power? Please Specify.
Answer 13	No

Question 14	<p>Has your organisation experienced any material issues relating to inappropriate allocation of Reactive Power and DUoS charging as described by P224?</p> <ul style="list-style-type: none"> • How many material issues are you currently experiencing? • What is the estimated cost of the material issues? • What is the estimated cost of any other impacts of the issue identified by P224? (please provide details of the impacts)
Answer 14	No

Question 15	<p>What savings would you expect if Proposed Modification P224 is implemented?</p> <ul style="list-style-type: none"> • What saving would you expect due to the removal of the material issues? (as described in question 6 above) • What saving would you expect due to any other benefit of the Proposed solution? (please provide details of the benefit)
Answer 15	Unable to quantify at this time.

Change Proposal Circular

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No.	CPC00636
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Impact Assessment of P224 'Reactive Power Flows Associated with Exemptable Generating Plant'

The purpose of this Impact Assessment is twofold:

- A. To determine any costs and impacts of the Proposed Modification for Parties and Party Agents, and to establish any implementation timescales required by Parties and Party Agents for P224. If Parties submit confidential information regarding implementation costs, please clearly indicate this as such. The Group are also seeking early views on whether a volume threshold should be applied to the P224 solution; and
- B. To request information to enable the Group to analyse the scale of the issue identified by P224 and quantify the cost-benefit of the Proposed Modification. It is anticipated that Distributors and Suppliers are best placed to provide such information, but all respondents are invited to supply any information they consider relevant.

Proposed Modification

Proposed Modification P224 seeks to revise the Code to allow Reactive Power volumes to be allocated to the Party responsible for the associated flow of Active Power. The aim is to resolve anomalies in the allocation of Reactive Power flows where a Supplier and Exemptable Generating Plant (such as embedded wind powered generators) share a site with a common metered Boundary Point. At present the Supplier responsible for Active Import is held responsible for some Reactive Power flows caused by operation of the Exemptable Generating Plant, which are assigned to the Import MSID of such shared Import/Export sites.

This issue does not directly affect Settlement but can materially impact Distributors' ability to implement appropriate Distribution Use of System (DUoS) charging. P224 would allow Reactive Power to be more appropriately allocated in relation to these shared sites. The extra data available would allow Distributors to improve their DUoS charging. Although the Modification Proposal considers the issue in relation to Supplier Volume Allocation, the Modification Group is ensuring any Central Volume Allocation issues are assessed.

Impact Assessment Requirements

Implementation of the Proposed Modification would be likely to impact **HHDCs**, due to the need to process data from reconfigured meter registers and issue modified information relating to the Export Party of shared sites via DTN data flows. Note however that no change to data flow structures is proposed.

There is a potential impact on **MOAs** due to reconfiguration of meter registers and meter software upgrades to facilitate the P224 solution. Note that the Proposed Modification is not retrospective. Impact in relation to new shared sites should be minimal, as they would be expected to be compliant; MOA impact would mainly relate to existing shared sites that may be re-registered at the request of a Supplier associated with such a site.

It is anticipated that the impact of the Proposed Modification would be primarily to sites registered in SVA. However, there is a potential for CVA impact, which could affect the **CDCA**.

Following implementation of the Proposed Modification, it is anticipated that **Distributors** would modify their charging processes to bill more accurately due to the revised allocation of Reactive Power flows and new metered information available. Consequentially, **Suppliers, Licence Exemptable Generators** and **Generators** would potentially be impacted by the effect of new charging processes on their DUoS bills.

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Change Delivery

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350 Euston Road
LONDON
NW1 3AW

Email: modifications@elexon.co.uk

Tel: 020 7380 4361

CPC00636: Impact Assessment of P224

Organisation:	CE Electricuk		
Capacity Organisation operates in (e.g. Supplier, HHDC, etc.)	LDSO (NEEB and YELG)		
Assessor Name	Emma Ward		
Contact Name (if different to Assessor)		BCA/PACA:	
Contact email:	Emma.ward@ce-electricuk.com	Phone no:	01 913877153

Please provide responses to the following questions:

Section A – Impact of the P224 Proposed Modification

General Questions

Question 1	Would Proposed Modification P224, as outlined in the attached Requirements Specification, impact your Organisation?
Answer 1	No. Currently we do not charge for reactive power therefore this change proposal would not impact our organisation.
Question 2	If impacted by the Proposed Modification, please provide a description of the impact, costs and required implementation timescales (from the point of Authority approval) for your organisation.
Answer 2	N/A
Question 3	<p>Do you agree with the Modification Group's decision that a materiality threshold should not form part of the P224 solution? (i.e. the P224 provisions would apply to all Half Hourly settled Import/Export sites, including those below the 100kW demand threshold and 30kW microgeneration threshold)</p> <ul style="list-style-type: none"> If you believe that there should be a materiality threshold, what value do you believe would be appropriate, and why? Do you believe there are any benefits or impacts of not including a materiality threshold that the Group has not identified? Please specify. Do you believe there are any benefits or impacts of including a materiality threshold that the Group has not identified? Please specify.
Answer 3	We agree that there should be no materiality threshold within this solution; we have no additional benefits or impacts to add at present.
Question 4	Are there any potential P224 Alternative solutions that you believe the Group should consider? Please give details and justification.
Answer 4	<p>A suggested point for clarification is the diagram on page 10. The diagram illustrates that the reactive power could be provided by both MSIDs which would defeat the purpose of this change proposal by duplicating the allocation of reactive energy rather than correctly allocating the energy.</p> <p>We suggest inserting at the end of the paragraph beginning 'It is not proposed that any new meter register quantities are introduced...' words to the effect of 'Reactive Power, reflected by RE and RI flows, shall be associated with one and only one Active Power flow. This allocation shall be agreed between the relevant Suppliers, and default to the AE flow'</p> <p>A suggested additional consideration on this topic is the charging of reactive export power as the proposal seems to focus on reactive import charging. We note (and agree with) the statement that 'RE volumes are not assigned to the Export Party due to general industry practice...'. We suggest it be clarified that RE flows could follow the same basis as RI flows. We submit that the additional words proposed above also cover this point.</p>

Distributor Specific Questions

Question 5	<p>If Proposed Modification P224 is implemented, what would the impact be on your billing procedures?</p> <ul style="list-style-type: none">• Would you change your billing procedures?• What would be the impact on your billing procedures?• What would be the cost of changing your billing procedures?
Answer 5	<p>If this change proposal was implemented it would not impact our billing procedures as we do not currently charge for reactive power.</p>

Question 6	<p>If Proposed Modification P224 is implemented, what would be the impact on any billing workarounds you use?</p> <ul style="list-style-type: none">• Would you discontinue your workarounds?• What estimated cost saving would you expect due to discontinuing workarounds?
Answer 6	<p>Again, if this change proposal was implemented it would not impact our billing workarounds as we do not currently charge for reactive power.</p>

HHDC Specific Questions

Question 7	<p>What impact would Proposed Modification P224 have on your organisation as HHDC? Specific solution aspects for consideration are:</p> <ul style="list-style-type: none">• Reconfiguration of meter registers by the MOA and receipt of notification of this via the D0268;• Allocation of the six meter register quantities to the appropriate Party, particularly allocation of three quantities to the Export Party; and• Production of amended D0036 and D0275 flows <p>See sections 3.3 and 3.4 for further details.</p>
Answer 7	

MOA Specific Questions

Question 8	<p>What specific impact would Proposed Modification P224, as outlined in the attached Requirements Specification, have on your organisation as an MOA?</p>
Answer 8	

Section B – Evidence of the P224 Issue (see Requirements Specification section 1.2 for further details)

General Questions

Question 9	<p>Do the issues identified by P224 have a material impact on your organisation at present, and do you anticipate that the impact will increase in future?</p> <p>Please provide a quantified or approximate indication of the present and expected materiality of impact on your organisation (and the timescales of any changes).</p> <p>Note that any information provided can be treated as confidential upon request.</p>
Answer 9	<p>There is no material impact of P224 at present. In future this change proposal will assist with our reactive power charging by specifically assisting with implementation of our long term changing methodology.</p>

Distributor Specific Questions

Question 10	<p>What is the total number of shared Import/Export sites connected to your organisation's network?</p>
Answer 10	<p>Appoximatley 192</p>

Question 11	<p>What is the number of Import/Export sites connected to your organisation's network that have a related material issue due to inappropriate allocation of volumes?</p> <p>(note that a 'material issue' could be indicated by the use of a workaround or existence of a dispute with the Supplier, or could have been recognised as material for some other reason)</p>
Answer 12	<p>Zero. Currently we have no workarounds or disputes in place as we do not charge for reactive power.</p>

Question 12	<p>What methods, if any, do you currently use to overcome or mitigate current issues caused by inappropriate allocation of Reactive Power?</p> <p>Please provide details of any workaround solutions adopted for impacted sites.</p> <ul style="list-style-type: none"> • How do your workaround processes work? • How effective are the workarounds and what limitations do they have? (e.g. accuracy of charging, omission/absorption of charges)? • What improvement in charging processes would you anticipate if P224 is implemented? (please quantify if possible)
Answer 12	<p>Currently we have no methods in place as we do not charge for reactive power.</p>

Supplier Specific Questions

Question 13	<p>Other than those identified by P224 (e.g. involvement in disputes over Reactive Power charges), are there any further material issues for your organisation as a Supplier due to the issue of misallocated Reactive Power? Please Specify.</p>
Answer 13	

Question 14	<p>Has your organisation experienced any material issues relating to inappropriate allocation of Reactive Power and DUoS charging as described by P224?</p> <ul style="list-style-type: none"> • How many material issues are you currently experiencing? • What is the estimated cost of the material issues? • What is the estimated cost of any other impacts of the issue identified by P224? (please provide details of the impacts)
Answer 14	

Question 15	<p>What savings would you expect if Proposed Modification P224 is implemented?</p> <ul style="list-style-type: none"> • What saving would you expect due to the removal of the material issues? (as described in question 6 above) • What saving would you expect due to any other benefit of the Proposed solution? (please provide details of the benefit)
Answer 15	

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Proposed Modification

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This issue does not directly affect Settlement but can materially impact Distributors' ability to implement appropriate Distribution Use of System (DUoS) charging. P224 would allow Reactive Power to be more appropriately allocated in relation to these shared sites. The extra data available would allow Distributors to improve their DUoS charging. Although the Modification Proposal considers the issue in relation to Supplier Volume Allocation, the Modification Group is ensuring any Central Volume Allocation issues are assessed.

Impact Assessment Requirements

Implementation of the Proposed Modification would be likely to impact **HHDCs**, due to the need to process data from reconfigured meter registers and issue modified information relating to the Export Party of shared sites via DTN data flows. Note however that no change to data flow structures is proposed.

There is a potential impact on **MOAs** due to reconfiguration of meter registers and meter software upgrades to facilitate the P224 solution. Note that the Proposed Modification is not retrospective. Impact in relation to new shared sites should be minimal, as they would be expected to be compliant; MOA impact would mainly relate to existing shared sites that may be re-registered at the request of a Supplier associated with such a site.

It is anticipated that the impact of the Proposed Modification would be primarily to sites registered in SVA. However, there is a potential for CVA impact, which could affect the **CDCA**.

Following implementation of the Proposed Modification, it is anticipated that **Distributors** would modify their charging processes to bill more accurately due to the revised allocation of Reactive Power flows and new metered information available. Consequentially, **Suppliers, Licence Exemptable Generators** and **Generators** would potentially be impacted by the effect of new charging processes on their DUoS bills.

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Organisation:	E.ON UK Energy Services Limited		
Capacity Organisation operates in (e.g. Supplier, HHDC, etc.)	HHDC HHDA HHMOA NHHDC NHHDA NHH MOA		
Assessor Name	Alastair Barnsley		
Contact Name (if different to Assessor)		PACA:	
Contact email:	Alastair.barnsley@eon-uk.com	Phone no:	02476 186886

Please provide responses to the following questions:

Section A – Impact of the P224 Proposed Modification

General Questions

Question 1	Would Proposed Modification P224, as outlined in the attached Requirements Specification, impact your Organisation?
Answer 1	No,. All registers set up on the meter are recorded by the DC

Question 2	If impacted by the Proposed Modification, please provide a description of the impact, costs and required implementation timescales (from the point of Authority approval) for your organisation.
Answer 2	None

Question 3	Do you agree with the Modification Group's decision that a materiality threshold should not form part of the P224 solution? (i.e. the P224 provisions would apply to all Half Hourly settled Import/Export sites, including those below the 100kW demand threshold and 30kW microgeneration threshold) <ul style="list-style-type: none">• If you believe that there should be a materiality threshold, what value do you believe would be appropriate, and why?• Do you believe there are any benefits or impacts of not including a materiality threshold that the Group has not identified? Please specify.• Do you believe there are any benefits or impacts of including a materiality threshold that the Group has not identified? Please specify.
Answer 3	

Question 4	Are there any potential P224 Alternative solutions that you believe the Group should consider? Please give details and justification.
Answer 4	No

Distributor Specific Questions

Question 5	If Proposed Modification P224 is implemented, what would the impact be on your billing procedures? <ul style="list-style-type: none">• Would you change your billing procedures?• What would be the impact on your billing procedures?• What would be the cost of changing your billing procedures?
Answer 5	

Question 6	<p>If Proposed Modification P224 is implemented, what would be the impact on any billing workarounds you use?</p> <ul style="list-style-type: none"> • Would you discontinue your workarounds? • What estimated cost saving would you expect due to discontinuing workarounds?
Answer 6	

HHDC Specific Questions

Question 7	<p>What impact would Proposed Modification P224 have on your organisation as HHDC? Specific solution aspects for consideration are:</p> <ul style="list-style-type: none"> • Reconfiguration of meter registers by the MOA and receipt of notification of this via the D0268; • Allocation of the six meter register quantities to the appropriate Party, particularly allocation of three quantities to the Export Party; and • Production of amended D0036 and D0275 flows <p>See sections 3.3 and 3.4 for further details.</p>
Answer 7	This would not impact our activities as a DC all registers are recorded and allocated as required currently.

MOA Specific Questions

Question 8	What specific impact would Proposed Modification P224, as outlined in the attached Requirements Specification, have on your organisation as an MOA?
Answer 8	Registers would always be set up as requested as at present.

Section B – Evidence of the P224 Issue (see Requirements Specification section 1.2 for further details)

General Questions

Question 9	<p>Do the issues identified by P224 have a material impact on your organisation at present, and do you anticipate that the impact will increase in future?</p> <p>Please provide a quantified or approximate indication of the present and expected materiality of impact on your organisation (and the timescales of any changes). Note that any information provided can be treated as confidential upon request.</p>
Answer 9	

Distributor Specific Questions

Question 10	What is the total number of shared Import/Export sites connected to your organisation's network?
Answer 10	

Question 11	<p>What is the number of Import/Export sites connected to your organisation's network that have a related material issue due to inappropriate allocation of volumes?</p> <p>(note that a 'material issue' could be indicated by the use of a workaround or existence of a dispute with the Supplier, or could have been recognised as material for some other reason)</p>
Answer 12	

Question 12	<p>What methods, if any, do you currently use to overcome or mitigate current issues caused by inappropriate allocation of Reactive Power?</p> <p>Please provide details of any workaround solutions adopted for impacted sites.</p> <ul style="list-style-type: none"> • How do your workaround processes work? • How effective are the workarounds and what limitations do they have? (e.g. accuracy of charging, omission/absorption of charges)? • What improvement in charging processes would you anticipate if P224 is implemented? (please quantify if possible)
Answer 12	

Supplier Specific Questions

Question 13	Other than those identified by P224 (e.g. involvement in disputes over Reactive Power charges), are there any further material issues for your organisation as a Supplier due to the issue of misallocated Reactive Power? Please Specify.
Answer 13	

Question 14	<p>Has your organisation experienced any material issues relating to inappropriate allocation of Reactive Power and DUoS charging as described by P224?</p> <ul style="list-style-type: none"> • How many material issues are you currently experiencing? • What is the estimated cost of the material issues? • What is the estimated cost of any other impacts of the issue identified by P224? (please provide details of the impacts)
Answer 14	

Question 15	<p>What savings would you expect if Proposed Modification P224 is implemented?</p> <ul style="list-style-type: none"> • What saving would you expect due to the removal of the material issues? (as described in question 6 above) • What saving would you expect due to any other benefit of the Proposed solution? (please provide details of the benefit)
Answer 15	

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Proposed Modification

Proposed Modification P224 seeks to revise the Code to allow Reactive Power volumes to be allocated to the Party responsible for the associated flow of Active Power. The aim is to resolve anomalies in the allocation of Reactive Power flows where a Supplier and Exemptable Generating Plant (such as embedded wind powered generators) share a site with a common metered Boundary Point. At present the Supplier responsible for Active Import is held responsible for some Reactive Power flows caused by operation of the Exemptable Generating Plant, which are assigned to the Import MSID of such shared Import/Export sites.

This issue does not directly affect Settlement but can materially impact Distributors' ability to implement appropriate Distribution Use of System (DUoS) charging. P224 would allow Reactive Power to be more appropriately allocated in relation to these shared sites. The extra data available would allow Distributors to improve their DUoS charging. Although the Modification Proposal considers the issue in relation to Supplier Volume Allocation, the Modification Group is ensuring any Central Volume Allocation issues are assessed.

Impact Assessment Requirements

Implementation of the Proposed Modification would be likely to impact **HHDCs**, due to the need to process data from reconfigured meter registers and issue modified information relating to the Export Party of shared sites via DTN data flows. Note however that no change to data flow structures is proposed.

There is a potential impact on **MOAs** due to reconfiguration of meter registers and meter software upgrades to facilitate the P224 solution. Note that the Proposed Modification is not retrospective. Impact in relation to new shared sites should be minimal, as they would be expected to be compliant; MOA impact would mainly relate to existing shared sites that may be re-registered at the request of a Supplier associated with such a site.

It is anticipated that the impact of the Proposed Modification would be primarily to sites registered in SVA. However, there is a potential for CVA impact, which could affect the **CDCA**.

Following implementation of the Proposed Modification, it is anticipated that **Distributors** would modify their charging processes to bill more accurately due to the revised allocation of Reactive Power flows and new metered information available. Consequentially, **Suppliers, Licence Exemptable Generators** and **Generators** would potentially be impacted by the effect of new charging processes on their DUoS bills.

Parties and Party Agents are requested to review the attached P224 Requirement Specification and respond to the questions included in the response form attached to this circular. Responses are required by **5.00pm on Wednesday 18 June 2008**.

Please let me know as soon as possible if you are unable to meet this deadline, as it may not be possible for the Modification Group to consider late responses. No response to this circular will be taken to mean that your organisation is not impacted by the proposed changes.

For more information on this circular, please contact Dean Riddell on 0207 380 4366 or email dean.riddell@elexon.co.uk.

Dean Riddell
Change Delivery

PLEASE RETURN RESPONSES by 5.00pm on Wednesday 18 June 2008 to:

ELEXON Modifications
4th Floor
350 Euston Road
LONDON
NW1 3AW

Email: modifications@elexon.co.uk

Tel: 020 7380 4361

CPC00636: Impact Assessment of P224

Organisation:	EDF Energy Networks		
Capacity Organisation operates in (e.g. Supplier, HHDC, etc.)	LDSO		
Assessor Name	Hazel Cotman		
Contact Name (if different to Assessor)		BCA/PACA:	BCA
Contact email:	Hazel.cotman@edfenergy.com	Phone no:	01293 657946

Please provide responses to the following questions:

Section A – Impact of the P224 Proposed Modification

General Questions

Question 1	Would Proposed Modification P224, as outlined in the attached Requirements Specification, impact your Organisation?
Answer 1	Yes

Question 2	If impacted by the Proposed Modification, please provide a description of the impact, costs and required implementation timescales (from the point of Authority approval) for your organisation.
Answer 2	We do not anticipate any changes to be able to accept assignment of reactive import channels to export MPANs. Our billings systems existing mechanism to assign reactive channels (either reactive import or reactive export) to export MPANs exists according to the incoming D0268 dataflows will function correctly without change.

Question 3	Do you agree with the Modification Group’s decision that a materiality threshold should not form part of the P224 solution? (i.e. the P224 provisions would apply to all Half Hourly settled Import/Export sites, including those below the 100kW demand threshold and 30kW microgeneration threshold) <ul style="list-style-type: none"> If you believe that there should be a materiality threshold, what value do you believe would be appropriate, and why? Do you believe there are any benefits or impacts of not including a materiality threshold that the Group has not identified? Please specify. Do you believe there are any benefits or impacts of including a materiality threshold that the Group has not identified? Please specify.
Answer 3	We agreed that the materiality threshold should be set at the level at which the metering functionality requirements provide the relevant active and reactive channels, currently 100kW import and 30kW export.

Question 4	Are there any potential P224 Alternative solutions that you believe the Group should consider? Please give details and justification.
Answer 4	<p>No.</p> <p>Most of the known alternative solutions, i.e. ‘workarounds’, that have been utilised have circumvented the due provision of metering data by Suppliers to cause the reactive data to not be utilised in charge calculation and in a sense were hot-wired solutions to get round deficiencies in the electricity market assignment of power.</p> <p>With the growth of distributed generation in particular and the anticipated need to charge and reward distributed generation for the undesired or desired consumption or production of reactive energy it is important that;</p>

Question 4	Are there any potential P224 Alternative solutions that you believe the Group should consider? Please give details and justification.
	<p>i) the reactive power flows related to instances of generation can be assigned and tracked against the export MPAN to provide the foundation for contractual ancillary services, and</p> <p>ii) Provide improved allocation so as to better facilitate active networks with material distributed generation penetrations.</p> <p>The use of alternative solutions that we are aware of set out to ignore, strip out or filter correctly presented data and such solutions which arguably removing one of the symptoms of misallocation of reactive energy flows does not address or facilitate the more fundamental support of the active distribution rich distribution network environment.</p>

Distributor Specific Questions

Question 5	If Proposed Modification P224 is implemented, what would the impact be on your billing procedures? <ul style="list-style-type: none"> • Would you change your billing procedures? • What would be the impact on your billing procedures? • What would be the cost of changing your billing procedures?
Answer 5	<p>Our billing procedures would remain essentially unchanged.</p> <p>Export MPAN account billing would be adjusted to incorporate reactive channels' data together with the active export channel to more correctly determine export power flow.</p> <p>Cost of change assessed to be approximately £20k but not enough information to derive a detailed requirement yet so this may increase.</p>

Question 6	If Proposed Modification P224 is implemented, what would be the impact on any billing workarounds you use? <ul style="list-style-type: none"> • Would you discontinue your workarounds? • What estimated cost saving would you expect due to discontinuing workarounds?
Answer 6	<p>We do employ workarounds that circumvent the billing on data duly presented.</p>

HHDC Specific Questions

Question 7	<p>What impact would Proposed Modification P224 have on your organisation as HHDC? Specific solution aspects for consideration are:</p> <ul style="list-style-type: none"> • Reconfiguration of meter registers by the MOA and receipt of notification of this via the D0268; • Allocation of the six meter register quantities to the appropriate Party, particularly allocation of three quantities to the Export Party; and • Production of amended D0036 and D0275 flows <p>See sections 3.3 and 3.4 for further details.</p>
Answer 7	N/A

MOA Specific Questions

Question 8	What specific impact would Proposed Modification P224, as outlined in the attached Requirements Specification, have on your organisation as an MOA?
Answer 8	N/A

Section B – Evidence of the P224 Issue (see Requirements Specification section 1.2 for further details)

General Questions

Question 9	<p>Do the issues identified by P224 have a material impact on your organisation at present, and do you anticipate that the impact will increase in future?</p> <p>Please provide a quantified or approximate indication of the present and expected materiality of impact on your organisation (and the timescales of any changes). Note that any information provided can be treated as confidential upon request.</p>
Answer 9	<p>The issue raised by P224 has a material impact on us and is expected to increase with the growth of distributed generation and the increasingly dynamic reactive power flows occurring due to use or production of energy.</p> <p>Furthermore the current basis of allocation prevents the creation of viable platform on which ancillary services for distributed generation output could be based. Such ancillary service contracts might likely be a tri-partite arrangement between distributors, licence exempt Suppliers and their Suppliers and be reliant on obtaining of relevant metering data in support of such contracts. The current allocation of generation caused reactive import to the import Supplier will/does prevent this arrangement being practically conducted.</p>

Distributor Specific Questions

Question 10	What is the total number of shared Import/Export sites connected to your organisation's network?
Answer 10	Approximately 300

Supplier Specific Questions

Question 13	Other than those identified by P224 (e.g. involvement in disputes over Reactive Power charges), are there any further material issues for your organisation as a Supplier due to the issue of misallocated Reactive Power? Please Specify.
Answer 13	N/A
Question 14	<p>Has your organisation experienced any material issues relating to inappropriate allocation of Reactive Power and DUoS charging as described by P224?</p> <ul style="list-style-type: none"> • How many material issues are you currently experiencing? • What is the estimated cost of the material issues? • What is the estimated cost of any other impacts of the issue identified by P224? (please provide details of the impacts)
Answer 14	N/A
Question 15	<p>What savings would you expect if Proposed Modification P224 is implemented?</p> <ul style="list-style-type: none"> • What saving would you expect due to the removal of the material issues? (as described in question 6 above) • What saving would you expect due to any other benefit of the Proposed solution? (please provide details of the benefit)
Answer 15	N/A

Change Proposal Circular

To	BSC Change Administrators (BCAs)/ Party Agent Change Administrators (PACAs)
No.	CPC00636
Purpose	Response Requested
From	Change Delivery
Date	06 June 2008

Impact Assessment of P224 'Reactive Power Flows Associated with Exemptable Generating Plant'

The purpose of this Impact Assessment is twofold:

- A. To determine any costs and impacts of the Proposed Modification for Parties and Party Agents, and to establish any implementation timescales required by Parties and Party Agents for P224. If Parties submit confidential information regarding implementation costs, please clearly indicate this as such. The Group are also seeking early views on whether a volume threshold should be applied to the P224 solution; and
- B. To request information to enable the Group to analyse the scale of the issue identified by P224 and quantify the cost-benefit of the Proposed Modification. It is anticipated that Distributors and Suppliers are best placed to provide such information, but all respondents are invited to supply any information they consider relevant.

Proposed Modification

Proposed Modification P224 seeks to revise the Code to allow Reactive Power volumes to be allocated to the Party responsible for the associated flow of Active Power. The aim is to resolve anomalies in the allocation of Reactive Power flows where a Supplier and Exemptable Generating Plant (such as embedded wind powered generators) share a site with a common metered Boundary Point. At present the Supplier responsible for Active Import is held responsible for some Reactive Power flows caused by operation of the Exemptable Generating Plant, which are assigned to the Import MSID of such shared Import/Export sites.

This issue does not directly affect Settlement but can materially impact Distributors' ability to implement appropriate Distribution Use of System (DUoS) charging. P224 would allow Reactive Power to be more appropriately allocated in relation to these shared sites. The extra data available would allow Distributors to improve their DUoS charging. Although the Modification Proposal considers the issue in relation to Supplier Volume Allocation, the Modification Group is ensuring any Central Volume Allocation issues are assessed.

Impact Assessment Requirements

Implementation of the Proposed Modification would be likely to impact **HHDCs**, due to the need to process data from reconfigured meter registers and issue modified information relating to the Export Party of shared sites via DTN data flows. Note however that no change to data flow structures is proposed.

There is a potential impact on **MOAs** due to reconfiguration of meter registers and meter software upgrades to facilitate the P224 solution. Note that the Proposed Modification is not retrospective. Impact in relation to new shared sites should be minimal, as they would be expected to be compliant; MOA impact would mainly relate to existing shared sites that may be re-registered at the request of a Supplier associated with such a site.

It is anticipated that the impact of the Proposed Modification would be primarily to sites registered in SVA. However, there is a potential for CVA impact, which could affect the **CDCA**.

Following implementation of the Proposed Modification, it is anticipated that **Distributors** would modify their charging processes to bill more accurately due to the revised allocation of Reactive Power flows and new metered information available. Consequentially, **Suppliers, Licence Exemptable Generators** and **Generators** would potentially be impacted by the effect of new charging processes on their DUoS bills.

Parties and Party Agents are requested to review the attached P224 Requirement Specification and respond to the questions included in the response form attached to this circular. Responses are required by **5.00pm on Wednesday 18 June 2008**.

Please let me know as soon as possible if you are unable to meet this deadline, as it may not be possible for the Modification Group to consider late responses. No response to this circular will be taken to mean that your organisation is not impacted by the proposed changes.

For more information on this circular, please contact Dean Riddell on 0207 380 4366 or email dean.riddell@elexon.co.uk.

Dean Riddell
Change Delivery

PLEASE RETURN RESPONSES by 5.00pm on Wednesday 18 June 2008 to:

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4th Floor
350 Euston Road
LONDON
NW1 3AW

Email: modifications@elexon.co.uk

Tel: 020 7380 4361

CPC00636: Impact Assessment of P224

Organisation:	EDF Energy		
Capacity Organisation operates in (e.g. Supplier, HHDC, etc.)	Supplier, NHH Agent and HH MOP		
Assessor Name	Dave Morton		
Contact Name (if different to Assessor)		BCA	
Contact email:	External.Change@EDFenergy.co	Phone no:	0190 328 3465

Please provide responses to the following questions:

Section A – Impact of the P224 Proposed Modification

General Questions

Question 1	Would Proposed Modification P224, as outlined in the attached Requirements Specification, impact your Organisation?
Answer 1	Yes

Question 2	If impacted by the Proposed Modification, please provide a description of the impact, costs and required implementation timescales (from the point of Authority approval) for your organisation.
Answer 2	Impact on DUoS billing processes, tariff generation and meter operations. At present we have no views on costs and timescales for first two issues in final issue this is seen more as a field training issue and would require about two months lead time.

Question 3	Do you agree with the Modification Group's decision that a materiality threshold should not form part of the P224 solution? (i.e. the P224 provisions would apply to all Half Hourly settled Import/Export sites, including those below the 100kW demand threshold and 30kW microgeneration threshold) <ul style="list-style-type: none"> • If you believe that there should be a materiality threshold, what value do you believe would be appropriate, and why? • Do you believe there are any benefits or impacts of not including a materiality threshold that the Group has not identified? Please specify. • Do you believe there are any benefits or impacts of including a materiality threshold that the Group has not identified? Please specify.
Answer 3	Yes – we feel this is simplest approach and ensures a single method of operation. It also removes any ambiguity of approach so should minimise errors in this area.

Question 4	Are there any potential P224 Alternative solutions that you believe the Group should consider? Please give details and justification.
Answer 4	With regard to metering solution we feel that proposed configuration of metering where MPAN that deals with active import has a reactive export register is not required. As it is possible to identify which quadrants relate to reactive export and which to reactive import we feel that these registers should be matched to MPANs that measure active import or export and not crossed over. In this way MPAN that deals with import deals with import only and this is considered to be most relevant method of allocating energy.

Distributor Specific Questions

Question 5	<p>If Proposed Modification P224 is implemented, what would the impact be on your billing procedures?</p> <ul style="list-style-type: none"> • Would you change your billing procedures? • What would be the impact on your billing procedures? • What would be the cost of changing your billing procedures?
Answer 5	

Question 6	<p>If Proposed Modification P224 is implemented, what would be the impact on any billing workarounds you use?</p> <ul style="list-style-type: none"> • Would you discontinue your workarounds? • What estimated cost saving would you expect due to discontinuing workarounds?
Answer 6	

HHDC Specific Questions

Question 7	<p>What impact would Proposed Modification P224 have on your organisation as HHDC? Specific solution aspects for consideration are:</p> <ul style="list-style-type: none"> • Reconfiguration of meter registers by the MOA and receipt of notification of this via the D0268; • Allocation of the six meter register quantities to the appropriate Party, particularly allocation of three quantities to the Export Party; and • Production of amended D0036 and D0275 flows <p>See sections 3.3 and 3.4 for further details.</p>
Answer 7	

MOA Specific Questions

Question 8	<p>What specific impact would Proposed Modification P224, as outlined in the attached Requirements Specification, have on your organisation as an MOA?</p>
Answer 8	<p>We would need to retrain all HH operatives. We would also need to amend current operations as all reactive import is currently assigned to that MPAN where active import is measured. We consider that anything related to import must be measured on that MPAN for clarity.</p>

Section B – Evidence of the P224 Issue (see Requirements Specification section 1.2 for further details)

General Questions

Question 9	<p>Do the issues identified by P224 have a material impact on your organisation at present, and do you anticipate that the impact will increase in future?</p> <p>Please provide a quantified or approximate indication of the present and expected materiality of impact on your organisation (and the timescales of any changes).</p> <p>Note that any information provided can be treated as confidential upon request.</p>
Answer 9	No – it is difficult to say with any confidence future impacts. It is expected to be a growing market but at present any future views have significant error margins.

Distributor Specific Questions

Question 10	What is the total number of shared Import/Export sites connected to your organisation's network?
Answer 10	

Question 11	<p>What is the number of Import/Export sites connected to your organisation's network that have a related material issue due to inappropriate allocation of volumes?</p> <p>(note that a 'material issue' could be indicated by the use of a workaround or existence of a dispute with the Supplier, or could have been recognised as material for some other reason)</p>
Answer 12	

Question 12	<p>What methods, if any, do you currently use to overcome or mitigate current issues caused by inappropriate allocation of Reactive Power?</p> <p>Please provide details of any workaround solutions adopted for impacted sites.</p> <ul style="list-style-type: none"> • How do your workaround processes work? • How effective are the workarounds and what limitations do they have? (e.g. accuracy of charging, omission/absorption of charges)? • What improvement in charging processes would you anticipate if P224 is implemented? (please quantify if possible)
Answer 12	

Supplier Specific Questions

Question 13	Other than those identified by P224 (e.g. involvement in disputes over Reactive Power charges), are there any further material issues for your organisation as a Supplier due to the issue of misallocated Reactive Power? Please Specify.
Answer 13	None noted.

Question 14	<p>Has your organisation experienced any material issues relating to inappropriate allocation of Reactive Power and DUoS charging as described by P224?</p> <ul style="list-style-type: none"> • How many material issues are you currently experiencing? • What is the estimated cost of the material issues? • What is the estimated cost of any other impacts of the issue identified by P224? (please provide details of the impacts)
Answer 14	None noted.

Question 15	<p>What savings would you expect if Proposed Modification P224 is implemented?</p> <ul style="list-style-type: none"> • What saving would you expect due to the removal of the material issues? (as described in question 6 above) • What saving would you expect due to any other benefit of the Proposed solution? (please provide details of the benefit)
Answer 15	None at present.

Change Proposal Circular

To	BSC Change Administrators (BCAs)/ Party Agent Change Administrators (PACAs)
No.	CPC00636
Purpose	Response Requested
From	Change Delivery
Date	06 June 2008

Impact Assessment of P224 'Reactive Power Flows Associated with Exemptable Generating Plant'

The purpose of this Impact Assessment is twofold:

- A. To determine any costs and impacts of the Proposed Modification for Parties and Party Agents, and to establish any implementation timescales required by Parties and Party Agents for P224. If Parties submit confidential information regarding implementation costs, please clearly indicate this as such. The Group are also seeking early views on whether a volume threshold should be applied to the P224 solution; and
- B. To request information to enable the Group to analyse the scale of the issue identified by P224 and quantify the cost-benefit of the Proposed Modification. It is anticipated that Distributors and Suppliers are best placed to provide such information, but all respondents are invited to supply any information they consider relevant.

Proposed Modification

Proposed Modification P224 seeks to revise the Code to allow Reactive Power volumes to be allocated to the Party responsible for the associated flow of Active Power. The aim is to resolve anomalies in the allocation of Reactive Power flows where a Supplier and Exemptable Generating Plant (such as embedded wind powered generators) share a site with a common metered Boundary Point. At present the Supplier responsible for Active Import is held responsible for some Reactive Power flows caused by operation of the Exemptable Generating Plant, which are assigned to the Import MSID of such shared Import/Export sites.

This issue does not directly affect Settlement but can materially impact Distributors' ability to implement appropriate Distribution Use of System (DUoS) charging. P224 would allow Reactive Power to be more appropriately allocated in relation to these shared sites. The extra data available would allow Distributors to improve their DUoS charging. Although the Modification Proposal considers the issue in relation to Supplier Volume Allocation, the Modification Group is ensuring any Central Volume Allocation issues are assessed.

Impact Assessment Requirements

Implementation of the Proposed Modification would be likely to impact **HHDCs**, due to the need to process data from reconfigured meter registers and issue modified information relating to the Export Party of shared sites via DTN data flows. Note however that no change to data flow structures is proposed.

There is a potential impact on **MOAs** due to reconfiguration of meter registers and meter software upgrades to facilitate the P224 solution. Note that the Proposed Modification is not retrospective. Impact in relation to new shared sites should be minimal, as they would be expected to be compliant; MOA impact would mainly relate to existing shared sites that may be re-registered at the request of a Supplier associated with such a site.

It is anticipated that the impact of the Proposed Modification would be primarily to sites registered in SVA. However, there is a potential for CVA impact, which could affect the **CDCA**.

Following implementation of the Proposed Modification, it is anticipated that **Distributors** would modify their charging processes to bill more accurately due to the revised allocation of Reactive Power flows and new metered information available. Consequentially, **Suppliers, Licence Exemptable Generators** and **Generators** would potentially be impacted by the effect of new charging processes on their DUoS bills.

Parties and Party Agents are requested to review the attached P224 Requirement Specification and respond to the questions included in the response form attached to this circular. Responses are required by **5.00pm on Wednesday 18 June 2008**.

Please let me know as soon as possible if you are unable to meet this deadline, as it may not be possible for the Modification Group to consider late responses. No response to this circular will be taken to mean that your organisation is not impacted by the proposed changes.

For more information on this circular, please contact Dean Riddell on 0207 380 4366 or email dean.riddell@elexon.co.uk.

Dean Riddell
Change Delivery

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4th Floor
350 Euston Road
LONDON
NW1 3AW

Email: modifications@elexon.co.uk

Tel: 020 7380 4361

CPC00636: Impact Assessment of P224

Organisation:	Electricity North West Limited		
Capacity Organisation operates in (e.g. Supplier, HHDC, etc.)	Distributor		
Assessor Name	Vara Tadi		
Contact Name (if different to Assessor)		BCA/PACA:	
Contact email:	Vara.tadi@enwltld.co.uk	Phone no:	07730074374

Please provide responses to the following questions:

Section A – Impact of the P224 Proposed Modification

General Questions

Question 1	Would Proposed Modification P224, as outlined in the attached Requirements Specification, impact your Organisation?
Answer 1	Yes

Question 2	If impacted by the Proposed Modification, please provide a description of the impact, costs and required implementation timescales (from the point of Authority approval) for your organisation.
Answer 2	We anticipate that the proposed change will have a low/medium impact on our use of system charging processes and systems. Costs are estimated at <£100,000 and we would require a minimum implementation timescale of nine months from the date of approval.

Question 3	Do you agree with the Modification Group's decision that a materiality threshold should not form part of the P224 solution? (i.e. the P224 provisions would apply to all Half Hourly settled Import/Export sites, including those below the 100kW demand threshold and 30kW microgeneration threshold) <ul style="list-style-type: none">• If you believe that there should be a materiality threshold, what value do you believe would be appropriate, and why?• Do you believe there are any benefits or impacts of not including a materiality threshold that the Group has not identified? Please specify.• Do you believe there are any benefits or impacts of including a materiality threshold that the Group has not identified? Please specify.
Answer 3	<ul style="list-style-type: none">• We do not believe that there should be a threshold.• We believe that applying a threshold will unnecessarily complicate the process, as alternative arrangements will need to be put in place if a threshold is introduced.• As stated above we feel that applying a threshold will not yield any benefits, only impacts

Question 4	Are there any potential P224 Alternative solutions that you believe the Group should consider? Please give details and justification.
Answer 4	Yes. In addition to the original P224 solution there should be a time limit, say two years, against which suppliers have to ensure the solution has been implemented against existing affected import/export sites, not just newly connected sites.

Distributor Specific Questions

Question 5	<p>If Proposed Modification P224 is implemented, what would the impact be on your billing procedures?</p> <ul style="list-style-type: none"> • Would you change your billing procedures? • What would be the impact on your billing procedures? • What would be the cost of changing your billing procedures?
Answer 5	<ul style="list-style-type: none"> • Yes • We would be provided with data to apply a common methodology for import and export customers • See response to question 2.

Question 6	<p>If Proposed Modification P224 is implemented, what would be the impact on any billing workarounds you use?</p> <ul style="list-style-type: none"> • Would you discontinue your workarounds? • What estimated cost saving would you expect due to discontinuing workarounds?
Answer 6	<ul style="list-style-type: none"> • Yes and No. Yes, we could discontinue the workarounds for new customers and no we would still need to apply the workaround for existing customers until the metering equipment is amended or changed. • Until the reactive power flows have been correctly attributed, there will a requirement for those uncorrected sites to have a workaround in place to ensure we correctly bill for reactive power. • None as we would not discontinue workarounds for the reasons stated above. Manual billing costs equate to approximately £30,000 to £40,000 a year and this would decrease over time as metering systems are changed or amended.

HHDC Specific Questions

Question 7	<p>What impact would Proposed Modification P224 have on your organisation as HHDC? Specific solution aspects for consideration are:</p> <ul style="list-style-type: none"> • Reconfiguration of meter registers by the MOA and receipt of notification of this via the D0268; • Allocation of the six meter register quantities to the appropriate Party, particularly allocation of three quantities to the Export Party; and • Production of amended D0036 and D0275 flows <p>See sections 3.3 and 3.4 for further details.</p>
Answer 7	n/a

MOA Specific Questions

Question 8	What specific impact would Proposed Modification P224, as outlined in the attached Requirements Specification, have on your organisation as an MOA?
Answer 8	n/a

Section B – Evidence of the P224 Issue (see Requirements Specification section 1.2 for further details)

General Questions

Question 9	<p>Do the issues identified by P224 have a material impact on your organisation at present, and do you anticipate that the impact will increase in future?</p> <p>Please provide a quantified or approximate indication of the present and expected materiality of impact on your organisation (and the timescales of any changes). Note that any information provided can be treated as confidential upon request.</p>
Answer 9	

Distributor Specific Questions

Question 10	What is the total number of shared Import/Export sites connected to your organisation's network?
Answer 10	About 300.

Question 11	<p>What is the number of Import/Export sites connected to your organisation's network that have a related material issue due to inappropriate allocation of volumes?</p> <p>(note that a 'material issue' could be indicated by the use of a workaround or existence of a dispute with the Supplier, or could have been recognised as material for some other reason)</p>
Answer 11	About 200.

Question 12	<p>What methods, if any, do you currently use to overcome or mitigate current issues caused by inappropriate allocation of Reactive Power?</p> <p>Please provide details of any workaround solutions adopted for impacted sites.</p> <ul style="list-style-type: none"> • How do your workaround processes work? • How effective are the workarounds and what limitations do they have? (e.g. accuracy of charging, omission/absorption of charges)? • What improvement in charging processes would you anticipate if P224 is implemented? (please quantify if possible)
Answer 12	<p>The current methods we adopt to accommodate the issues of incorrect Reactive billing employ one of 2 temporary solutions:-</p> <p>1) We have "switched off" the Reactive charge rate for LLF 413 which houses most of the</p>

<p>Question 12</p>	<p>What methods, if any, do you currently use to overcome or mitigate current issues caused by inappropriate allocation of Reactive Power?</p> <p>Please provide details of any workaround solutions adopted for impacted sites.</p> <ul style="list-style-type: none"> • How do your workaround processes work? • How effective are the workarounds and what limitations do they have? (e.g. accuracy of charging, omission/absorption of charges)? • What improvement in charging processes would you anticipate if P224 is implemented? (please quantify if possible)
	<p>impacted Import / Export sites. Therefore a £0.00 Reactive charge is automatically applied to all sites on this LLF.</p> <p>2) A handful of sites on this LLF have their Reactive charges manually calculated in accordance with our LC4a statement each month,. As well as these sites there are 2 or 3 sites on other LLFs that have their Reactive bills manually corrected.</p> <p>However, there are still Import / Export sites, mainly on LLF 253 and some Site Specific LLFs which continue to automatically bill for Reactive and their Reactive bills are not corrected unless there is a direct request (usually via a query from the Supplier) to look into the Reactive bill for a particular site.</p> <ul style="list-style-type: none"> • The workaround processes involve the following procedure:- <ol style="list-style-type: none"> 1) obtain the half hourly data for all Import / Export sites each month 2) hold back the bills for the sites we manually process for Reactive 3) process the half hourly data for each site through a model to calculate the correct reactive bill value 4) Apply this adjustment as a miscellaneous debit / credit on the individual site's bill <ul style="list-style-type: none"> • The workaround outlined above is effective for the selected sites we process this way inasmuch as the Reactive bill values are as accurate as they can be assuming all half hourly data has been received onto our system via the flows. But the workaround is manually intensive, dependent on data being received and produced in a timely manner and is very much limited to a few sites as manpower is not available to apply this process to ALL Import / Export sites. Ultimately there will have to be an exercise which goes back and recalculates the Reactive bills for all of these sites and retrospectively applies the correct Reactive charge for each. • The improvements anticipated by P224 would obviously mean the automation of Reactive billing once more - saving time and money for ENW plus the Suppliers confidence that the bills are accurate meaning less time consuming billing queries coming through. ENW Ltd have some 200 Import / Export sites so the automation of accurate billing is essential because manual intervention of the billing of these sites is costly in all ways.

Supplier Specific Questions

Question 13	Other than those identified by P224 (e.g. involvement in disputes over Reactive Power charges), are there any further material issues for your organisation as a Supplier due to the issue of misallocated Reactive Power? Please Specify.
Answer 13	n/a

Question 14	<p>Has your organisation experienced any material issues relating to inappropriate allocation of Reactive Power and DUoS charging as described by P224?</p> <ul style="list-style-type: none"> • How many material issues are you currently experiencing? • What is the estimated cost of the material issues? • What is the estimated cost of any other impacts of the issue identified by P224? (please provide details of the impacts)
Answer 14	n/a

Question 15	<p>What savings would you expect if Proposed Modification P224 is implemented?</p> <ul style="list-style-type: none"> • What saving would you expect due to the removal of the material issues? (as described in question 6 above) • What saving would you expect due to any other benefit of the Proposed solution? (please provide details of the benefit)
Answer 15	n/a

Change Proposal Circular

To	BSC Change Administrators (BCAs)/ Party Agent Change Administrators (PACAs)
No.	CPC00636
Purpose	Response Requested
From	Change Delivery
Date	06 June 2008

Impact Assessment of P224 'Reactive Power Flows Associated with Exemptable Generating Plant'

The purpose of this Impact Assessment is twofold:

- A. To determine any costs and impacts of the Proposed Modification for Parties and Party Agents, and to establish any implementation timescales required by Parties and Party Agents for P224. If Parties submit confidential information regarding implementation costs, please clearly indicate this as such. The Group are also seeking early views on whether a volume threshold should be applied to the P224 solution; and
- B. To request information to enable the Group to analyse the scale of the issue identified by P224 and quantify the cost-benefit of the Proposed Modification. It is anticipated that Distributors and Suppliers are best placed to provide such information, but all respondents are invited to supply any information they consider relevant.

Proposed Modification

Proposed Modification P224 seeks to revise the Code to allow Reactive Power volumes to be allocated to the Party responsible for the associated flow of Active Power. The aim is to resolve anomalies in the allocation of Reactive Power flows where a Supplier and Exemptable Generating Plant (such as embedded wind powered generators) share a site with a common metered Boundary Point. At present the Supplier responsible for Active Import is held responsible for some Reactive Power flows caused by operation of the Exemptable Generating Plant, which are assigned to the Import MSID of such shared Import/Export sites.

This issue does not directly affect Settlement but can materially impact Distributors' ability to implement appropriate Distribution Use of System (DUoS) charging. P224 would allow Reactive Power to be more appropriately allocated in relation to these shared sites. The extra data available would allow Distributors to improve their DUoS charging. Although the Modification Proposal considers the issue in relation to Supplier Volume Allocation, the Modification Group is ensuring any Central Volume Allocation issues are assessed.

Impact Assessment Requirements

Implementation of the Proposed Modification would be likely to impact **HHDCs**, due to the need to process data from reconfigured meter registers and issue modified information relating to the Export Party of shared sites via DTN data flows. Note however that no change to data flow structures is proposed.

There is a potential impact on **MOAs** due to reconfiguration of meter registers and meter software upgrades to facilitate the P224 solution. Note that the Proposed Modification is not retrospective. Impact in relation to new shared sites should be minimal, as they would be expected to be compliant; MOA impact would mainly relate to existing shared sites that may be re-registered at the request of a Supplier associated with such a site.

It is anticipated that the impact of the Proposed Modification would be primarily to sites registered in SVA. However, there is a potential for CVA impact, which could affect the **CDCA**.

Following implementation of the Proposed Modification, it is anticipated that **Distributors** would modify their charging processes to bill more accurately due to the revised allocation of Reactive Power flows and new metered information available. Consequentially, **Suppliers, Licence Exemptable Generators** and **Generators** would potentially be impacted by the effect of new charging processes on their DUoS bills.

Parties and Party Agents are requested to review the attached P224 Requirement Specification and respond to the questions included in the response form attached to this circular. Responses are required by **5.00pm on Wednesday 18 June 2008**.

Please let me know as soon as possible if you are unable to meet this deadline, as it may not be possible for the Modification Group to consider late responses. No response to this circular will be taken to mean that your organisation is not impacted by the proposed changes.

For more information on this circular, please contact Dean Riddell on 0207 380 4366 or email dean.riddell@elexon.co.uk.

Dean Riddell
Change Delivery

PLEASE RETURN RESPONSES by 5.00pm on Wednesday 18 June 2008 to:

ELEXON Modifications
4th Floor
350 Euston Road
LONDON
NW1 3AW

Email: modifications@elexon.co.uk

Tel: 020 7380 4361

CPC00636: Impact Assessment of P224

Organisation:	Gemserv Limited		
Capacity Organisation operates in (e.g. Supplier, HHDC, etc.)	MRA Services Company		
Assessor Name	Julia Byford-Smith		
Contact Name (if different to Assessor)		BCA/PACA:	
Contact email:	Julia.Byford-Smith@gemserv.com	Phone no:	020 7090 1071

Please provide responses to the following questions:

Section A – Impact of the P224 Proposed Modification

General Questions

Question 1	Would Proposed Modification P224, as outlined in the attached Requirements Specification, impact your Organisation?
Answer 1	Yes

Question 2	If impacted by the Proposed Modification, please provide a description of the impact, costs and required implementation timescales (from the point of Authority approval) for your organisation.
Answer 2	We believe that the proposed modification would necessitate changes to Annex C of the MRA Data Transfer Catalogue regarding the specific scenarios and examples for sending a D268 for Import and Export MPANs.

Question 3	Do you agree with the Modification Group's decision that a materiality threshold should not form part of the P224 solution? (i.e. the P224 provisions would apply to all Half Hourly settled Import/Export sites, including those below the 100kW demand threshold and 30kW microgeneration threshold) <ul style="list-style-type: none">• If you believe that there should be a materiality threshold, what value do you believe would be appropriate, and why?• Do you believe there are any benefits or impacts of not including a materiality threshold that the Group has not identified? Please specify.• Do you believe there are any benefits or impacts of including a materiality threshold that the Group has not identified? Please specify.
Answer 3	N/A

Question 4	Are there any potential P224 Alternative solutions that you believe the Group should consider? Please give details and justification.
Answer 4	N/A

Distributor Specific Questions

Question 5	If Proposed Modification P224 is implemented, what would the impact be on your billing procedures? <ul style="list-style-type: none">• Would you change your billing procedures?• What would be the impact on your billing procedures?• What would be the cost of changing your billing procedures?
Answer 5	N/A

Question 6	<p>If Proposed Modification P224 is implemented, what would be the impact on any billing workarounds you use?</p> <ul style="list-style-type: none"> • Would you discontinue your workarounds? • What estimated cost saving would you expect due to discontinuing workarounds?
Answer 6	N/A

HHDC Specific Questions

Question 7	<p>What impact would Proposed Modification P224 have on your organisation as HHDC? Specific solution aspects for consideration are:</p> <ul style="list-style-type: none"> • Reconfiguration of meter registers by the MOA and receipt of notification of this via the D0268; • Allocation of the six meter register quantities to the appropriate Party, particularly allocation of three quantities to the Export Party; and • Production of amended D0036 and D0275 flows <p>See sections 3.3 and 3.4 for further details.</p>
Answer 7	N/A

MOA Specific Questions

Question 8	What specific impact would Proposed Modification P224, as outlined in the attached Requirements Specification, have on your organisation as an MOA?
Answer 8	N/A

Section B – Evidence of the P224 Issue (see Requirements Specification section 1.2 for further details)

General Questions

Question 9	<p>Do the issues identified by P224 have a material impact on your organisation at present, and do you anticipate that the impact will increase in future?</p> <p>Please provide a quantified or approximate indication of the present and expected materiality of impact on your organisation (and the timescales of any changes). Note that any information provided can be treated as confidential upon request.</p>
Answer 9	No impact on MRA

Distributor Specific Questions

Question 10	What is the total number of shared Import/Export sites connected to your organisation's network?
Answer 10	N/A

Question 11	<p>What is the number of Import/Export sites connected to your organisation's network that have a related material issue due to inappropriate allocation of volumes?</p> <p>(note that a 'material issue' could be indicated by the use of a workaround or existence of a dispute with the Supplier, or could have been recognised as material for some other reason)</p>
Answer 12	N/A

Question 12	<p>What methods, if any, do you currently use to overcome or mitigate current issues caused by inappropriate allocation of Reactive Power?</p> <p>Please provide details of any workaround solutions adopted for impacted sites.</p> <ul style="list-style-type: none"> • How do your workaround processes work? • How effective are the workarounds and what limitations do they have? (e.g. accuracy of charging, omission/absorption of charges)? • What improvement in charging processes would you anticipate if P224 is implemented? (please quantify if possible)
Answer 12	N/A

Supplier Specific Questions

Question 13	<p>Other than those identified by P224 (e.g. involvement in disputes over Reactive Power charges), are there any further material issues for your organisation as a Supplier due to the issue of misallocated Reactive Power? Please Specify.</p>
Answer 13	N/A

Question 14	<p>Has your organisation experienced any material issues relating to inappropriate allocation of Reactive Power and DUoS charging as described by P224?</p> <ul style="list-style-type: none"> • How many material issues are you currently experiencing? • What is the estimated cost of the material issues? • What is the estimated cost of any other impacts of the issue identified by P224? (please provide details of the impacts)
Answer 14	N/A

Question 15	<p>What savings would you expect if Proposed Modification P224 is implemented?</p> <ul style="list-style-type: none"> • What saving would you expect due to the removal of the material issues? (as described in question 6 above) • What saving would you expect due to any other benefit of the Proposed solution? (please provide details of the benefit)
Answer 15	N/A

Change Proposal Circular

To	BSC Change Administrators (BCAs)/ Party Agent Change Administrators (PACAs)
No.	CPC00636
Purpose	Response Requested
From	Change Delivery
Date	06 June 2008

Impact Assessment of P224 'Reactive Power Flows Associated with Exemptable Generating Plant'

The purpose of this Impact Assessment is twofold:

- A. To determine any costs and impacts of the Proposed Modification for Parties and Party Agents, and to establish any implementation timescales required by Parties and Party Agents for P224. If Parties submit confidential information regarding implementation costs, please clearly indicate this as such. The Group are also seeking early views on whether a volume threshold should be applied to the P224 solution; and
- B. To request information to enable the Group to analyse the scale of the issue identified by P224 and quantify the cost-benefit of the Proposed Modification. It is anticipated that Distributors and Suppliers are best placed to provide such information, but all respondents are invited to supply any information they consider relevant.

Proposed Modification

Proposed Modification P224 seeks to revise the Code to allow Reactive Power volumes to be allocated to the Party responsible for the associated flow of Active Power. The aim is to resolve anomalies in the allocation of Reactive Power flows where a Supplier and Exemptable Generating Plant (such as embedded wind powered generators) share a site with a common metered Boundary Point. At present the Supplier responsible for Active Import is held responsible for some Reactive Power flows caused by operation of the Exemptable Generating Plant, which are assigned to the Import MSID of such shared Import/Export sites.

This issue does not directly affect Settlement but can materially impact Distributors' ability to implement appropriate Distribution Use of System (DUoS) charging. P224 would allow Reactive Power to be more appropriately allocated in relation to these shared sites. The extra data available would allow Distributors to improve their DUoS charging. Although the Modification Proposal considers the issue in relation to Supplier Volume Allocation, the Modification Group is ensuring any Central Volume Allocation issues are assessed.

Impact Assessment Requirements

Implementation of the Proposed Modification would be likely to impact **HHDCs**, due to the need to process data from reconfigured meter registers and issue modified information relating to the Export Party of shared sites via DTN data flows. Note however that no change to data flow structures is proposed.

There is a potential impact on **MOAs** due to reconfiguration of meter registers and meter software upgrades to facilitate the P224 solution. Note that the Proposed Modification is not retrospective. Impact in relation to new shared sites should be minimal, as they would be expected to be compliant; MOA impact would mainly relate to existing shared sites that may be re-registered at the request of a Supplier associated with such a site.

It is anticipated that the impact of the Proposed Modification would be primarily to sites registered in SVA. However, there is a potential for CVA impact, which could affect the **CDCA**.

Following implementation of the Proposed Modification, it is anticipated that **Distributors** would modify their charging processes to bill more accurately due to the revised allocation of Reactive Power flows and new metered information available. Consequentially, **Suppliers, Licence Exemptable Generators** and **Generators** would potentially be impacted by the effect of new charging processes on their DUoS bills.

Parties and Party Agents are requested to review the attached P224 Requirement Specification and respond to the questions included in the response form attached to this circular. Responses are required by **5.00pm on Wednesday 18 June 2008**.

Please let me know as soon as possible if you are unable to meet this deadline, as it may not be possible for the Modification Group to consider late responses. No response to this circular will be taken to mean that your organisation is not impacted by the proposed changes.

For more information on this circular, please contact Dean Riddell on 0207 380 4366 or email dean.riddell@elexon.co.uk.

Dean Riddell
Change Delivery

PLEASE RETURN RESPONSES by 5.00pm on Wednesday 18 June 2008 to:

ELEXON Modifications
4th Floor
350 Euston Road
LONDON
NW1 3AW

Email: modifications@elexon.co.uk

Tel: 020 7380 4361

CPC00636: Impact Assessment of P224

Organisation:	RWE Trading GmbH, RWE Npower plc, Great Yarmouth Power Ltd, Npower Cogen Trading Ltd, Npower Direct Ltd, Npower Ltd, Npower Northern Ltd, Npower Northern Supply Ltd, Npower Yorkshire Ltd, Npower Yorkshire Supply Ltd.		
Capacity Organisation operates in (e.g. Supplier, HHDC, etc.)	Supplier/Generator/Trader/Consolidator/Exemptable Generator/Party Agent		
Assessor Name	Howard Gregory		
Contact Name (if different to Assessor)		BCA/PACA:	
Contact email:	Howard.Gregory@npower.com	Phone no:	01905 340436

Please provide responses to the following questions:

Section A – Impact of the P224 Proposed Modification

General Questions

Question 1	Would Proposed Modification P224, as outlined in the attached Requirements Specification, impact your Organisation?
Answer 1	Yes

Question 2	If impacted by the Proposed Modification, please provide a description of the impact, costs and required implementation timescales (from the point of Authority approval) for your organisation.
Answer 2	As the proposal does not indicate any change to the structure of the D0275 and D0036, we do not anticipate any upgrade to our core Settlement systems. However, our billing system may require an upgrade to handle a Reactive billed element on Export sites. We estimate upgrade costs in the region of £50k with a 9 month implementation timescale from point of Authority approval.

Question 3	Do you agree with the Modification Group's decision that a materiality threshold should not form part of the P224 solution? (i.e. the P224 provisions would apply to all Half Hourly settled Import/Export sites, including those below the 100kW demand threshold and 30kW microgeneration threshold) <ul style="list-style-type: none"> • If you believe that there should be a materiality threshold, what value do you believe would be appropriate, and why? • Do you believe there are any benefits or impacts of not including a materiality threshold that the Group has not identified? Please specify. • Do you believe there are any benefits or impacts of including a materiality threshold that the Group has not identified? Please specify.
Answer 3	<p>We believe that a threshold should form part of the P224 solution.</p> <p>The availability of Reactive data at HH intervals can be of significant benefit to the LDSOs, but applying Reactive power metering for small loads would not appear to be economic. We believe it would be appropriate to introduce a threshold in the Modification, though trying to apply a materiality kW or KWh threshold creates boundary issues and definition problems.</p> <p>A better approach may be to consider applying this Modification to customers equipped with CoP5 and CoP3 metering i.e. it effectively becomes part of CoP5 and CoP3. We believe this approach has the following merits:</p> <ul style="list-style-type: none"> • It would target those Import/Export sites that are the source of the issue. • It does not place an enduring obligation on all future elective HH settled Import/Export sites which could be a barrier to the roll out of smart metering and microgeneration. • It would appear to be a more economic approach.

Question 4	Are there any potential P224 Alternative solutions that you believe the Group should consider? Please give details and justification.
Answer 4	We believe that the Modification should be amended to apply to those customers equipped with CoP5 or CoP3 metering. If this amendment can not be made to the Proposed then an Alternative solution containing reference to customers with CoP5 or CoP3 metering should be considered for the reasons already discussed in our response to Question 3.

Distributor Specific Questions

Question 5	If Proposed Modification P224 is implemented, what would the impact be on your billing procedures? <ul style="list-style-type: none"> • Would you change your billing procedures? • What would be the impact on your billing procedures? • What would be the cost of changing your billing procedures?
Answer 5	

Question 6	If Proposed Modification P224 is implemented, what would be the impact on any billing workarounds you use? <ul style="list-style-type: none"> • Would you discontinue your workarounds? • What estimated cost saving would you expect due to discontinuing workarounds?
Answer 6	

HHDC Specific Questions

Question 7	What impact would Proposed Modification P224 have on your organisation as HHDC? Specific solution aspects for consideration are: <ul style="list-style-type: none"> • Reconfiguration of meter registers by the MOA and receipt of notification of this via the D0268; • Allocation of the six meter register quantities to the appropriate Party, particularly allocation of three quantities to the Export Party; and • Production of amended D0036 and D0275 flows See sections 3.3 and 3.4 for further details.
Answer 7	<p>Reconfiguration of meter registers by the MOA will place additional work on the HHDC. The reconfiguration of the D0268 could be prone to error if the configuration of the D0268 for import/export sites is not strictly adhered to. We would need to investigate potential validation checks in our D0268 management system and processes to avoid potential 'double accounting'.</p> <p>Our core half-hourly data management system would need upgrading and testing to process the new AE/RI/RE MQID combination to the Export Party. We estimate costs in the region of £60k with an 18 month implementation timescale.</p>

MOA Specific Questions

Question 8	What specific impact would Proposed Modification P224, as outlined in the attached Requirements Specification, have on your organisation as an MOA?
Answer 8	<p>The MOA will be impacted if they are required to re-visit sites with embedded generation to reconfigure existing metering systems. There is a reluctance to have to re-visit and re-configure meters given limited Operative and time resources. Each reprogrammed meter will require a Proving test which will affect the HHMOA and HHDC. The HHMOA also envisage difficulty in recovering the cost of this site visit from Supply or the Customer. Suppliers should be responsible for any re-work. Costs to re-visit and re-configure: £250 to £400 per CoP 5 meter; £450 to £600 per CoP 3 meter.</p> <p>The modification may make several meters currently in operation and compliant with the Codes of Practice, unsuitable for use on import/export sites. Such limitations could be a burden to the Meter Operator.</p>

Section B – Evidence of the P224 Issue (see Requirements Specification section 1.2 for further details)

General Questions

Question 9	<p>Do the issues identified by P224 have a material impact on your organisation at present, and do you anticipate that the impact will increase in future?</p> <p>Please provide a quantified or approximate indication of the present and expected materiality of impact on your organisation (and the timescales of any changes).</p> <p>Note that any information provided can be treated as confidential upon request.</p>
Answer 9	<p>We are aware of the issues identified by P224 which lead to anomalous Reactive Power and Supply (Demand) Capacity charging by the LDSOs. We have experienced problems with resolving Reactive billing disputes with some customers due to the issues identified by P224. There is potential for an increase in the number of unresolved disputes as the number of sites with Embedded Generation (particularly windfarms) is expected to grow significantly over the next few years.</p>

Distributor Specific Questions

Question 10	What is the total number of shared Import/Export sites connected to your organisation's network?
Answer 10	
Question 11	<p>What is the number of Import/Export sites connected to your organisation's network that have a related material issue due to inappropriate allocation of volumes?</p> <p>(note that a 'material issue' could be indicated by the use of a workaround or existence of a dispute with the Supplier, or could have been recognised as material for some other reason)</p>
Answer 12	

Question 12	<p>What methods, if any, do you currently use to overcome or mitigate current issues caused by inappropriate allocation of Reactive Power?</p> <p>Please provide details of any workaround solutions adopted for impacted sites.</p> <ul style="list-style-type: none"> • How do your workaround processes work? • How effective are the workarounds and what limitations do they have? (e.g. accuracy of charging, omission/absorption of charges)? • What improvement in charging processes would you anticipate if P224 is implemented? (please quantify if possible)
Answer 12	

Supplier Specific Questions

Question 13	<p>Other than those identified by P224 (e.g. involvement in disputes over Reactive Power charges), are there any further material issues for your organisation as a Supplier due to the issue of misallocated Reactive Power? Please Specify.</p>
Answer 13	<p>Section 4.1.1 in CoP3 & CoP5 specifies that the following reactive energy measurements are required for settlements kvarh import & kvarh export but governance documentation doesn't specify what specific quadrants should be summated or indeed if they should be summated at all. All Half-Hourly meters are capable of being programmed to measure 4 quadrant reactive values, and whilst some meters have limited capabilities many are capable of measuring every possible combination of reactive power.</p> <p>The industry DTC flow D0268 is sent to the Half-Hourly Data Collectors informing them of the meter configuration and within the D0268 the J0103 field states the measurement id which, for reactive, can either be "RI" or "RE" reactive import or reactive export respectively. Although the identifier informs the HHDC that reactive measurements are being recorded it doesn't specify what precise quadrant or quadrants are being measured.</p>

Question 14	<p>Has your organisation experienced any material issues relating to inappropriate allocation of Reactive Power and DUoS charging as described by P224?</p> <ul style="list-style-type: none"> • How many material issues are you currently experiencing? • What is the estimated cost of the material issues? • What is the estimated cost of any other impacts of the issue identified by P224? (please provide details of the impacts)
Answer 14	<p>Materiality surrounding the issues described by P224 is largely centred on validation of the Reactive charges for an Import MPAN where we are not the Party responsible for the associated Export MPAN. This has led to problems with resolving disputes with some customers.</p>

Question 15	<p>What savings would you expect if Proposed Modification P224 is implemented?</p> <ul style="list-style-type: none"> • What saving would you expect due to the removal of the material issues? (as described in question 6 above) • What saving would you expect due to any other benefit of the Proposed solution? (please provide details of the benefit)
Answer 15	<p>Any savings would revolve round improved transparency in Reactive charging for Import/Export sites. This should improve validation of DUoS charges and reduce billing disputes from customers. It is difficult to gauge the savings the removal of any workarounds would have since the Modification would not apply retrospectively.</p>

Change Proposal Circular

To	BSC Change Administrators (BCAs)/ Party Agent Change Administrators (PACAs)
No.	CPC00636
Purpose	Response Requested
From	Change Delivery
Date	06 June 2008

Impact Assessment of P224 'Reactive Power Flows Associated with Exemptable Generating Plant'

The purpose of this Impact Assessment is twofold:

- A. To determine any costs and impacts of the Proposed Modification for Parties and Party Agents, and to establish any implementation timescales required by Parties and Party Agents for P224. If Parties submit confidential information regarding implementation costs, please clearly indicate this as such. The Group are also seeking early views on whether a volume threshold should be applied to the P224 solution; and
- B. To request information to enable the Group to analyse the scale of the issue identified by P224 and quantify the cost-benefit of the Proposed Modification. It is anticipated that Distributors and Suppliers are best placed to provide such information, but all respondents are invited to supply any information they consider relevant.

Proposed Modification

Proposed Modification P224 seeks to revise the Code to allow Reactive Power volumes to be allocated to the Party responsible for the associated flow of Active Power. The aim is to resolve anomalies in the allocation of Reactive Power flows where a Supplier and Exemptable Generating Plant (such as embedded wind powered generators) share a site with a common metered Boundary Point. At present the Supplier responsible for Active Import is held responsible for some Reactive Power flows caused by operation of the Exemptable Generating Plant, which are assigned to the Import MSID of such shared Import/Export sites.

This issue does not directly affect Settlement but can materially impact Distributors' ability to implement appropriate Distribution Use of System (DUoS) charging. P224 would allow Reactive Power to be more appropriately allocated in relation to these shared sites. The extra data available would allow Distributors to improve their DUoS charging. Although the Modification Proposal considers the issue in relation to Supplier Volume Allocation, the Modification Group is ensuring any Central Volume Allocation issues are assessed.

Impact Assessment Requirements

Implementation of the Proposed Modification would be likely to impact **HHDCs**, due to the need to process data from reconfigured meter registers and issue modified information relating to the Export Party of shared sites via DTN data flows. Note however that no change to data flow structures is proposed.

There is a potential impact on **MOAs** due to reconfiguration of meter registers and meter software upgrades to facilitate the P224 solution. Note that the Proposed Modification is not retrospective. Impact in relation to new shared sites should be minimal, as they would be expected to be compliant; MOA impact would mainly relate to existing shared sites that may be re-registered at the request of a Supplier associated with such a site.

It is anticipated that the impact of the Proposed Modification would be primarily to sites registered in SVA. However, there is a potential for CVA impact, which could affect the **CDCA**.

Following implementation of the Proposed Modification, it is anticipated that **Distributors** would modify their charging processes to bill more accurately due to the revised allocation of Reactive Power flows and new metered information available. Consequentially, **Suppliers, Licence Exemptable Generators** and **Generators** would potentially be impacted by the effect of new charging processes on their DUoS bills.

Parties and Party Agents are requested to review the attached P224 Requirement Specification and respond to the questions included in the response form attached to this circular. Responses are required by **5.00pm on Wednesday 18 June 2008**.

Please let me know as soon as possible if you are unable to meet this deadline, as it may not be possible for the Modification Group to consider late responses. No response to this circular will be taken to mean that your organisation is not impacted by the proposed changes.

For more information on this circular, please contact Dean Riddell on 0207 380 4366 or email dean.riddell@elexon.co.uk.

Dean Riddell
Change Delivery

PLEASE RETURN RESPONSES by 5.00pm on Wednesday 18 June 2008 to:

ELEXON Modifications
4th Floor
350 Euston Road
LONDON
NW1 3AW

Email: modifications@elexon.co.uk

Tel: 020 7380 4361

CPC00636: Impact Assessment of P224

Organisation:	Southern Electric Power Distribution; Keadby Generation Ltd; SSE Energy Supply Ltd; SSE Generation Ltd; and Scottish Hydro-Electric Power Distribution Ltd; Medway Power Ltd; SSE Metering Ltd;		
Capacity Organisation operates in (e.g. Supplier, HHDC, etc.)	Supplier/Generator/ Trader / Party Agent / Distributor		
Assessor Name	Vasu Mistry		
Contact Name (if different to Assessor)		BCA/PACA:	
Contact email:	vasu.mistry@scottish-southern.co.uk	Phone no:	01256 304123

Please provide responses to the following questions:

Section A – Impact of the P224 Proposed Modification

General Questions

Question 1	Would Proposed Modification P224, as outlined in the attached Requirements Specification, impact your Organisation?
Answer 1	Yes
Question 2	If impacted by the Proposed Modification, please provide a description of the impact, costs and required implementation timescales (from the point of Authority approval) for your organisation.
Answer 2	Some changes to process and systems which would require about 6 months timescales.
Question 3	<p>Do you agree with the Modification Group's decision that a materiality threshold should not form part of the P224 solution? (i.e. the P224 provisions would apply to all Half Hourly settled Import/Export sites, including those below the 100kW demand threshold and 30kW microgeneration threshold)</p> <ul style="list-style-type: none"> • If you believe that there should be a materiality threshold, what value do you believe would be appropriate, and why? • Do you believe there are any benefits or impacts of not including a materiality threshold that the Group has not identified? Please specify. • Do you believe there are any benefits or impacts of including a materiality threshold that the Group has not identified? Please specify.
Answer 3	Agree that there should be no threshold. It would simplify and be easy to monitor.
Question 4	Are there any potential P224 Alternative solutions that you believe the Group should consider? Please give details and justification.
Answer 4	No

Distributor Specific Questions

Question 5	<p>If Proposed Modification P224 is implemented, what would the impact be on your billing procedures?</p> <ul style="list-style-type: none"> • Would you change your billing procedures? • What would be the impact on your billing procedures? • What would be the cost of changing your billing procedures?
Answer 5	Minimal changes and impact to our procedures with insignificant cost.

Question 6	<p>If Proposed Modification P224 is implemented, what would be the impact on any billing workarounds you use?</p> <ul style="list-style-type: none"> • Would you discontinue your workarounds? • What estimated cost saving would you expect due to discontinuing workarounds?
Answer 6	There would be no material cost savings in discontinuing our workaround, but billing would be more accurate.

HHDC Specific Questions

Question 7	<p>What impact would Proposed Modification P224 have on your organisation as HHDC? Specific solution aspects for consideration are:</p> <ul style="list-style-type: none"> • Reconfiguration of meter registers by the MOA and receipt of notification of this via the D0268; • Allocation of the six meter register quantities to the appropriate Party, particularly allocation of three quantities to the Export Party; and • Production of amended D0036 and D0275 flows <p>See sections 3.3 and 3.4 for further details.</p>
Answer 7	n/a

MOA Specific Questions

Question 8	What specific impact would Proposed Modification P224, as outlined in the attached Requirements Specification, have on your organisation as an MOA?
Answer 8	Sourcing new meters compliant with the requirements.

Section B – Evidence of the P224 Issue (see Requirements Specification section 1.2 for further details)

General Questions

Question 9	<p>Do the issues identified by P224 have a material impact on your organisation at present, and do you anticipate that the impact will increase in future?</p> <p>Please provide a quantified or approximate indication of the present and expected materiality of impact on your organisation (and the timescales of any changes). Note that any information provided can be treated as confidential upon request.</p>
Answer 9	We are carrying out billing workarounds on 75 sites for around £700K per annum. SSE has plans to significantly expand our wind farm generation.

Distributor Specific Questions

Question 10	What is the total number of shared Import/Export sites connected to your organisation's network?
Answer 10	135 HH sites, assuming the question is asking for HH sites only.

Question 11	<p>What is the number of Import/Export sites connected to your organisation's network that have a related material issue due to inappropriate allocation of volumes?</p> <p>(note that a 'material issue' could be indicated by the use of a workaround or existence of a dispute with the Supplier, or could have been recognised as material for some other reason)</p>
Answer 11	30 sites

Question 12	<p>What methods, if any, do you currently use to overcome or mitigate current issues caused by inappropriate allocation of Reactive Power?</p> <p>Please provide details of any workaround solutions adopted for impacted sites.</p> <ul style="list-style-type: none"> • How do your workaround processes work? • How effective are the workarounds and what limitations do they have? (e.g. accuracy of charging, omission/absorption of charges)? • What improvement in charging processes would you anticipate if P224 is implemented? (please quantify if possible)
Answer 12	We do not currently bill reactive power (kVArh). However, if P224 was implemented it would ensure no issues arise if we decided to bill reactive power at some point in the future.

Supplier Specific Questions

Question 13	Other than those identified by P224 (e.g. involvement in disputes over Reactive Power charges), are there any further material issues for your organisation as a Supplier due to the issue of misallocated Reactive Power? Please Specify.
Answer 13	No

Question 14	<p>Has your organisation experienced any material issues relating to inappropriate allocation of Reactive Power and DUoS charging as described by P224?</p> <ul style="list-style-type: none"> • How many material issues are you currently experiencing? • What is the estimated cost of the material issues? • What is the estimated cost of any other impacts of the issue identified by P224? (please provide details of the impacts)
Answer 14	There are about 70 issues that we are currently experiencing with the cost of around £200K per annum. No other impacts identified.

Question 15	<p>What savings would you expect if Proposed Modification P224 is implemented?</p> <ul style="list-style-type: none"> • What saving would you expect due to the removal of the material issues? (as described in question 6 above) • What saving would you expect due to any other benefit of the Proposed solution? (please provide details of the benefit)
Answer 15	<p>We would expect a saving of around £200K per annum from the removal of the material issues. No other savings.</p>

Change Proposal Circular

To	BSC Change Administrators (BCAs)/ Party Agent Change Administrators (PACAs)
No.	CPC00636
Purpose	Response Requested
From	Change Delivery
Date	06 June 2008

Impact Assessment of P224 'Reactive Power Flows Associated with Exemptable Generating Plant'

The purpose of this Impact Assessment is twofold:

- A. To determine any costs and impacts of the Proposed Modification for Parties and Party Agents, and to establish any implementation timescales required by Parties and Party Agents for P224. If Parties submit confidential information regarding implementation costs, please clearly indicate this as such. The Group are also seeking early views on whether a volume threshold should be applied to the P224 solution; and
- B. To request information to enable the Group to analyse the scale of the issue identified by P224 and quantify the cost-benefit of the Proposed Modification. It is anticipated that Distributors and Suppliers are best placed to provide such information, but all respondents are invited to supply any information they consider relevant.

Proposed Modification

Proposed Modification P224 seeks to revise the Code to allow Reactive Power volumes to be allocated to the Party responsible for the associated flow of Active Power. The aim is to resolve anomalies in the allocation of Reactive Power flows where a Supplier and Exemptable Generating Plant (such as embedded wind powered generators) share a site with a common metered Boundary Point. At present the Supplier responsible for Active Import is held responsible for some Reactive Power flows caused by operation of the Exemptable Generating Plant, which are assigned to the Import MSID of such shared Import/Export sites.

This issue does not directly affect Settlement but can materially impact Distributors' ability to implement appropriate Distribution Use of System (DUoS) charging. P224 would allow Reactive Power to be more appropriately allocated in relation to these shared sites. The extra data available would allow Distributors to improve their DUoS charging. Although the Modification Proposal considers the issue in relation to Supplier Volume Allocation, the Modification Group is ensuring any Central Volume Allocation issues are assessed.

Impact Assessment Requirements

Implementation of the Proposed Modification would be likely to impact **HHDCs**, due to the need to process data from reconfigured meter registers and issue modified information relating to the Export Party of shared sites via DTN data flows. Note however that no change to data flow structures is proposed.

There is a potential impact on **MOAs** due to reconfiguration of meter registers and meter software upgrades to facilitate the P224 solution. Note that the Proposed Modification is not retrospective. Impact in relation to new shared sites should be minimal, as they would be expected to be compliant; MOA impact would mainly relate to existing shared sites that may be re-registered at the request of a Supplier associated with such a site.

It is anticipated that the impact of the Proposed Modification would be primarily to sites registered in SVA. However, there is a potential for CVA impact, which could affect the **CDCA**.

Following implementation of the Proposed Modification, it is anticipated that **Distributors** would modify their charging processes to bill more accurately due to the revised allocation of Reactive Power flows and new metered information available. Consequentially, **Suppliers, Licence Exemptable Generators** and **Generators** would potentially be impacted by the effect of new charging processes on their DUoS bills.

Parties and Party Agents are requested to review the attached P224 Requirement Specification and respond to the questions included in the response form attached to this circular. Responses are required by **5.00pm on Wednesday 18 June 2008**.

Please let me know as soon as possible if you are unable to meet this deadline, as it may not be possible for the Modification Group to consider late responses. No response to this circular will be taken to mean that your organisation is not impacted by the proposed changes.

For more information on this circular, please contact Dean Riddell on 0207 380 4366 or email dean.riddell@elexon.co.uk.

Dean Riddell
Change Delivery

PLEASE RETURN RESPONSES by 5.00pm on Wednesday 18 June 2008 to:

ELEXON Modifications
4th Floor
350 Euston Road
LONDON
NW1 3AW

Email: modifications@elexon.co.uk

Tel: 020 7380 4361

CPC00636: Impact Assessment of P224

Organisation:	SSIL		
Capacity Organisation operates in (e.g. Supplier, HHDC, etc.)	HHDC/HHDA		
Assessor Name	Ed Sutton		
Contact Name (if different to Assessor)		BCA/PACA:	
Contact email:	esutton@claritydata.co.uk	Phone no:	07946 399297

Please provide responses to the following questions:

Section A – Impact of the P224 Proposed Modification

General Questions

Question 1	Would Proposed Modification P224, as outlined in the attached Requirements Specification, impact your Organisation?
Answer 1	Yes

Question 2	If impacted by the Proposed Modification, please provide a description of the impact, costs and required implementation timescales (from the point of Authority approval) for your organisation.
Answer 2	SSIL's HHDC system does not blindly rely on channel numbers within the D0268 to correctly define logged measurement quantities within a meter. This mod has highlighted that MOPs sometimes differ in what they require to be collected from a given meter type. Some define RI as the sum of quadrants, others define a single quadrant. Further understanding is needed before the full impact of the proposal is understood.

Question 3	Do you agree with the Modification Group's decision that a materiality threshold should not form part of the P224 solution? (i.e. the P224 provisions would apply to all Half Hourly settled Import/Export sites, including those below the 100kW demand threshold and 30kW microgeneration threshold) <ul style="list-style-type: none">• If you believe that there should be a materiality threshold, what value do you believe would be appropriate, and why?• Do you believe there are any benefits or impacts of not including a materiality threshold that the Group has not identified? Please specify.• Do you believe there are any benefits or impacts of including a materiality threshold that the Group has not identified? Please specify.
Answer 3	

Question 4	Are there any potential P224 Alternative solutions that you believe the Group should consider? Please give details and justification.
Answer 4	

Distributor Specific Questions

Question 5	If Proposed Modification P224 is implemented, what would the impact be on your billing procedures? <ul style="list-style-type: none">• Would you change your billing procedures?• What would be the impact on your billing procedures?• What would be the cost of changing your billing procedures?
Answer 5	

Question 6	<p>If Proposed Modification P224 is implemented, what would be the impact on any billing workarounds you use?</p> <ul style="list-style-type: none"> • Would you discontinue your workarounds? • What estimated cost saving would you expect due to discontinuing workarounds?
Answer 6	

HHDC Specific Questions

Question 7	<p>What impact would Proposed Modification P224 have on your organisation as HHDC? Specific solution aspects for consideration are:</p> <ul style="list-style-type: none"> • Reconfiguration of meter registers by the MOA and receipt of notification of this via the D0268; • Allocation of the six meter register quantities to the appropriate Party, particularly allocation of three quantities to the Export Party; and • Production of amended D0036 and D0275 flows <p>See sections 3.3 and 3.4 for further details.</p>
Answer 7	<p>We may need to redefine the way SSIL's retrieval system determines the correct reactive channel from within the meter under Importing and Exporting conditions.</p>

MOA Specific Questions

Question 8	<p>What specific impact would Proposed Modification P224, as outlined in the attached Requirements Specification, have on your organisation as an MOA?</p>
Answer 8	

Section B – Evidence of the P224 Issue (see Requirements Specification section 1.2 for further details)

General Questions

Question 9	<p>Do the issues identified by P224 have a material impact on your organisation at present, and do you anticipate that the impact will increase in future?</p> <p>Please provide a quantified or approximate indication of the present and expected materiality of impact on your organisation (and the timescales of any changes). Note that any information provided can be treated as confidential upon request.</p>
Answer 9	<p>Normal implementation timescales should suffice.</p>

Distributor Specific Questions

Question 10	What is the total number of shared Import/Export sites connected to your organisation's network?
Answer 10	

Question 11	<p>What is the number of Import/Export sites connected to your organisation's network that have a related material issue due to inappropriate allocation of volumes?</p> <p>(note that a 'material issue' could be indicated by the use of a workaround or existence of a dispute with the Supplier, or could have been recognised as material for some other reason)</p>
Answer 12	

Question 12	<p>What methods, if any, do you currently use to overcome or mitigate current issues caused by inappropriate allocation of Reactive Power?</p> <p>Please provide details of any workaround solutions adopted for impacted sites.</p> <ul style="list-style-type: none"> • How do your workaround processes work? • How effective are the workarounds and what limitations do they have? (e.g. accuracy of charging, omission/absorption of charges)? • What improvement in charging processes would you anticipate if P224 is implemented? (please quantify if possible)
Answer 12	

Supplier Specific Questions

Question 13	Other than those identified by P224 (e.g. involvement in disputes over Reactive Power charges), are there any further material issues for your organisation as a Supplier due to the issue of misallocated Reactive Power? Please Specify.
Answer 13	

Question 14	<p>Has your organisation experienced any material issues relating to inappropriate allocation of Reactive Power and DUoS charging as described by P224?</p> <ul style="list-style-type: none"> • How many material issues are you currently experiencing? • What is the estimated cost of the material issues? • What is the estimated cost of any other impacts of the issue identified by P224? (please provide details of the impacts)
Answer 14	

Question 15	<p>What savings would you expect if Proposed Modification P224 is implemented?</p> <ul style="list-style-type: none"> • What saving would you expect due to the removal of the material issues? (as described in question 6 above) • What saving would you expect due to any other benefit of the Proposed solution? (please provide details of the benefit)
Answer 15	

Change Proposal Circular

To	BSC Change Administrators (BCAs)/ Party Agent Change Administrators (PACAs)
No.	CPC00636
Purpose	Response Requested
From	Change Delivery
Date	06 June 2008

Impact Assessment of P224 'Reactive Power Flows Associated with Exemptable Generating Plant'

The purpose of this Impact Assessment is twofold:

- A. To determine any costs and impacts of the Proposed Modification for Parties and Party Agents, and to establish any implementation timescales required by Parties and Party Agents for P224. If Parties submit confidential information regarding implementation costs, please clearly indicate this as such. The Group are also seeking early views on whether a volume threshold should be applied to the P224 solution; and
- B. To request information to enable the Group to analyse the scale of the issue identified by P224 and quantify the cost-benefit of the Proposed Modification. It is anticipated that Distributors and Suppliers are best placed to provide such information, but all respondents are invited to supply any information they consider relevant.

Proposed Modification

Proposed Modification P224 seeks to revise the Code to allow Reactive Power volumes to be allocated to the Party responsible for the associated flow of Active Power. The aim is to resolve anomalies in the allocation of Reactive Power flows where a Supplier and Exemptable Generating Plant (such as embedded wind powered generators) share a site with a common metered Boundary Point. At present the Supplier responsible for Active Import is held responsible for some Reactive Power flows caused by operation of the Exemptable Generating Plant, which are assigned to the Import MSID of such shared Import/Export sites.

This issue does not directly affect Settlement but can materially impact Distributors' ability to implement appropriate Distribution Use of System (DUoS) charging. P224 would allow Reactive Power to be more appropriately allocated in relation to these shared sites. The extra data available would allow Distributors to improve their DUoS charging. Although the Modification Proposal considers the issue in relation to Supplier Volume Allocation, the Modification Group is ensuring any Central Volume Allocation issues are assessed.

Impact Assessment Requirements

Implementation of the Proposed Modification would be likely to impact **HHDCs**, due to the need to process data from reconfigured meter registers and issue modified information relating to the Export Party of shared sites via DTN data flows. Note however that no change to data flow structures is proposed.

There is a potential impact on **MOAs** due to reconfiguration of meter registers and meter software upgrades to facilitate the P224 solution. Note that the Proposed Modification is not retrospective. Impact in relation to new shared sites should be minimal, as they would be expected to be compliant; MOA impact would mainly relate to existing shared sites that may be re-registered at the request of a Supplier associated with such a site.

It is anticipated that the impact of the Proposed Modification would be primarily to sites registered in SVA. However, there is a potential for CVA impact, which could affect the **CDCA**.

Following implementation of the Proposed Modification, it is anticipated that **Distributors** would modify their charging processes to bill more accurately due to the revised allocation of Reactive Power flows and new metered information available. Consequentially, **Suppliers, Licence Exemptable Generators** and **Generators** would potentially be impacted by the effect of new charging processes on their DUoS bills.

Parties and Party Agents are requested to review the attached P224 Requirement Specification and respond to the questions included in the response form attached to this circular. Responses are required by **5.00pm on Wednesday 18 June 2008**.

Please let me know as soon as possible if you are unable to meet this deadline, as it may not be possible for the Modification Group to consider late responses. No response to this circular will be taken to mean that your organisation is not impacted by the proposed changes.

For more information on this circular, please contact Dean Riddell on 0207 380 4366 or email dean.riddell@elexon.co.uk.

Dean Riddell
Change Delivery

PLEASE RETURN RESPONSES by 5.00pm on Wednesday 18 June 2008 to:

ELEXON Modifications
4th Floor
350 Euston Road
LONDON
NW1 3AW

Email: modifications@elexon.co.uk

Tel: 020 7380 4361

CPC00636: Impact Assessment of P224

Organisation:	Western Power Distribution (South West) and Western Power Distribution (South Wales) plc.		
Capacity Organisation operates in (e.g. Supplier, HHDC, etc.)	LDSO		
Assessor Name	Graham Smith		
Contact Name (if different to Assessor)		BCA/PACA:	
Contact email:	grsmith@westernpower.co.uk	Phone no:	01752 502208

Please provide responses to the following questions:

Section A – Impact of the P224 Proposed Modification

General Questions

Question 1	Would Proposed Modification P224, as outlined in the attached Requirements Specification, impact your Organisation?
Answer 1	Yes

Question 2	If impacted by the Proposed Modification, please provide a description of the impact, costs and required implementation timescales (from the point of Authority approval) for your organisation.
Answer 2	<p>If implemented, this modification would impact:</p> <ul style="list-style-type: none"> ▪ WPD Half Hourly DUoS billing; ▪ D0268 flow from the Meter Operator to Distributor; ▪ D0036 flow from the HHDC to Distributor and; ▪ E-billing D2021 flow from Distributor to Supplier. <p>Costs – see question 5.</p> <p>Time scale to implement changes to billing processes and associated systems would be approximately 6 to 9 months from Authority approval of final specification of the modification.</p>

Question 3	<p>Do you agree with the Modification Group’s decision that a materiality threshold should not form part of the P224 solution? (i.e. the P224 provisions would apply to all Half Hourly settled Import/Export sites, including those below the 100kW demand threshold and 30kW microgeneration threshold)</p> <ul style="list-style-type: none"> • If you believe that there should be a materiality threshold, what value do you believe would be appropriate, and why? • Do you believe there are any benefits or impacts of not including a materiality threshold that the Group has not identified? Please specify. • Do you believe there are any benefits or impacts of including a materiality threshold that the Group has not identified? Please specify.
Answer 3	Yes

Question 4	Are there any potential P224 Alternative solutions that you believe the Group should consider? Please give details and justification.
Answer 4	None that WPD would propose

Distributor Specific Questions

Question 5	<p>If Proposed Modification P224 is implemented, what would the impact be on your billing procedures?</p> <ul style="list-style-type: none"> • Would you change your billing procedures? • What would be the impact on your billing procedures? • What would be the cost of changing your billing procedures?
Answer 5	<ul style="list-style-type: none"> • Yes. • In order to implement the proposed modification we would need to change our billing procedure for both import and export MPANs. • External charges associated with such modification together with internal costs associated with specifying the required change/testing and implementation would cost circa £70k. There would also be changes to our policy and modification to our charging statements. Total cost perhaps £100k.

Question 6	<p>If Proposed Modification P224 is implemented, what would be the impact on any billing workarounds you use?</p> <ul style="list-style-type: none"> • Would you discontinue your workarounds? • What estimated cost saving would you expect due to discontinuing workarounds?
Answer 6	WPD do not operate any workarounds.

HHDC Specific Questions

Question 7	<p>What impact would Proposed Modification P224 have on your organisation as HHDC? Specific solution aspects for consideration are:</p> <ul style="list-style-type: none"> • Reconfiguration of meter registers by the MOA and receipt of notification of this via the D0268; • Allocation of the six meter register quantities to the appropriate Party, particularly allocation of three quantities to the Export Party; and • Production of amended D0036 and D0275 flows <p>See sections 3.3 and 3.4 for further details.</p>
Answer 7	

MOA Specific Questions

Question 8	<p>What specific impact would Proposed Modification P224, as outlined in the attached Requirements Specification, have on your organisation as an MOA?</p>
Answer 8	

Section B – Evidence of the P224 Issue (see Requirements Specification section 1.2 for further details)

General Questions

Question 9	<p>Do the issues identified by P224 have a material impact on your organisation at present, and do you anticipate that the impact will increase in future?</p> <p>Please provide a quantified or approximate indication of the present and expected materiality of impact on your organisation (and the timescales of any changes).</p> <p>Note that any information provided can be treated as confidential upon request.</p>
Answer 9	No but with increases in generation, in particular wind the impact is likely to increase over time.

Distributor Specific Questions

Question 10	What is the total number of shared Import/Export sites connected to your organisation's network?
Answer 10	Circa 150.

Question 11	<p>What is the number of Import/Export sites connected to your organisation's network that have a related material issue due to inappropriate allocation of volumes?</p> <p>(note that a 'material issue' could be indicated by the use of a workaround or existence of a dispute with the Supplier, or could have been recognised as material for some other reason)</p>
Answer 11	Circa 20

Question 12	<p>What methods, if any, do you currently use to overcome or mitigate current issues caused by inappropriate allocation of Reactive Power?</p> <p>Please provide details of any workaround solutions adopted for impacted sites.</p> <ul style="list-style-type: none"> • How do your workaround processes work? • How effective are the workarounds and what limitations do they have? (e.g. accuracy of charging, omission/absorption of charges)? • What improvement in charging processes would you anticipate if P224 is implemented? (please quantify if possible)
Answer 12	WPD do not operate any workarounds.

Supplier Specific Questions

Question 13	Other than those identified by P224 (e.g. involvement in disputes over Reactive Power charges), are there any further material issues for your organisation as a Supplier due to the issue of misallocated Reactive Power? Please Specify.
Answer 13	

Question 14	<p>Has your organisation experienced any material issues relating to inappropriate allocation of Reactive Power and DUoS charging as described by P224?</p> <ul style="list-style-type: none"> • How many material issues are you currently experiencing? • What is the estimated cost of the material issues? • What is the estimated cost of any other impacts of the issue identified by P224? (please provide details of the impacts)
Answer 14	

Question 15	<p>What savings would you expect if Proposed Modification P224 is implemented?</p> <ul style="list-style-type: none"> • What saving would you expect due to the removal of the material issues? (as described in question 6 above) • What saving would you expect due to any other benefit of the Proposed solution? (please provide details of the benefit)
Answer 15	

Change Proposal Circular

To	BSC Change Administrators (BCAs)/ Party Agent Change Administrators (PACAs)
No.	CPC00636
Purpose	Response Requested
From	Change Delivery
Date	06 June 2008

Impact Assessment of P224 'Reactive Power Flows Associated with Exemptable Generating Plant'

The purpose of this Impact Assessment is twofold:

- A. To determine any costs and impacts of the Proposed Modification for Parties and Party Agents, and to establish any implementation timescales required by Parties and Party Agents for P224. If Parties submit confidential information regarding implementation costs, please clearly indicate this as such. The Group are also seeking early views on whether a volume threshold should be applied to the P224 solution; and
- B. To request information to enable the Group to analyse the scale of the issue identified by P224 and quantify the cost-benefit of the Proposed Modification. It is anticipated that Distributors and Suppliers are best placed to provide such information, but all respondents are invited to supply any information they consider relevant.

Proposed Modification

Proposed Modification P224 seeks to revise the Code to allow Reactive Power volumes to be allocated to the Party responsible for the associated flow of Active Power. The aim is to resolve anomalies in the allocation of Reactive Power flows where a Supplier and Exemptable Generating Plant (such as embedded wind powered generators) share a site with a common metered Boundary Point. At present the Supplier responsible for Active Import is held responsible for some Reactive Power flows caused by operation of the Exemptable Generating Plant, which are assigned to the Import MSID of such shared Import/Export sites.

This issue does not directly affect Settlement but can materially impact Distributors' ability to implement appropriate Distribution Use of System (DUoS) charging. P224 would allow Reactive Power to be more appropriately allocated in relation to these shared sites. The extra data available would allow Distributors to improve their DUoS charging. Although the Modification Proposal considers the issue in relation to Supplier Volume Allocation, the Modification Group is ensuring any Central Volume Allocation issues are assessed.

Impact Assessment Requirements

Implementation of the Proposed Modification would be likely to impact **HHDCs**, due to the need to process data from reconfigured meter registers and issue modified information relating to the Export Party of shared sites via DTN data flows. Note however that no change to data flow structures is proposed.

There is a potential impact on **MOAs** due to reconfiguration of meter registers and meter software upgrades to facilitate the P224 solution. Note that the Proposed Modification is not retrospective. Impact in relation to new shared sites should be minimal, as they would be expected to be compliant; MOA impact would mainly relate to existing shared sites that may be re-registered at the request of a Supplier associated with such a site.

It is anticipated that the impact of the Proposed Modification would be primarily to sites registered in SVA. However, there is a potential for CVA impact, which could affect the **CDCA**.

Following implementation of the Proposed Modification, it is anticipated that **Distributors** would modify their charging processes to bill more accurately due to the revised allocation of Reactive Power flows and new metered information available. Consequentially, **Suppliers, Licence Exemptable Generators** and **Generators** would potentially be impacted by the effect of new charging processes on their DUoS bills.

Parties and Party Agents are requested to review the attached P224 Requirement Specification and respond to the questions included in the response form attached to this circular. Responses are required by **5.00pm on Wednesday 18 June 2008**.

Please let me know as soon as possible if you are unable to meet this deadline, as it may not be possible for the Modification Group to consider late responses. No response to this circular will be taken to mean that your organisation is not impacted by the proposed changes.

For more information on this circular, please contact Dean Riddell on 0207 380 4366 or email dean.riddell@elexon.co.uk.

Dean Riddell
Change Delivery

PLEASE RETURN RESPONSES by 5.00pm on Wednesday 18 June 2008 to:

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4th Floor
350 Euston Road
LONDON
NW1 3AW

Email: modifications@elexon.co.uk

Tel: 020 7380 4361

CPC00636: Impact Assessment of P224

Organisation:	Western Power Distribution		
Capacity Organisation operates in (e.g. Supplier, HHDC, etc.)	MOP		
Assessor Name	Ian Dobson		
Contact Name (if different to Assessor)	Graham Smith	BCA/PACA:	
Contact email:	gsmith@westernpower.co.uk	Phone no:	01752 502208

Please provide responses to the following questions:

Section A – Impact of the P224 Proposed Modification

General Questions

Question 1	Would Proposed Modification P224, as outlined in the attached Requirements Specification, impact your Organisation?
Answer 1	Yes

Question 2	If impacted by the Proposed Modification, please provide a description of the impact, costs and required implementation timescales (from the point of Authority approval) for your organisation.
Answer 2	<p>Need to establish new configurations for meters, establish new registration procedures and document, undertake training.</p> <p>Say, up to £5,000. 3 months. This excludes the time required to make all existing iHH import/export sites compliant, if this has to be undertaken (say a further 12 months). NB although new products are capable of this measurement, older HH meters are not so if this were retrospective, early replacement of meters may be required.</p>

Question 3	<p>Do you agree with the Modification Group’s decision that a materiality threshold should not form part of the P224 solution? (i.e. the P224 provisions would apply to all Half Hourly settled Import/Export sites, including those below the 100kW demand threshold and 30kW microgeneration threshold)</p> <ul style="list-style-type: none"> If you believe that there should be a materiality threshold, what value do you believe would be appropriate, and why? Do you believe there are any benefits or impacts of not including a materiality threshold that the Group has not identified? Please specify. Do you believe there are any benefits or impacts of including a materiality threshold that the Group has not identified? Please specify.
Answer 3	<p>If the MOP could rely on the supplier advising him when to configure and register to P224, then the threshold would be of no consequence on the MOP. However, in reality, suppliers do not understand and rely on the MOP to provide compliant metering. Therefore any threshold needs to be obvious. As there is no difference in cost between “standard” metering and “P224” metering (ignoring the one-off initial cost in Q2), there would be no impact on new installations whatever the threshold. The only impact would be on costs of changing or reconfiguring existing installations. Most exports sites are either well below 30kW, in which case currently there is no reactive charge (and settle NHH), or well above 100kW. The simple rule, “if HH export, make “P224” compliant” would not result in a significant number of unnecessary changes.</p>

Question 4	Are there any potential P224 Alternative solutions that you believe the Group should consider? Please give details and justification.
Answer 4	<p>The modification to the BSC is the correct metrological solution. However, there will be confusion if the measurement quantity RI continues to be used for Import kVAh (regardless of kWh direction), as well as “Import kVAh when import kWh” and “Import kVAh when exporting”. People looking a RI data will not know what it is. Furthermore, figure 3 of the</p>

Question 4	Are there any potential P224 Alternative solutions that you believe the Group should consider? Please give details and justification.
	<p>modification proposal implies the same value of RI is recorded against both the import MPAN and the export MPAN.</p> <p>It is therefore proposed that 4 new measurement quantities should be registered in MDD for the 4 new measurements (eg R1, R2, R3, R4 to coincide with the 4 quadrants)</p> <p>In addition, the HH metering COPs do not require meters to be capable of measuring these separate values. If a meter is configured to record R1 and R3, say, and not RI (Import kVArh) it would be deemed non-compliant. The HH COPs need to be modified to allow the option of recording any of R1, R2, R3, R4, RI, RE, AI (import kWh), AE (Import kWh) as determined by the responsible party and/or site conditions.</p>

Distributor Specific Questions

Question 5	If Proposed Modification P224 is implemented, what would the impact be on your billing procedures? <ul style="list-style-type: none"> • Would you change your billing procedures? • What would be the impact on your billing procedures? • What would be the cost of changing your billing procedures?
Answer 5	No. (We would charge to reconfigure an existing site)

Question 6	If Proposed Modification P224 is implemented, what would be the impact on any billing workarounds you use? <ul style="list-style-type: none"> • Would you discontinue your workarounds? • What estimated cost saving would you expect due to discontinuing workarounds?
Answer 6	N/A

HHDC Specific Questions

Question 7	What impact would Proposed Modification P224 have on your organisation as HHDC? Specific solution aspects for consideration are: <ul style="list-style-type: none"> • Reconfiguration of meter registers by the MOA and receipt of notification of this via the D0268; • Allocation of the six meter register quantities to the appropriate Party, particularly allocation of three quantities to the Export Party; and • Production of amended D0036 and D0275 flows <p>See sections 3.3 and 3.4 for further details.</p>
Answer 7	N/A

MOA Specific Questions

Question 8	What specific impact would Proposed Modification P224, as outlined in the attached Requirements Specification, have on your organisation as an MOA?
Answer 8	As Q1 - Need to establish new configurations for meters, establish new registration procedures and document, undertake training. Depending on timescales to alter existing sites, there may be an impact on resources.

Section B – Evidence of the P224 Issue (see Requirements Specification section 1.2 for further details)

General Questions

Question 9	Do the issues identified by P224 have a material impact on your organisation at present, and do you anticipate that the impact will increase in future? Please provide a quantified or approximate indication of the present and expected materiality of impact on your organisation (and the timescales of any changes). Note that any information provided can be treated as confidential upon request.
Answer 9	N/A

Distributor Specific Questions

Question 10	What is the total number of shared Import/Export sites connected to your organisation's network?
Answer 10	N/A

Question 11	What is the number of Import/Export sites connected to your organisation's network that have a related material issue due to inappropriate allocation of volumes? (note that a 'material issue' could be indicated by the use of a workaround or existence of a dispute with the Supplier, or could have been recognised as material for some other reason)
Answer 12	N/A

Question 12	What methods, if any, do you currently use to overcome or mitigate current issues caused by inappropriate allocation of Reactive Power? Please provide details of any workaround solutions adopted for impacted sites. <ul style="list-style-type: none"> • How do your workaround processes work? • How effective are the workarounds and what limitations do they have? (e.g. accuracy of charging, omission/absorption of charges)? • What improvement in charging processes would you anticipate if P224 is implemented? (please quantify if possible)
Answer 12	N/A

Supplier Specific Questions

Question 13	Other than those identified by P224 (e.g. involvement in disputes over Reactive Power charges), are there any further material issues for your organisation as a Supplier due to the issue of misallocated Reactive Power? Please Specify.
Answer 13	N/A
Question 14	<p>Has your organisation experienced any material issues relating to inappropriate allocation of Reactive Power and DUoS charging as described by P224?</p> <ul style="list-style-type: none"> • How many material issues are you currently experiencing? • What is the estimated cost of the material issues? • What is the estimated cost of any other impacts of the issue identified by P224? (please provide details of the impacts)
Answer 14	N/A
Question 15	<p>What savings would you expect if Proposed Modification P224 is implemented?</p> <ul style="list-style-type: none"> • What saving would you expect due to the removal of the material issues? (as described in question 6 above) • What saving would you expect due to any other benefit of the Proposed solution? (please provide details of the benefit)
Answer 15	N/A



PLEASE RETURN RESPONSES by 5.00pm on Wednesday 18 June 2008 to:

ELEXON Modifications
4th Floor
350 Euston Road
LONDON
NW1 3AW

Email: modifications@elexon.co.uk

Tel: 020 7380 4361

CPC00636: Impact Assessment of P224

Organisation:	SAIC on behalf of: ScottishPower Energy Management Ltd. ScottishPower Generation Ltd. ScottishPower Energy Retail Ltd. SP Manweb plc. SP Transmission Ltd. SP Distribution Ltd		
Capacity Organisation operates in (e.g. Supplier, HHDC, etc.)	Supplier, Distribution, HHDC, MOA		
Assessor Name	Bryan Donnelly		
Contact Name (if different to Assessor)		BCA/PACA:	BCA
Contact email:	ukelectrictyspoc@saic.com	Phone no:	01355845353

Please provide responses to the following questions:

Section A – Impact of the P224 Proposed Modification

General Questions

Question 1	Would Proposed Modification P224, as outlined in the attached Requirements Specification, impact your Organisation?
Answer 1	Yes

Question 2	If impacted by the Proposed Modification, please provide a description of the impact, costs and required implementation timescales (from the point of Authority approval) for your organisation.
Answer 2	<p>It is expected that there would be impact on a number of areas of our business.</p> <p>As an MOA there would be the assessment of meters already in use and the cost of reconfiguring or replacing the existing meter. As an HHDC the ability to receive the 6 registers as opposed to the current 4 would have an associated impact on this part of the business. From a distribution perspective there would be an impact on our DUoS system incorporating the new allocation of reactive energy.</p> <p>From a Settlements perspective, initial responses from St Clements Services in relation to the proposed modification indicate that there would be no changes required to the SONET system in order to accommodate the additional channels</p> <p>From a Distribution perspective we believe that our UoS system would be impacted and that these could potentially be significant</p> <p>To fully conduct analysis of anticipated impact on systems and implement the required changes to systems and business processes we would prefer to see a 9 month implementation period.</p>

Question 3	<p>Do you agree with the Modification Group's decision that a materiality threshold should not form part of the P224 solution? (i.e. the P224 provisions would apply to all Half Hourly settled Import/Export sites, including those below the 100kW demand threshold and 30kW microgeneration threshold)</p> <ul style="list-style-type: none"> • If you believe that there should be a materiality threshold, what value do you believe would be appropriate, and why? • Do you believe there are any benefits or impacts of not including a materiality threshold that the Group has not identified? Please specify. • Do you believe there are any benefits or impacts of including a materiality threshold that the Group has not identified? Please specify.
Answer 3	<p>We would support the Group's position that a materiality threshold should not be part of the solution.</p> <p>Not having a threshold may be beneficial for a Supplier with smaller import sites which are often associated with a larger export site – for example a wind farm with a small import heating/lighting type substation supply which may otherwise be excluded due to a 100kW limit</p>

Question 4	Are there any potential P224 Alternative solutions that you believe the Group should consider? Please give details and justification.
Answer 4	No

Distributor Specific Questions

Question 5	<p>If Proposed Modification P224 is implemented, what would the impact be on your billing procedures?</p> <ul style="list-style-type: none"> • Would you change your billing procedures? • What would be the impact on your billing procedures? • What would be the cost of changing your billing procedures?
Answer 5	<p>We envisage changes to our billing procedures within our DUoS system as it would mean a change to the methodology we currently use to assign reactive charges. Charges are as yet unknown but as previously stated could be significant</p>

Question 6	<p>If Proposed Modification P224 is implemented, what would be the impact on any billing workarounds you use?</p> <ul style="list-style-type: none"> • Would you discontinue your workarounds? • What estimated cost saving would you expect due to discontinuing workarounds?
Answer 6	<p>We would have to conduct a cost benefit analysis on both methods to decide on whether to continue with our current methodology. If we were to change to a P224 solution this would not lead to any savings, but would in fact have a cost impact in terms of implementing and changing our current processes.</p>

HHDC Specific Questions

Question 7	<p>What impact would Proposed Modification P224 have on your organisation as HHDC? Specific solution aspects for consideration are:</p> <ul style="list-style-type: none"> • Reconfiguration of meter registers by the MOA and receipt of notification of this via the D0268; • Allocation of the six meter register quantities to the appropriate Party, particularly allocation of three quantities to the Export Party; and • Production of amended D0036 and D0275 flows <p>See sections 3.3 and 3.4 for further details.</p>
Answer 7	<p>We do not expect there to be any serious issues</p>

MOA Specific Questions

Question 8	<p>What specific impact would Proposed Modification P224, as outlined in the attached Requirements Specification, have on your organisation as an MOA?</p>
Answer 8	<p>Due to the mod, if successful, being implemented for all new plants or re-registered plants it is not envisaged to have a major impact. However, where a plant is re-registered there could possibly be a site inspection to identify the installed meter to assess whether re-configuration or replacement will be required. However operationally it is not anticipated that this will be a major issue.</p>

Section B – Evidence of the P224 Issue (see Requirements Specification section 1.2 for further details)

General Questions

Question 9	<p>Do the issues identified by P224 have a material impact on your organisation at present, and do you anticipate that the impact will increase in future?</p> <p>Please provide a quantified or approximate indication of the present and expected materiality of impact on your organisation (and the timescales of any changes).</p> <p>Note that any information provided can be treated as confidential upon request.</p>
Answer 9	<p>We are aware of a growing number of sites which are causing the issue highlighted in this modification. This is having a financial impact on our business and is expected to grow as more Exemptable plant come online.</p>

Distributor Specific Questions

Question 10	What is the total number of shared Import/Export sites connected to your organisation's network?
Answer 10	We believe there to be 99 in MANW and 81 in SPOW

Question 11	<p>What is the number of Import/Export sites connected to your organisation's network that have a related material issue due to inappropriate allocation of volumes?</p> <p>(note that a 'material issue' could be indicated by the use of a workaround or existence of a dispute with the Supplier, or could have been recognised as material for some other reason)</p>
Answer 11	<p>As ScottishPower use a robust methodology as described throughout this document which is used in all these instances, the answer would have to be all sites are affected if we answer by the definition of 'material issue' given in the question</p>

Question 12	<p>What methods, if any, do you currently use to overcome or mitigate current issues caused by inappropriate allocation of Reactive Power?</p> <p>Please provide details of any workaround solutions adopted for impacted sites.</p> <ul style="list-style-type: none"> • How do your workaround processes work? • How effective are the workarounds and what limitations do they have? (e.g. accuracy of charging, omission/absorption of charges)? • What improvement in charging processes would you anticipate if P224 is implemented? (please quantify if possible)
Answer 12	<p>ScottishPower distribution uses a robust charging methodology (detailed in our use of system charges document) which enables us to mitigate the issue being resolved by P224. When receiving the export and import data we associate the two MPANs allowing us to, in our view, correctly assign the reactive charges.</p>

Supplier Specific Questions

Question 13	Other than those identified by P224 (e.g. involvement in disputes over Reactive Power charges), are there any further material issues for your organisation as a Supplier due to the issue of misallocated Reactive Power? Please Specify.
Answer 13	Validation of DUOS charges (capacity and reactive power) is a problem due to the lack of visibility of all channels where only one part of the supply is registered. Time is often wasted trying to manually validate and understand these issues. Excessive charges are difficult to pass through to the customer.
Question 14	<p>Has your organisation experienced any material issues relating to inappropriate allocation of Reactive Power and DUoS charging as described by P224?</p> <ul style="list-style-type: none"> • How many material issues are you currently experiencing? • What is the estimated cost of the material issues? • What is the estimated cost of any other impacts of the issue identified by P224? (please provide details of the impacts)
Answer 14	We have experienced a number of material issues. However, we cannot currently supply these figures at the current time and our representative on the modification group will supply these when they are available
Question 15	<p>What savings would you expect if Proposed Modification P224 is implemented?</p> <ul style="list-style-type: none"> • What saving would you expect due to the removal of the material issues? (as described in question 6 above) • What saving would you expect due to any other benefit of the Proposed solution? (please provide details of the benefit)
Answer 15	From a Settlements / Supplier viewpoint we would expect to see cost savings from the correct allocation of reactive energy charges on sites where we are the Import Supplier. There would also be the benefit of being able to correctly validate DUoS bills from Distribution companies.