

Stage 04: Draft Modification Report

What stage is this document in the process?

01 Initial Written Assessment

02 Definition Procedure

03 Assessment Procedure

▶ 04 Report Phase

P265: Improving the Accuracy of the Credit Calculation (P253 Alternative solution)

P265 seeks to improve the accuracy of the credit calculation by amending the way Bank Holidays are used in the II run calculations and making the calculations more robust in situations where Grid Supply Point Group Take approaches zero.

P265 was originally an alternative solution developed by the P253 Modification Group. It addresses only 2 of the 3 issues which P253 covers, but it removes P253's impact on participants.



Initially, the Panel recommends:
Approval of P265



High Impact:
Supplier Volume Allocation Agent, Settlement Administration Agent

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Any questions?

Contact:
Andrew Wright



andrew.wright@elexon
.co.uk



0207 380 4363

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About this document:

This document is a Draft Modification Report, which ELEXON is issuing for industry consultation. We invite your views on the Panel's initial recommendations as set out in this report. We will present all responses to the Panel on 14 October 2010, when the Panel will agree a final view on whether or not this change should be made.

This is the **main document**. It outlines the solution, impacts, costs, benefits and implementation approach for the change. It includes the Panel's initial recommendation on whether the change should be approved.

Attachment A is the Detailed Assessment document. P265 was originally developed as a potential alternative solution to P253, and this document contains the P253 Group's full discussion of the requirements and merits of this solution. Please note, references to the P253 potential Alternative solution and P265 are used interchangeably as they are identical.

Attachment B contains the P253/P265 analysis which informed the Group's views. All analysis of the P253 Alternative is relevant to P265.

Attachment C contains the draft legal text.

Attachment D is the Report Phase Consultation questions and response form. We invite you to respond to the questions in this form.

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Why Change?

Parties have to lodge credit with ELEXON in order to cover their Trading Charges for the 29 day period between the Settlement Day and the Initial Settlement (SF) Run. To calculate the required credit cover, an Interim Information (II) run is carried out 5 Working Days after the Settlement Day.

Currently the II run uses actual Metered Volumes from the Central Volume Allocation (CVA) market, but only estimated data for the Supplier Volume Allocation (SVA) market. This method of estimating Metered Volumes at the II Settlement Run causes the following issues:

- There can be inaccuracies in the forecasting of SVA data (particularly embedded intermittent generation);
- The estimation technique does not correctly forecast usage around a Bank Holiday;
- The estimation technique uses a percentage of Grid Supply Point Group Takes (GSPGTs) in its calculations. An increase in embedded generation in some Grid Supply Points (GSPs) has resulted in GSPGTs approaching zero, making the credit calculations significantly inaccurate.

P265 addresses the second and third issues. A separate but related Modification Proposal, P253, seeks to address all three issues.

Solution

The P265 solution would amend the way the BSC Systems estimate SVA Metered Volumes for the credit calculation by:

- More accurately estimating usage on Bank Holidays; and
- Making the credit calculations more robust to when the GSPGT approaches zero, by changing the algebra used by the SAA to estimate Metered Volumes for Supplier BM Units at the II Run.

Impacts & Costs

P265 would only impact the Supplier Volume Allocation Agent (SVAA) and Settlement Administration Agent (SAA). The estimated combined BSC Agent and ELEXON implementation cost is £168,700.

Unlike P253, P265 has no impact on participants because its solution uses estimated rather than actual data.

Implementation

The Modification Group and the Panel recommend that P265 should be implemented on:

- **03 November 2011** if an Authority decision is received on or before 19 November 2010; or
- **23 February 2012** if the Authority decision is received after 19 November 2010 but on or before 23 February 2011.

The Case for Change

The Panel unanimously believes that P265 will **better facilitate the achievement of Applicable BSC Objectives (c) and/or (d)** as it will:

- increase Parties' certainty and confidence in the credit calculation, reducing the need for Parties to lodge more credit than is required and therefore assisting new entrants and smaller Parties, who generally have more difficulties in lodging credit;
- resolve some of the current problems with estimating Bank Holidays and where GSPGT approaches zero; and
- lead to a reduction in the number of Material Doubt claims.

Related Change – P253

Modification P253 'Improving the accuracy of the Credit calculation' was raised in March 2010 and is in the final Report Phase of its progression. The solution which the Group has developed for P253 requires both Non Half Hourly (NHH) and Half Hourly (HH) Data Aggregators (DAs) to submit actual data to SVAA much quicker than under the current credit calculation process. In turn it would require HH Data Collectors (DCs) to submit data quicker to DAs.

Noting that this solution may have potentially large costs to DAs and DCs, the P253 Modification Group developed a potential Alternative solution which would only impact the BSC central systems. The Group fully developed this solution, but was unable to take it forwards under P253 as it was less supported than the P253 Proposed solution.

In order not to waste the Group's development work, and to ensure that the Authority can consider both options together, the Proposer has raised P265 to progress the P253 Alternative solution. See section 4 for further information.

We are issuing the P253 and P265 consultations in parallel. You can find the P253 consultation documents [here](#).

Recommendations

The Panel initially and unanimously recommends that P265 should be approved.

The Panel considers that both P253 and P265 are better than the current credit calculation, but currently considers that P253 more fully addresses the issues and is therefore the better solution.

2 Why Change?

How does the Credit Calculation currently work?

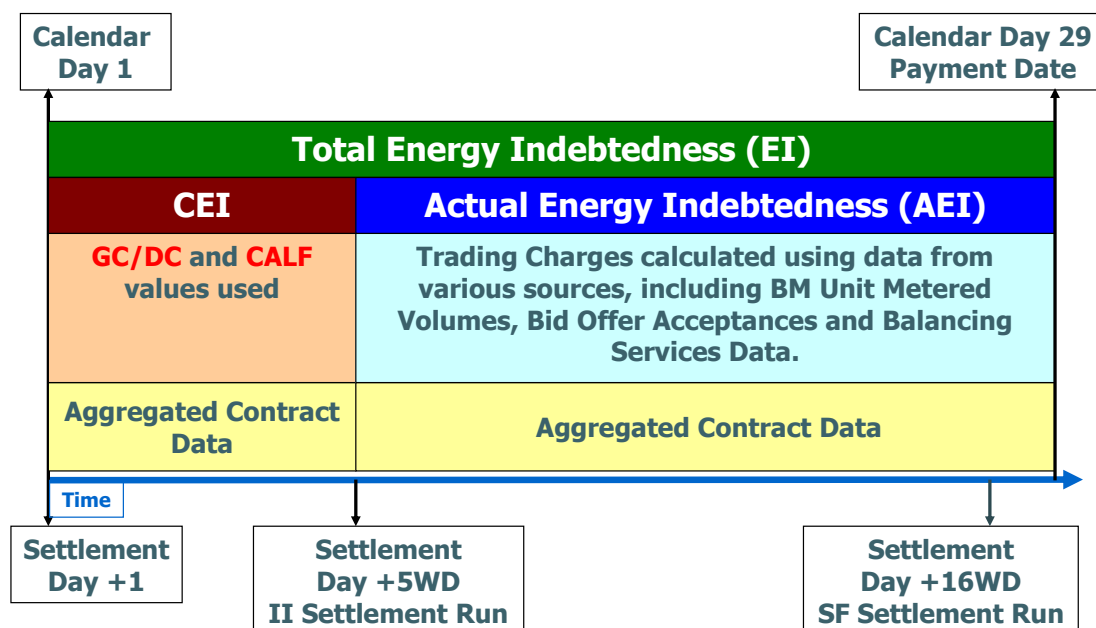
The Initial Settlement (SF) Run takes place 29 days after the Settlement Day. The SF Run determines what Trading Charges a Party owes, or is owed. Parties are required to lodge credit with ELEXON in order to cover their Trading Charges for the 29 day period between the Settlement Day and the SF Run. This ensures ELEXON has enough collateral to cover the Trading Charges if a Party cannot make them.

In order to estimate the amount of credit a Party may need to lodge, the BSC Systems calculates their Energy Indebtedness. This is an estimation of a Party's imbalance volume over the 29 day period.

For each Settlement Period the Energy Indebtedness is made up of:¹

- **Credit Assessment Energy Indebtedness (CEI)** – an estimate of Energy Indebtedness used until we gather metered data after 5 Working Days. It is based on each BM Units contractual position at Gate Closure, the estimated position based on the Credit Assessment Load Factor (CALF) and the capacity of the BM Unit called Generating Capacity (GC) or Demand Capacity (DC);
- **Actual Energy Indebtedness (AEI)** – an estimate of a Party's Trading Charges for a given Settlement Period. Once it has been calculated 5 Working Days after the Settlement Day, AEI replaces CEI.

Figure 1: High level example of the Credit Calculation



P265 is looking to change the way that we calculate Actual Energy Indebtedness, so it is worth looking more closely at how we calculate AEI.

Actual Energy Indebtedness

As noted above, AEI is an estimate of a Party's Trading Charges for a given Settlement Period. To calculate this estimate, the BSC Systems carry out an II Run 5 Working Days after the Settlement Day. For Central Volume Allocation (CVA) BM Units we have actual Metered Volumes which to calculate Trading Charges for the II Run. However, the Metered

¹ Energy Indebtedness for Credit Qualifying BM Units is calculated slightly differently. Please see our [guidance note](#) for further information.

Volumes for Supplier Volume Allocation (SVA) BM Units are not available, so we have to estimate SVA Metered Volumes.

We estimate the SVA Metered Volumes by looking at the proportion of GSPGT (the total energy consumed by a specific GSP Group) that a Supplier used on a similar day that has completed its SF Run (approximately 3 weeks previously to the Settlement Day). For example, if today is a Thursday then we would look back to a Thursday 3 weeks ago where the SF Run is complete. We then multiply this proportion by the GSPGT for the Settlement Period in question to get an estimated Metered Volume.

For more details of the current II Run calculation algebra, see Attachment A Section 1.

What's the issue?

This current method of estimating Supplier BM Unit Metered Volumes at the II Settlement Run causes the following issues:

- **There can be inaccuracies in the forecasting of SVA data** - some HH SVA sites (such as wind generation) don't follow a regular profile and can be unpredictable. This means that the electricity generated (or used) 3 weeks ago may not have a clear relationship with the current generation and therefore is not accurately reflected in II data.
- **The current method does not work for Bank Holidays** - a Supplier with mainly business customers would see considerably different Metered Volumes on Working Days and Bank Holidays. The current estimation method does not take this into account.
- **The increase in embedded generation in some GSP Groups is causing the GSPGTs to approach zero** – Since SVA Metered Volumes are based on a percentage of GSPGT, the reduction in GSPGT makes it increasingly likely that the Metered Volumes are not reflective of changes in an individual Supplier's position. This issue is likely to become more apparent as the level of embedded generation increases and the GSPGT for the calculation reference day approaches zero. As GSPGT approaches zero the current algebra causes both the estimated BM Unit Metered Volumes used in the credit calculation and the associated credit cover requirement to tend towards infinity. This then leads to Suppliers raising material doubt claims as the Supplier BM Unit Metered Volume is clearly incorrect.

P253 seeks to address all 3 of these issues using actual data earlier in the calculation. P265 seeks to address 2 of these issues (those relating to Bank Holidays and GSPGT) using estimated data, and does not provide a solution for forecasting intermittent/unpredictable generation.

Material Doubt Claims

If a Party's indebtedness is under or overestimated, they can lodge a Material Doubt claim. An increase in the number of Material Doubt claims raised increases both cost and risk.

Cost increases as additional work is required from both the Party raising the claim and ELEXON to gather supporting evidence, re-submit data every time there is a change in data (usually every Working Day) and carry out analysis. Therefore each Material Doubt claim has a cost implication for both ELEXON and the Party.

Risk increases, as whilst the Material Doubt claim is investigated a Party will bypass the credit calculation process. This makes it much more difficult to pick up a Defaulting Party.

Thus increasing the likelihood of exposing other Parties to the risk of a Party defaulting when they have a Material Doubt claim active.

Over the last year, 95% of all Material Doubt claims were related to unrepresentative indebtedness calculations. Increasing the accuracy of the credit calculation would reduce this figure.

The P265 solution would only impact BSC Agents and ELEXON. It removes P253's impact on participants by using more accurate estimated data rather than actual data. It only addresses 2 of the 3 issues identified by P253 by:

- Amending the way Bank Holidays are more accurately estimated; and
- Making the credit calculations more robust to when the GSPGT approaches zero by changing the algebra used by the SAA to estimate Metered Volumes for Supplier BM Units at the II Run.

P265 does not address the inaccuracies in forecasting intermittent/unpredictable generation, which forms part of the P253 solution. P253 and P265 are mutually exclusive solutions (i.e. only one of them could be approved and implemented).

Bank Holiday BSC Central Systems changes

SVA Metered Volumes are estimated by looking at the proportion of GSPGT that a Supplier used on a similar day that has completed its SF Run (approximately 3 weeks previously to the Settlement Day).

A problem is caused when Bank Holidays enter the equation, as there is significant difference in usage on a Bank Holiday when compared to the same day of the week (for example a Bank Holiday Monday with an normal Monday). This is particularly noticeable for Suppliers with large portfolios of business customers.

How to resolve the issue

To ensure that the Settlement Days remain consistent, under P265 Bank Holidays shall no longer be used as the previous Settlement Day when estimating Supplier BM Unit Metered Volumes for the Interim Information Run. For a given Settlement Day, the most recent previous Settlement Day that will be used in the calculations shall be:

- The same day of the week as the Settlement Day;
- Not a clock change day;
- A day on which an Initial Settlement (SF) Run has taken place; and
- Not a Bank Holiday.

Where the Settlement Day being estimated is a Bank Holiday, the SVAA shall use the first Sunday on which an Initial Settlement Run has taken place.

This solution will only apply to Bank Holidays in England and Wales. The P253 Group did consider applying the solution to Scottish Bank holidays, but the analysis undertaken was clear that applying the Bank Holiday solution to Scottish Bank Holidays actually increased the error in the credit calculation. Hence the Group used the analysis to agree the P253 Alternative/P265 solution would not include Scottish Bank Holidays. See Attachments A and B for further information.

Changing the algebra used to estimate Metered Volumes for Supplier BM Units

The second element of P265 seeks to reduce the impact where GSPGT approaches zero. To do this, P265 would change the algebra used by the SAA II Run to estimate Metered

Volumes for Supplier BM Units. Full details of the revised algebra are provided in Attachment A Section 6, but the key principles can be summarised as follows:

- Instead of **multiplying** the Metered Volumes from the previous period by a factor, the new algebra **adds** a share of the change in GSPGT to each Metered Volume.
- The amount of energy allocated to each Supplier BM Unit depends on the gross total of Import and Export for each BM Unit (not just the net Metered Volumes). This requires the SVAA to send additional information to the SAA.

Legal text

We have provided the draft P265 legal text in Attachment C. The Group and the Panel have reviewed this text and believe it delivers the intention of P265.

Report Phase Consultation question

Do you agree that the legal text delivers the intention of P265?

Please respond using Attachment D.

4 Interaction with P253

Why was the P265 not progressed under P253?

When comparing the Proposed and potential Alternative solutions the majority of the P253 Group believed that the Proposed solution would resolve all 3 of the identified issues (forecasting embedded generation, GSPGT approaching zero and the use of Bank Holidays). And it would be an enduring solution which would improve the credit calculation for all Settlement Periods using actual data. The Group also believed that the potential Alternative solution was only a partial solution, as it only applies to particular points in time (Bank Holidays and moments when GSP Group take approaches zero). It would also be a less accurate solution than P253, since it would still rely on (albeit better) estimated data.

Under the BSC a Modification Group only can progress an Alternative Modification where the majority of the Group believes the Alternative Modification is better than the Proposed Modification. The Group noted that the potential Alternative Modification was clearly better than the current arrangements and was disappointed that it could not progress it alongside the Proposed Modification in order to allow Ofgem to consider both solutions.

P265 raised

The Group noted that a Party could raise the Alternative Modification as a separate Modification Proposal. The P253 potential Alternative has been subsequently raised as P265 by a member of the Group. This ensures that a supported and developed solution is not wasted, and provides the Authority the opportunity to view P253 Proposed solution alongside the potential Alternative.

Attached to this document are the detailed analysis and Group's discussion for P253. This includes all debate and analysis completed on P265 (as the P253 Alternative).

5 Impacts & Costs

Implementation Costs

ELEXON Cost		ELEXON Service Provider cost	Total Cost
Man days	Cost		
180	£43,200	£125,500	£168,700

Impacts

BSC Parties / Party Agents

P265 would not directly impact Parties or Party Agents.

Impact on BSC Systems and process

BSC System	Potential impact
SAA	<p>The SAA systems would be amended to:</p> <ul style="list-style-type: none"> more accurately estimate Supplier BM Unit Metered Volumes for the II Run for Bank Holidays; load Gross Volumes; and use different algebra for the II Run to estimate Metered Volumes.
SVAA	<p>The SVAA would be required to:</p> <ul style="list-style-type: none"> send Gross Volumes to the SAA.

Impact on BSC Agent/service provider contractual arrangements

No impact identified

Impact on ELEXON

Area of ELEXON's business	Potential impact
Credit cover management	The improved credit calculation should decrease the number of Material Doubt claims ELEXON has to assess for Bank Holiday periods and where GSPGT approaches zero.

Impact on Code

Code section	Potential impact
Annex S-2	Introduce definition for BM Unit Allocated Gross Volume.
T4	Amend SVA data estimation rules and obligate SVAA to send data to SAA.
Annex X-1	Introduce definition for BSC Bank Holiday.
Annex X-2	Introduce summation for calculating BM Unit Allocated Gross Volume.

Impact on Code Subsidiary Documents

CSD	Potential impact
SAA and SVAA User	The SAA would be amended to more accurately estimate

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Impact on Code Subsidiary Documents	
CSD	Potential impact
Requirements Specification/ Service Description	Supplier BM Unit Metered Volumes for the II Run for Bank Holidays.
IDD Part 2	Amend the SAA-I007 flow from SVAA to SAA to provide Gross Volumes to SAA.

6 Implementation

The Group and the Panel recommend that P265 should be implemented on:

- **3 November 2011** if an Authority decision is received on or before **19 November 2010**; or
- **23 February 2012**, if the Authority decision is received after **19 November 2010** but on or before **23 February 2011**.

Report Phase Consultation Question

Do you agree with the Panel's suggested Implementation Date?

Please respond using Attachment D.

7 Cost-Benefit Analysis

The P253 Modification Group sought to place a financial value on the benefit that BSC Parties would gain by modifying the Credit Calculation in line with the P253 Alternative (P265). In summary, the findings are that P265 offers only very modest benefits over the current baseline (and therefore significantly less benefits than P253). For the period analysed (i.e. BSC Year 2009/10) the benefits were as follows:

- 1) The total excess Credit Cover required from Parties as a result of errors in the II estimation process would be **£14.9m** under P265, compared to **£15.4m** under the current baseline. This equates to an annual credit cost saving of **£5k** for Parties whose Energy Indebtedness is currently overestimated.
- 2) For those Parties whose Credit Cover requirement was too low (due to errors in the II estimation process), the average under-estimation across the year was **£185k** under P265 (compared to **£260k** under the current baseline). P265 would reduce the underestimation for underestimated Parties by an average of **£75k**.
- 3) The average across all Parties of how much unsecured debt they would have if they went into Default with the minimum allowable Credit Cover at the worst possible point in the year was **£2.70m** under P265 (compared to **£2.99m** under the current baseline). So P265 would reduce the potential unsecured debt by an average of **£0.3m**.

See Attachment B pages 54 to 58 for more details of how we calculated the benefits.

Conclusion

The Group believed that the estimated benefits of P265 would outweigh the known costs. The Group noted that although the benefits are lower than P253, the costs were also likely to be lower.

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P265 compared to the current arrangements

The Group's unanimous view is that P265 solution should be the minimum change that is approved as a result of its investigation. It unanimously believes that P265 is better than the current arrangements and **better facilitates Applicable BSC Objective (d)** as it would:

- Improve the way the credit calculation estimates usage around Bank Holidays and in situations where GSPGT approaches zero; and
- Reduce the number of Material Doubt claims raised due to Settlement Days where a Bank Holiday is currently used as a reference day or where GSPGT approaches zero.

The majority of the Group believes that P265 also **better facilitates Applicable BSC Objective (c)** as it would:

- Increase Parties' certainty and confidence in the credit calculation, reducing the need for Parties to lodge more credit than is required and therefore assisting new entrants and smaller Parties, who generally have more difficulties in lodging credit.

P265 compared to P253

The Group considered whether P265 (then the potential P253 Alternative) was better than the original P253 solution. The **majority** of the Group believes that the original P253 solution **better facilitates Applicable Objectives (c) and (d) when compared to P265** as:

P253 is better under Applicable Objective (c)

- P253 would give Parties a more accurate view of their credit exposure. This would increase certainty and confidence in the credit calculation. It would allow some Parties to reduce their credit, as they current lodge much more credit than is required by their Energy Indebtedness calculation. This would increase competition as new entrants and smaller Parties, who generally have more difficulties in lodging credit, would need to go less 'long' when lodging credit.

P253 is better under Applicable Objective (d)

- P253 offers the more accurate credit calculation as it applies to embedded generation, the GSPGT issue and the Bank Holiday issue. P265 is a partial solution. It applies to particular points in time – Bank Holidays and moments when GSPGT approaches zero. However, P253 would be an enduring solution which would improve the credit calculation for all Settlement Period. It would also improve the accuracy of the credit calculation with regards to estimating embedded generation.
- P253 would reduce unsecured credit risk, which P265 may not do.
- P253 would more accurately model the changes in Energy Indebtedness around the contract change periods. P265 would not improve this.

A **minority** of the Group thought that **P265 better facilitated Applicable Objective (d) when compared to P253** as:

P265 is better under Applicable Objective (d)

- P265 offers a more appropriate approach as it delivers some of the benefits of the P253 without impacting the industry to the same extent.
- P253 could be potentially more expensive to implement for Party Agents than P265 (which should not impact Party Agents).

Straight to Report Phase

The Panel questioned whether P265 would benefit from being sent to an Assessment Procedure. ELEXON commented that P265 was identical to the P253 potential Alternative, which was fully developed and assessed by the P253 Modification Group. It was impact assessed, consulted upon and Group members had provided views against the Applicable BSC Objectives. However, it could not be progressed as the P253 Alternative Modification as the majority of the Group preferred the P253 Proposed Modification. As such, despite being newly raised, P265 has effectively undergone a full Assessment Procedure and should go directly to the Report Phase. The Panel agreed.

P265 legal text

The Panel noted that the P265 legal text had been developed by the P253 Modification Group during the progression of the P253 potential Alternative. ELEXON informed the Panel that one of the Group members had provided late comments on the legal text. ELEXON would respond to these comments as part of the Report Phase Consultation along with any other comments received during the consultation.

Panel's initial views against the Applicable BSC Objectives

The Panel unanimously believed that P265 would better facilitate the Applicable BSC Objectives when compared to the current arrangements.

Panel Members identified benefits against **Applicable BSC Objectives (c) and/or (d)** for the same reasons as noted in Section 7, although not all Panel Members agreed with all arguments. Some Panel Members did not agree with the Group's identified benefits to Objective (c), as they believed previous credit changes had shown that overcollateralised Parties do not necessarily reduce their credit cover as a result of a more accurate calculation.

One Panel Member did not give views against the Objectives, as they had been a member of the P253 Modification Group.

Report Phase Consultation question

Do you agree with the Panel's view that the Proposed Modification should be approved?

Please respond using Attachment D.

Comparison of the benefits of P253 and P265

One Panel Member requested a comparison of the total quantified potential benefits of P253 compared with P265. The potential benefits are as follows:

Benefits of P253 and P265		
Benefit	P253	P265
Reduction in credit costs for over-secured Parties	£154k	£5k
Reduction in possible exposure from an under-secured Party going into administration (worst-case scenario)	£234k	£75k
Reduction in possible exposure from a Party reducing its credit cover before entering Section H Default (worst-case scenario)	£3.0m	£0.3m

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However, ELEXON noted caution in directly comparing the potential benefits of P253 and P265. As the P253 uses actual Metered Volumes we can be far more confident that the P253 calculation would correctly calculate Parties' Energy Indebtedness, and hence more confident in the benefits. Even though P265 would improve the estimate of credit, it would still be using an estimate, and may still be prone to over or under estimating Parties' Energy Indebtedness.

Panel's comparison of P265 against P253

Of those members who expressed a view, the Panel initially prefers **P253** compared to P265. The Panel believes that, despite the additional industry implementation costs, P253 provides a better and more enduring solution than P265.

Report Phase Consultation question

Do you agree with the Panel's view that P253 is better than P265?

Please respond using Attachment D.

10 Recommendations

Having considered the P265 Initial Written Assessment, the BSC Panel provisionally recommends:

- that Proposed Modification P265 should be made;
- an Implementation Date of:
 - 03 November 2011 if an Authority decision is received on or before 19 November 2010; or
 - 23 February 2012 if the Authority decision is received after 19 November 2010 but on or before 23 February 2011.
- the proposed text for modifying the Code, as set out in Attachment C.



Recommendation

The Panel initially and unanimously recommends that P265 should be approved.

The Panel has assessed P253 and P265 separately against the current arrangements. However, it provisionally prefers P253 to P265.

11 Further Information

More information is available in:

Attachment **A**: Detailed Assessment

Attachment **B**: P253/P265 Analysis

Attachment **C**: Proposed Modification draft legal text

Attachment **D**: Report Phase Consultation questions and response form

All other related document are available on the [P265 page](#) of the ELEXON website.