

**Stage 03: Assessment Procedure Consultation**

P304 'Reduction in PAR from 500MWh to 250MWh'

This Modification has been raised to progress changes to the Price Average Reference value following the Electricity Balancing Significant Code Review, and proposes to reduce the PAR value from 500MWh to 250MWh ahead of winter 2014/15.

This Assessment Procedure Consultation for P304 closes:

5pm on Wednesday 20 August 2014

The Workgroup may not be able to consider late responses.

This Modification is expected to impact:

- ELEXON
- BSC Parties

What stage is this document in the process?

01 Initial Written Assessment

02 Definition Procedure

03 Assessment Procedure

04 Report Phase

P304
Assessment Procedure
Consultation

30 July 2014

Version 1.0

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Any questions?

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About This Document

The purpose of this P304 Assessment Procedure Consultation is to invite BSC Parties and other interested parties to provide their views on the merits of P304. The P304 Workgroup will then discuss the consultation responses, before making a recommendation to the BSC Panel at its meeting on 11 September 2014 on whether or not to approve P304.

There are five parts to this document:

- This is the main document. It provides details of the solution, impacts, costs, benefits, drawbacks and proposed implementation approach. It also summarises the Workgroup's key views on the areas set by the Panel in its Terms of Reference, and contains details of the Workgroup's membership and full Terms of Reference.
- Attachment A contains the initial analysis results using a PAR value of 100MWh.
- Attachment B contains the initial analysis results using a PAR value of 250MWh.
- Attachment C contains the initial analysis results using a PAR value of 350MWh.
- Attachment D contains the specific questions on which the Workgroup seeks your views. Please use this form to provide your response to these questions, and to record any further views or comments you wish the Workgroup to consider.

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Why Change?

The existing imbalance arrangements have the effect of dampening imbalance price signals, meaning that they do not provide sufficient indication to the market of the value of flexible capacity when margins are tight. A leading cause of this price dampening is the level of PAR, which is currently set at 500MWh. Deriving a weighted average from a volume of 500MWh creates an imbalance price which does not reflect the marginal cost of balancing energy for a given Settlement Period.

Solution

This Modification proposes a reduction in the PAR volume from 500MWh to 250MWh. This will improve the strength of imbalance price signals during winter 2014/15.

Impacts & Costs

We do not anticipate any direct impacts on BSC Parties due to the implementation of P304. BSC Parties may be indirectly impacted by the effects of the reduced PAR value on imbalance prices.

Implementation

The Workgroup recommend an Implementation Date for P304 of **31 October 2014** if an Authority decision is received on or before 24 October 2014.

Recommendation

As part of its assessment of P304, the Workgroup has requested that ELEXON conduct extensive analysis using PAR values of 100MWh, 250MWh and 350MWh.

ELEXON is currently completing a portion of this analysis in parallel with the Assessment Consultation. As the Workgroup has not been able to assess the results of this portion of the analysis, it is not able to make an initial recommendation to the industry on whether or not it will put forward an alternative solution containing a PAR value different to that of the proposed.



Imbalance Pricing Guidance Note

More detail on imbalance prices and how they are calculated can be found in our [Imbalance Pricing Guidance Note](#).

What are imbalance prices?

Imbalance prices, which are known as 'cash-out' prices, are a key part of the wholesale electricity trading arrangements in Great Britain.

Under the current arrangements, market participants that require electricity for their customers (Suppliers) enter into contracts with organisations that produce electricity (generators). However, contracts between these participants are not always exactly delivered in real time causing an imbalance between energy generation and demand on the Transmission System. This can cause problems as electricity cannot be stored economically in large quantities and generation must always balance out consumer demand in real time.

For any given Settlement Period (each half hour), Parties may trade with each other up to Gate Closure, which occurs one hour prior to that Settlement Period. Parties aim to balance their position for a given Settlement Period by Gate Closure to ensure that the amount of energy generated and consumed matched the amount of energy bought and sold. However, there are circumstances where this does not happen. For example, if a generator experiences an unexpected outage that does not allow them to generate their projected amount of energy, or if a Supplier over or under estimates the amount of energy their customers actually use. This leaves the Parties' in an imbalanced position for that Settlement Period.

To balance the Transmission System the Transmission Company acts as System Operator (SO) and assesses the amount of generation contracted and the amount of demand expected for each Settlement Period. If required, the SO will take balancing actions¹ to balance the system so that the total amount generated matches the total amount consumed. The SO does this by issuing Bids and Offers via the Balancing Mechanism or Balancing Service Adjustment Actions (BSAA)² to participants (usually generators) to increase or decrease the amount of energy they need to produce (or consume) to ensure the system is balanced. It will do this prior to and throughout the Settlement Period to ensure the system is balanced at all times.

Following the end of a Settlement Period, ELEXON will compare the amount of energy each Party contracted with its metered volumes for the Settlement Period, accounting for any accepted Bids and Offers. Any surplus or shortfall that the Party has is called the imbalance volume and is paid for using the relevant imbalance price:

- If the Party is **short** (it consumed more energy than it had bought or sold more energy than it had generated) then it pays for its shortfall at the **System Buy Price** (SBP).
- If the Party is **long** (it generated more energy than it had sold or bought more energy than it had consumed) then it is paid for its surplus at the **System Sell Price** (SSP).

¹ A balancing action is an instruction to a Party, in accordance with agreed rules, to either increase or decrease generation, or increase or decrease demand. Parties must also submit details of their contracts to the BSC Systems.

² Balancing Service Adjustment Actions (BSAA) are the technical services that the System Operator purchases outside the Balancing Mechanism. This is described in Balancing Services Adjustment Data Methodology Statement.

There are two methods for calculating the imbalance price:

- The **Main Price** is based on the costs of energy balancing actions incurred to the Transmission Company for that Settlement Period.
- The **Reverse Price** is based on the short term market price of wholesale electricity traded on the power exchanges for that Settlement Period.

The method (Main Price or Reverse Price) which is to be applied to an imbalance price (SBP or SSP) for each Settlement Period is determined by whether the system as a whole was long (Net Imbalance Volume (NIV) is zero or negative) or short (NIV is positive) for that Settlement Period:

- If the system is long, the SSP will be the Main Price and the SBP will be the Reverse Price.
- If the system is short, the SBP will be the Main Price and the SSP will be the Reverse Price.

As a result, the Main Price is applied to any Party whose imbalance contributed to the overall system imbalance. These Parties will therefore face the costs of the balancing actions accepted by the System Operator to resolve energy imbalance on the system. Equally, the Reverse Price is applied to any Party whose imbalance helped to reduce the overall system imbalance. Therefore, these Parties will face the costs it would have incurred had it traded out its imbalance position on the power exchanges near Gate Closure.

Further information on imbalance prices can be found on the [BSC website](#).

What is the Price Average Reference volume?

When a participant is out of balance in the same direction as the overall system (therefore exacerbating the overall imbalance) they face the Main Price.

The Price Average Reference (PAR) volume is used to tag NIV untagged balancing actions, so that the PAR volume (MWh) of most expensive energy balancing actions is volume weighted to set the Main Energy Imbalance Price (or cash-out price).

Originally under the current arrangements, imbalance prices were calculated as an average of all actions taken by the SO to balance the system. This was reduced to the most expensive 100MWh of actions under BSC Modification [P194 'Revised Derivation of the 'Main' Energy Imbalance Price'](#) and subsequently changed to 500MWh of actions under [P205 'Increase in PAR level from 100MWh to 500MWh'](#). This level of 500MWh has since been maintained.

What is the Electricity Balancing Significant Code Review?

In August 2012, Ofgem launched the [Electricity Balancing Significant Code Review](#) (EBSCR) to address long-standing concerns on electricity balancing arrangements raised in its 2010 [Project Discovery Report](#). In particular, Ofgem expressed concerns that imbalance prices are not creating the correct signals to allow the market to balance, leading to increased risks to future security of supply.

Ofgem completed its review of the electricity balancing arrangements and published its [Final Policy Decision](#) on 15 May 2014. The final decision document lays out Ofgem's

conclusions and builds on the extensive analysis and stakeholder engagement conducted during the EBSCR.

What is Ofgem's rationale for reform?

In its Final Policy Decision, Ofgem lays out its rationale for why reform of imbalance prices is needed. In it, it notes that the actions of the Transmission Company in balancing the system in real time is the basis for the calculation of imbalance prices, and considers that a number of factors currently dampen these prices:

- Prices are calculated using an average of the most expensive (to the Transmission Company) 500MWh of Bids or Offers taken to balance the system, rather than the most marginal action;
- Prices do not include the costs to consumers of involuntary demand disconnections (blackouts) and voltage reductions (brownouts); and
- The way reserve capacity is currently priced does not allow imbalance prices to rise to reflect tight margins.

Additionally, the current dual imbalance price system creates unnecessary balancing costs, disadvantaging in particular smaller Parties.

Ofgem considers that the shortcomings with the current arrangements mean that the market does not sufficiently value flexibility (the ability to ramp generation or demand up or down quickly in response to changing market conditions). As a consequence, market participants have insufficient incentives to provide flexible capacity (such as flexible generation, demand response services and storage) to meet demand. Shortcomings may also make it more likely that Interconnectors export at times of system stress or import less than under more efficient arrangements. As the share of intermittent generation grows, flexibility will only become more important for security supply.

Ofgem believes that imbalance price arrangements and the government's planned Capacity Market (CM) have distinct but complementary roles in seeking to ensure electricity security of supply. The CM is intended to address longer term capacity adequacy by providing capacity providers with a secure revenue stream for their investment. Reform of imbalance prices complements this by providing efficient signals of the value of flexibility, influencing the type of capacity coming forward. In addition, imbalance prices have the potential to reduce the cost of procuring capacity in the CM auction.

What is the issue?

Ofgem considers that the existing imbalance arrangements have the effect of dampening imbalance price signals, meaning that they do not provide sufficient indication to the market of the value of flexible capacity when margins are tight. As a result, imbalance price signals have failed to create appropriate incentives for investment in flexible capacity (such as flexible generation, Demand Side Response (DSR) services and storage).

A leading cause of this price dampening is the level of PAR, which is currently set at 500MWh. Deriving a weighted average from a volume of 500MWh creates an imbalance price which does not reflect the marginal cost of balancing energy for a given Settlement Period. This is especially true at times of system stress when differences between the costs of accepted balancing actions are greatest.

Ofgem's EBSCR Final Policy Decision sets out a package of reforms to the existing imbalance arrangements designed to improve the efficiency of imbalance price signals to the market. These reforms have been targeted for implementation by winter 2015/16 and are captured in BSC Modification [P305 'Electricity Balancing Significant Code Review Developments'](#).

In order to improve the strength of the imbalance price signals for the intervening period, in particular winter 2014/15, and to help Parties to transition to more marginal pricing, P304 proposes to reduce the PAR volume to 250MWh by November 2014. A PAR volume of 250MWh will reduce the extent to which the cost of the marginal action is diluted by averaging and will provide a relatively stronger price signal ahead of the package of EBSCR reforms anticipated for winter 2015/16.

Proposed solution

National Grid raised [P304 'Reduction in PAR from 500MWh to 250MWh'](#) on 30 May 2014. This Modification proposes to introduce a reduction in the PAR volume.

Reducing the PAR volume will improve the strength of imbalance price signals during 2014/15. This will in turn help industry participants' transition to a more marginal pricing and will reduce the extent to which the cost of the marginal action is diluted.

Under the P304 proposed solution, a central system parameter change will be made as part of business-as-usual operations to reduce the PAR volume from 500MWh to 250MWh. Therefore, central costs and effort would relate only to the necessary code changes required to implement this solution, requiring minimal costs and lead time to implement.

We do not anticipate mandatory system impacts on participants to implement this Modification as the imbalance process, in which PAR is used, are calculated centrally. Participants systems will only be impacted if they have elected to store or use the value of PAR within their systems (e.g. to calculate the system prices themselves) which they would do voluntarily.

Assessment Consultation Question

Do you agree with the Proposer's view that PAR should be reduced to a volume of 250MWh?

If not, please provide rational and details of any alternative volume you believe is more appropriate.

The Workgroup invites you to give your views using the response form in Attachment D.

Proposed draft legal text changes

This Modification proposes changes to BSC [Section T 'Settlement and Trading Charges'](#) to introduce a reduction in the PAR volume from 500MWh to 250MWh, as shown below:

1.10 Price Average Reference Volume

- 1.10.1 For the purposes of the Code the "**Price Average Reference Volume**" (PAR) shall be ~~500~~ 250 MWh.

1.11 Replacement Price Average Reference Volume

- 1.11.1 For the purposes of the Code the "**Replacement Price Average Reference Volume**" (RPAR) shall be 100 MWh.

Assessment Consultation Question

Do you agree with the Workgroup that the draft legal text delivers the intention of the P304 proposed solution?

The Workgroup invites you to give your views using the response form in Attachment D.

Potential alternative PAR values being considered by the Workgroup

The Workgroup has considered whether a PAR value of 250MWh is the most appropriate value under P304. In order to make a fully informed decision on this Modification, the Workgroup has requested extensive analysis on the following PAR values:

- 100MWh
- 250MWh
- 350MWh

ELEXON is currently completing a portion of this analysis in parallel with the Assessment Consultation. As the Workgroup has not been able to assess the results of this portion of the analysis, it is not able to make an initial recommendation to the industry on whether or not it will put forward an alternative solution containing a PAR value different to that of the proposed.

Full details of the analysis already conducted by ELEXON can be found in Attachment A (PAR100), Attachment B (PAR250) and Attachment C (PAR350).

Other related changes

Ofgem published its [Final Policy Decision](#) on the EBSCR on 15 May 2014 and directed National Grid (as the Transmission Company) to raise the relevant Modifications to put a package of reforms in place.

Alongside P304, National Grid raised [P305 'Electricity Balancing Significant Code Review Developments'](#) on 30 May 2014. This Modification has been raised to progress a package of changes that have come out of the EBSCR, as follows:

- Further reduction in the PAR value following P304 (50MWh from Winter 2015/16, then 1MWh from Winter 2018/19) and changes to the Replacement PAR (RPAR) volume which is currently set at 100MWh;
- A single imbalance price, calculated using the main price calculation;
- The introduction of Reserve Scarcity Pricing (RSP); and
- The introduction of Value of Lost Load (VoLL) pricing for Demand Control actions.

4 Impacts & Costs

Estimated central implementation costs of P304

The estimated central implementation costs associated with P304 are minimal. It will take approximately one ELEXON man day (equating to £240) to implement changes to the BSC and to change a central system parameter as part of business-as-usual operations to reduce the PAR value.

Indicative industry costs of P304

We do not anticipate any direct impacts on BSC Parties or Party Agents. However, if industry participants have elected to store or use the value of PAR in their systems there may be a cost associated with changing the value.

Assessment Consultation Question

Will P304 impact your organisation?

Will your organisation incur any costs in implementing P304?

The Workgroup invites you to give your views using the response form in Attachment D.

P304 impacts

Impact on BSC Parties and Party Agents

We do not anticipate direct impacts on participants as the imbalance prices, in which PAR is used, are calculated centrally. Participants systems will only be impacted if they have elected to store or use the value of PAR within their systems (e.g. to calculate the system prices themselves) which they would do voluntarily. Participants may also be indirectly impacted by the effects of the reduced PAR value on imbalance prices.

Impact on Transmission Company

We do not anticipate there to be an impact on the Transmission Company.

Impact on BSC Agent/service provider contractual arrangements

BSC Agent/service provider contract	Potential Impact
SAA	The SAA will set the value of PAR within central systems to 250MWh effective from the P304 Implementation Date. This value will apply to all Settlement Days from this date onwards.

Impact on Code

Code Section	Potential Impact
Section T	Changes will be required to implement this Modification, as detailed in Section 3.

5 Implementation

Recommended Implementation Date

The Workgroup recommends an Implementation Date for P304 of:

- **31 October 2014**, if the Authority's decision is received on or before 24 October 2014; or
- **5 Working Days** following an Authority decision if the decision is received after 24 October 2014.

The Workgroup has considered that the ELEXON effort to implement P304 will be minimal and that there are no direct impacts anticipated on BSC Parties or Party Agents. The Workgroup has also noted Ofgem's recommended implementation approach in its Final EBSCR Policy Decision.

Taking the above into account, the Proposer and the Workgroup are recommending that P304 be implemented no earlier than 31 October 2014 with a minimum of 5 Working Days lead time.

Assessment Consultation Question

Do you agree with the Workgroup's recommended Implementation Date?

The Workgroup invites you to give your views using the response form in Attachment D.

What analysis is required?

Analysis agreed by the Workgroup

As part of its assessment of P304, the Workgroup agree the following analysis:

- Expand analysis period back to 2010 (post P217 implementation);
- Run all analysis with PAR values of 100MWh, 250MWh and 350MWh;
- Look at the effects of the above PAR values on different types of users by running analysis on individual Parties and then grouping appropriately;
- Look at scarcity in the market and the effects the above PAR values will have during times of scarcity; and
- Provide a breakdown of different price signal changes over the course of a single day, this will help the Workgroup understand the effects of different PAR values at times of peak demand

ELEXON is in the process of completing some of its analysis, which looks at the effects of PAR100, PAR250 and PAR350 at time of scarcity in the electricity market.

The analysis that ELEXON has completed, and that the Workgroup will consider along with Assessment Consultation responses, can be found in Attachment A (PAR100), Attachment B (PAR250) and Attachment C (PAR350).

What is the most appropriate period of analysis?

The Workgroup considered ELEXON's initial analysis on PAR250, using data going back to 2012. A member noted that this period in the market was quite benign and asked whether ELEXON considered running analysis going back to 2005/06. The member believes that any PAR analysis conducted should be done using volatile market data where possible.

ELEXON informed the Workgroup that it did not consider running analysis using data going back to 2005/06 as the market looked very different before [P217 'Revised Tagging Process and Calculation of Cash Out Prices'](#) was implemented in November 2009. ELEXON confirmed that it would run further analysis going back to 2010. A Workgroup member responded that expanding the period back to 2010 may not be enough to show volatile market conditions.

An Ofgem representative on the P304 Workgroup noted that, in their experience, it is quite difficult to conduct analysis using data from before P217 was implemented. This is because it is difficult to assume what tagging would have been used at the time. Ofgem also noted that using post-P217 data would provide more transparent analysis results as would limit the risk of large numbers of assumptions being made.

The Workgroup agreed that ELEXON should run additional analysis on the reduction of PAR using data going back to 2009/10. This will limit the risk of additional assumptions having to be made and will allow for more transparent results. However, the Workgroup also urged ELEXON to draw out any analysis results at known times of system stress over this period.

What analysis is required to show the impacts of reducing the PAR value across different types of user?

A Workgroup member noted that the impact of reducing the PAR value needs to be assessed across different types of user. The member believes it is important to identify different impacts across different users in the market.

Another member noted that participants are doing everything they can to ensure they are as balanced as possible. Therefore, they do not see a large impact on Suppliers due to the implementation of P304. This is because Suppliers will want to hedge based on their forecast data.

A Workgroup member noted that this may mean making assumptions on market participants' behaviour and ELEXON needs to be careful not to overestimate the scope of behavioural changes.

A Workgroup member asked whether Ofgem's analysis looked at differential impacts on different types of users. Ofgem responded that its historic analysis did not take into account behavioural changes but did look at the type of player based on their imbalance and portfolio size. Another member noted that the Workgroup needs to do a more detailed impact assessment and make sure that there are no gaps in the analysis already done on the reduction of PAR. They noted that a lot of ground work has been done but the Workgroup need to review this work and make sure that everything is covered.

A member noted that there may be a way to work out the £/MWh cost to participants by comparing the difference in energy imbalance charges (i.e. difference in the charges at PAR500 and PAR250) assuming the Market Index Price does not change. Another member added that it would be worth considering changes in the size of the Residual Cashflow Reallocation Cashflow (RCRC) pot. However, the distributional effect on individual participants is a key aspect as the overall industry costs will ultimately zero out in the end.

ELEXON confirmed that it would do further analysis on an individual participant level. ELEXON will then group the participants appropriately to look at the impacts across different types of users. However, all analysis will be caveated as no behavioural changes will be taken into account.

What analysis is required to show the difference in price signals during times of peak demand?

A Workgroup member noted that there needs to be analysis to show the effects of a lower PAR value at different times of day. This will enable the industry to see the level of change during peak demand for a given day. The member asked that ELEXON break down its analysis for each Settlement Period over the course of a day where the system was tight.

Another member agreed with this view and requested that ELEXON provide its raw data to the industry so that further analysis can be run by individual Parties so they can understand the effects of a lower PAR value individually. ELEXON has since published the raw data used for its analysis on the [P304 page](#) of the ELEXON website. To ensure confidentiality of the data, ELEXON has given each Party its own four digit identification number. Parties can contact ELEXON (elxon.change@elxon.co.uk) and request their own identification number.

What analysis has been done by Ofgem as part of its EBSCR?

A Workgroup member noted that Ofgem had only assessed the effects of PAR values of 500MWh and 50MWh. The member added that this analysis was also based on all the EBSCR changes proposed in Ofgem's final policy decision being implemented. Therefore there was never any analysis on PAR250 under the current arrangements.

The Ofgem representative confirmed that its updated modelling for the EBSCR Final Decision Impact Assessment included all aspects of the SCR final policy decision. They noted that this did not include analysis on PAR250 or any reduced PAR values in a dual prices market.

A Workgroup member asked whether Ofgem would, at any point, need to issue a regulatory impact assessment. Ofgem replied that it is required to conduct an impact assessment when there is a significant impact on consumers. At this point Ofgem do not see this impact being sufficient enough to encourage an Ofgem impact assessment.

A Workgroup member asked why Ofgem chose a value of 250MWh as proposed under P304. Ofgem responded that the industry requested a phased approach to the reduction of PAR to 1MWh. Therefore, Ofgem saw PAR250 as a step change to help the industry get used to a more marginal price. The majority of the updated analysis looked at receded values of PAR as if P305 was already implemented.

Should any additional analysis take into account P305 and EMR?

A Workgroup member noted that if the market moves to a more marginal price you have to look at a single price at the same time. There may be a number of issues with using a marginal price under a dual pricing system. The member believes that the Workgroup should consider lowering the PAR value and moving the market to a single price. Another member agreed with this view noting that a lower PAR value will have a greater adverse impact on a dual priced market rather than a single priced market.

ELEXON advised the Workgroup that such a change would be out of scope for P304 as the defect identified is that the value of PAR needs to be reduced. Therefore, moving the market to a single price would be something covered under P305.

A Workgroup member noted a number of changes going on in the market, including EMR. The member believes that it would be worth assessing a reduction in PAR under current and future market arrangements.

Another member added that the Workgroup cannot assume that P305 or Electricity Market Reform (EMR) will be implemented and that P304 needs to be assessed against the current baseline. The member believes there is a risk in assuming what could happen in 2-3 years' time. Other members of the Workgroup agreed with this view.

Are there potential impacts on the current credit arrangements under the BSC?

The Workgroup considered the potential impacts on BSC Parties if the PAR value was reduced. They considered what would happen if price signals get sharper and whether this would have a knock on impact on the amount of Credit Cover a Party may need.

A member noted that the larger the imbalance price is the more Credit Cover a Party may need. If price signals in the market end up being very spiky there may need to be disproportionately large amount of Credit Cover lodged.

The Workgroup agreed that there may be unintended consequences on the credit arrangements under the BSC. Therefore, the Workgroup seeks the industry's view on this.

Assessment Consultation Question

Will the current Credit arrangements be impacted if there is a reduction in the PAR value?

The Workgroup invites you to give your views using the response form in Attachment D.



Applicable BSC Objectives

The **Proposer** believes that P304 will better facilitate:

- **Applicable BSC Objective (b)** by making the main imbalance price signal more cost reflective, strengthening the incentive on market participants to balance their positions ahead of Gate Closure. This should reduce the balancing actions required to be taken by the System Operator.
- **Applicable BSC Objective (c)** as strengthening the energy imbalance price signal should incentivise market participants to trade in order to balance their positions ahead of Gate Closure. This will increase liquidity in the forward market and benefit competition by encouraging investment in flexible capacity (flexible generation, demand participation and other technologies).

Assessment Consultation Question

Do you agree with the Proposer's view that P304 does better facilitate the Applicable BSC Objectives than the current baseline?

The Workgroup invites you to give your views using the response form in Attachment D.

Workgroups initial conclusions on P304

As part of its assessment of P304, the Workgroup has requested that ELEXON conduct extensive analysis using PAR values of 100MWh, 250MWh and 350MWh. ELEXON have completed the majority of this work but still need to complete our assessment of these PAR values using system margin data rather than NIV. The Workgroup is unable to give its view on P304 against the Applicable BSC Objectives until this analysis has been completed.

The Workgroup will consider all analysis results in line with its consideration of the Assessment Consultation responses. Workgroup members will then give their views on P304 against the Applicable BSC Objectives. The industry will have the opportunity to comment on these views and the full requested analysis when P304 has been issued for its Report Phase Consultation.

What are the Applicable BSC Objectives?

(a) The efficient discharge by the Transmission Company of the obligations imposed upon it by the Transmission Licence

(b) The efficient, economic and co-ordinated operation of the National Electricity Transmission System

(c) Promoting effective competition in the generation and supply of electricity and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity

(d) Promoting efficiency in the implementation of the balancing and settlement arrangements

(e) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency [for the Co-operation of Energy Regulators]

Appendix 1: Workgroup Details

Workgroup's Terms of Reference

Specific areas set by the BSC Panel in the P304 Terms of Reference

Is the proposed solution the most appropriate way to implement the EBSCR conclusions in relation to the PAR value?

Will a PAR value of 250MWh improve the strength of imbalance price signals during winter 2014/15, as outlined in Ofgem's EBSCR Final Policy Decision?

What impact will a PAR value of 250MWh have on imbalance prices in practice?

Will a move towards a more marginal price reflect a more marginal cost?

What impact will P304 have across different types of user, for example small Suppliers, intermittent generators and non-portfolio generators.

What views and arguments have been expressed under previous Modifications relating to the imbalance prices and do they apply to P304?

What impact may P304 have on Parties' behaviour and their likely positions following implementation of the changes, and what issues may this cause?

What is the most appropriate Implementation Date for P304?

What changes are needed to BSC documents, systems and processes to support P304 and what are the related costs and lead times?

Are there any Alternative Modifications?

Does P304 better facilitate the Applicable BSC Objectives than the current baseline?

Assessment Procedure timetable

P304 Assessment Timetable

Event	Date
Initial Written Assessment presented to Panel	12 Jun 14
Workgroup Meeting	W/B 16 Jun 14
Assessment Consultation	30 Jun 14 – 18 Jul 14
Workgroup Meeting	W/B 21 Jul 14
Present Assessment Report to Panel	11 Sep 14
Report Phase Consultation (<i>10 Working Days</i>)	15 – 26 Sept 14
Present Draft Modification Report to Panel	9 Oct 14
Issue Final Modification Report to Authority	10 Oct 14

Workgroup membership and attendance

P304 Workgroup Attendance			
Name	Organisation	20 Jun 14	17 Jul 14
Members			
David Kemp	ELEXON (<i>Chair</i>)	✓	✓
Talia Addy	ELEXON (<i>Lead Analyst</i>)	✓	✓
Sally Lewis	National Grid (<i>Proposer</i>)	✓	✓
Bill Reed	RWE	✓	✗
Esther Sutton	E.ON	✓	✓
Lisa Waters	Waters Wye Associates	✓	✗
Olaf Islei	APX Commodities	☎	✓
Sarah Owen	British Gas	☎	✓
Tom Edwards	Cornwall Energy	✓	✓
Andrew Colley	SSE	✓	✓
Libby Glazebrook	GDF SUEZ	✓	✗
Alex Bastable	Smartest Energy	✓	✓
Martin Mate	EDF Energy	✓	✓
Keith Munday	First Utility	✓	✓
Christine Hough	Haven Power	✓	✗
Attendees			
Oliver Xing	ELEXON (<i>Design Authority</i>)	✓	✓
Nick Brown	ELEXON (<i>Lead Lawyer</i>)	✗	✗
Peter Bolitho	Waters Wye Associates	✗	✓
Christopher Steele	Energy UK	✓	✗
Dominic Scott	Ofgem	✓	✗
Dipali Raniga	Ofgem	✓	✓
David Beaumont	Ofgem	✗	✓
Mari Toda	EDF Energy	✓	✗
Jeremy Guard	First Utility	✓	✓

Appendix 2: Glossary & References

Glossary of defined terms

Acronyms and other defined terms used in this document are listed in the table below.

Glossary of Defined Terms	
Acronym	Definition
BSAA	Balancing Services Adjustment Actions
CM	Capacity Market
DSR	Demand Side Response
EBSCR	Electricity Balancing Signification Code Review
EMR	Electricity Market Reform
NIV	Net Imbalance Volume
PAR	Price Average Reference
RCRC	Residual Cashflow Reallocation Cashflow
RPAR	Replacement Price Average Reference
RSP	Reverse Scarcity Price
SAA	Settlement Administration Agent
SBP	System Buy Price
SO	System Operator
SSP	System Sell Price
VoLL	Value of Lost Load

External links

A summary of all hyperlinks used in this document are listed in the table below.

All external documents and URL links listed are correct as of the date of this document.

External Links		
Page(s)	Description	URL
5	Imbalance Pricing information website	http://www.elexon.co.uk/reference/credit-pricing/imbalance-pricing/
5	P194 webpage	http://www.elexon.co.uk/mod-proposal/p194-revised-derivation-of-the-main-energy-imbalance-price/
5	P205 webpage	http://www.elexon.co.uk/mod-proposal/p205-increase-in-par-level-from-100mwh-to-500mwh/

External Links		
Page(s)	Description	URL
5	EBSCR webpage	https://www.ofgem.gov.uk/electricity/wholesale-market/market-efficiency-review-and-reform/electricity-balancing-significant-code-review
5	Ofgem's Final EBSCR Policy Decision	https://www.ofgem.gov.uk/publications-and-updates/electricity-balancing-significant-code-review-final-policy-decision
7	P305 webpage	http://www.elexon.co.uk/mod-proposal/p305/
8	P304 webpage	http://www.elexon.co.uk/mod-proposal/p304/
8	BSC Section T	http://www.elexon.co.uk/wp-content/uploads/2014/03/Section_T_v23.0.pdf
13	P217 webpage	http://www.elexon.co.uk/mod-proposal/p217-revised-tagging-process-and-calculation-of-cash-out-prices/