

# Assessment Procedure Consultation Responses

## P316 'Introduction of a single marginal cash-out price'

This Assessment Procedure Consultation was issued on 15 December 2014, with responses invited by 14 January 2015.



### Phase

Initial Written Assessment

Definition Procedure

Assessment Procedure

Report Phase

Implementation

### Consultation Respondents

Respondent	No. of Parties/Non-Parties Represented	Role(s) Represented
ScottishPower	5/0	Generator, Supplier, Non Physical Trader, ECVNA, Supplier Agent, MVRNA
TMA Data Management Ltd	0/1	Supplier Agent (NHHDA, NHHDA, HHDC and HHDA)
GDF SUEZ UK-Turkey	14/0	Not stated
Drax Power Limited	1/0	Generator
RWE Supply and Trading GmbH	10/0	Generator, Supplier, Interconnector User, ECVNA, MVRNA
SmartestEnergy	1/0	Supplier
Flow Energy Ltd	1/0	Supplier
InterGen UK Ltd.	3/0	Generator, ECVNA
DONG Energy	1/0	Generator, Supplier
Good Energy	1/0	Supplier, ECVNA, MVRNA
VPI Immingham	1/0	Generator
Centrica	15/0	Generator, Supplier, Interconnector User, Non Physical Trader
RenewableUK	0/0	Trade Association
Energy24 Limited	1/0	Non Physical Trader, ECVNA, MVRNA
National Grid	1/0	Transmission Company
Vattenfall	1/0	Generator, Supplier, Interconnector User, Non Physical Trader, ECVNA, MVRNA
Eggborough Power	1/0	Generator
Haven Power Limited	1/0	Supplier

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Respondent	No. of Parties/Non-Parties Represented	Role(s) Represented
SSE plc	6/0	Generator, Supplier, Interconnector user
First Utility Limited	1/0	Supplier
E.ON	7/0	Generator, Supplier, Interconnector User, Non Physical Trader,
Utilita	1/0	Supplier
EDF Energy	9/0	Generator, Supplier, Non Physical Trader
Green Frog Power	0/1	Generator
Co-Operative Energy	1/0	Supplier

Appendix 1: Energy UK Response

Question 1: Do you believe that P316 does better facilitate the Applicable BSC Objectives than the current baseline?

**Summary**

Yes	No	Neutral/No Comment	Other
9	16	0	0

**Responses**

Respondent	Response	Rationale
ScottishPower	No	The P316 Original Proposal will not better facilitate the Applicable BSC Objectives as it does not provide sufficient notice for Parties to respond to the change to significantly more extreme and volatile imbalance prices as some Parties may already have traded a significant proportion of their generation output or demand requirements for Winter 2016 by the time an Authority decision on P316 is received. An Alternative that takes a more measured step towards more marginal prices e.g. PAR=50MWh in November 2015 would better meet Applicable Objective (b) by reflecting to generators and demand side response providers through cash-out prices the value attached to security of supply by consumers and hence the value of providing flexible and reliable response. By providing some of the "missing money" more marginal cash-out prices may incentivise investment in new generation capacity thus better facilitating the operation of the National Electricity System. Such an Alternative would also better facilitate Applicable Objective (c) through enabling those Parties able to provide flexibility and balancing services to earn a reward which better reflects the value of those services thus better facilitating competition for provision of those services and encouraging entry into this market. Removal of dual imbalance prices under either the Original or an Alternative proposal would remove the existing imbalance price spread and encourage Parties to balance their positions more efficiently. It should reduce net imbalance costs for many Parties, particularly smaller ones and would better facilitate objectives (b) and (c).
TMA Data Management Ltd	Yes	We believe that P316 would better deliver BSC Objectives b and c by making imbalance prices more reflective of the actual cost to the System Operator, creating incentives for Parties to be more efficient.

Respondent	Response	Rationale
GDF SUEZ UK-Turkey	No	<p>GDF SUEZ supports a single and more marginal cashout price but not an immediate move to a fully marginal (PAR 1MWh) cashout price. The cashout calculation is at the very core of the trading arrangements and such a large step change in how cashout prices are determined should be avoided: P304 was supposed to provide this 'glidepath' to more marginal cashout prices) but it has been rejected.</p> <p>It is simply inefficient to make such a big change without first establishing how balancing behaviour might alter and therefore what the impact might be. The analysis that has been provided by ELEXON does not take account of behavioural changes so P316 cannot at this stage be considered to be more economic, efficient or better facilitate competition compared to the current baseline- objectives (b) (c) and (d).</p> <p>It would be better to allow Parties to get used to a single and more marginal cashout price before reducing it further. A reduction in the value of PAR could then be made through a subsequent BSC modification.</p>
Drax Power Limited	No	<p>The relevant applicable objectives are (b), (c) and (d) in our opinion. Our view is that the current imbalance arrangements perform well when measured against the applicable BSC objectives. Therefore, a significant improvement to the Baseline arrangements is required to better facilitate the applicable objectives. While P316 represents a significant change to the existing arrangements, we do not, at this time, consider that it has been demonstrated that P316 represents an improvement against the Baseline arrangements.</p> <p>Specifically, a change to PAR1MWh carries significant risk of system pollution of cash-out prices. We believe a more cautious approach (as outlined in answer to question 6) will represent an improvement on the Baseline.</p> <p>We also have concerns that a single cash-out price may be detrimental to wholesale market liquidity, particularly in extreme tight periods. Further evaluation of the impact of a single price is required to confirm whether a move to a single price better facilitates the applicable BSC Objectives.</p> <p>Overall, without further evaluation of the impacts of P316, we cannot conclude that this proposal as</p>

Respondent	Response	Rationale
		packaged better facilitates the relevant BSC Objectives.
RWE Supply and Trading GmbH	Yes	<p>As stated in our proposal the modification would better facilitate Applicable BSC Objectives (b) and (c) (based on P305 justification):</p> <p><i>(b) The efficient, economic and co-ordinated operation of the National Electricity Transmission System</i></p> <p>The proposed changes to the cash-out price calculation make prices more reflective of the value to consumers of balancing, particularly during times of very tight margins. In doing so, market participants will be incentivised to make more efficient balancing and investment decisions. This should result in reductions in the total costs (to the SO and market) of maintaining a balanced system, whilst presenting savings on the costs of delivering secure electricity supplies in the future.</p> <p>Making cash-out prices sharper may contribute to deferring the mothballing of flexible plant and help counteract potential tightening of margins.</p> <p><i>(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</i></p> <p>Reflecting the value that actions deliver supports effective competition by aligning competitive incentives of market participants with the interests of the consumer. A single marginal cash out price eliminates distortions in the arrangements that currently impede value reflectivity, thereby supporting effective competition that drives value for the consumer.</p> <p>Strengthening the energy imbalance price signal, through PAR reform will incentivise market participants to trade to balance their positions ahead of Gate Closure. This will result in increased liquidity in the forward market and benefit competition by encouraging investment in flexible capacity (flexible generation, demand participation and other technologies).</p>

Respondent	Response	Rationale
		<p>The inclusion of a single imbalance price removes the existing inefficient price spread and for many market participants, in particular smaller parties who are less likely to drive the system length. This should reduce net imbalance costs and therefore help to mitigate the potential imbalance risk faced by market participants.</p> <p>The single marginal cash out price may alter the incentives for parties to enter the market. The reforms address existing inefficiencies which limit the potential for some parties, in particular those offering services that facilitate flexibility and balance (such as DSR or storage), to participate in the wholesale electricity market.</p>
SmartestEnergy	No	We believe it is inappropriate to move to PAR 1 without having had time to study the effects of a higher PAR, say 50.
Flow Energy Ltd	Yes	A single cash out price will better facilitate the efficiency of the balancing system, it will also help protect competition in mitigating the risks to the small independent (and especially domestic) suppliers which are introduced by the reduction in PAR volume.
InterGen UK Ltd.	Yes	InterGen was disappointed at the failure to implement either P304 or P314 at the end of 2014. InterGen has been supportive of the EBSCR since its inception in 2012 and welcomes the proposals set out in P316 that, if implemented, would result in changes to PAR being brought in ahead of Winter 2015.
DONG Energy	No	<p>DONG Energy is committed to the development of an overall more efficient design of the electricity market, including the Balancing Mechanism. We therefore welcome the opportunity to comment on the changes to the BSC proposed in P316. However, DONG Energy does not believe that P316 in its current form will better facilitate the applicable BSC Objectives for the reasons outlined below and in our response to consultation P305.</p> <p>Overall, we are not convinced that higher cash-out prices and necessarily drive efficiency in the BM mechanism and system and that, as a consequence, there will be subsequent material change towards investment in more flexible and fast response plant. We believe that other regulatory reforms such as</p>

Respondent	Response	Rationale
		<p>the Capacity Market may similarly, or better, support the provision of necessary reserve requirements in the short term market and/ or periods of system stress.</p> <p>Furthermore, DONG Energy suggests that there are other potential solutions and areas which justify further investigation. For example, the development of a deeper and more liquid intraday market could help better accommodate and integrate variable generation and smaller market participants.</p> <p>In particular the reduction of PAR to PAR1 ahead of Winter 2015 is from our point of view a too radical reduction and does not leave market participants with enough lead time to adapt to a changed market environment. DONG Energy believes that such a change would disproportionately burden especially smaller market participants and lead to overall market inefficiencies that would have a negative impact on the applicable BSC objectives.</p> <p>For a more detailed answer, please see the DONG Energy response to P305. We strongly believe that the proposals set out in response to P305 should be taken forward.</p>
Good Energy	No	<p>The historic analysis undertaken by Elexon shows that the introduction of single cash out prices reduces imbalance cash flows for all party types, and the smaller parties in particular, thereby better facilitating Objective (c), but that this benefit is consistently eroded as PAR is reduced. However, the historic analysis has been undertaken during a period of relatively benign market conditions and P316 will doubtless lead to behavioural change. We would expect larger trading parties who are better able to afford sophisticated forecasting systems and other associated resource &amp; experience to be better able to adjust to a market with sharper cash out prices from lower PAR. We are particularly concerned by the potential impact of extreme events on smaller parties: particularly renewable suppliers and independent (non-portfolio) generators where, if the wind does not blow or a generator trips at times of system stress, their imbalance is penalised by very severe cash out prices due to the effect of a low PAR value. This is essentially an unmanageable risk which will add to their overall costs and could potentially put them out of business. In view of the above we consider that, taken overall, P316 does not better facilitate</p>

Respondent	Response	Rationale
		<p>Objective (c).</p> <p>Whilst single cash out prices promote more efficient balancing by parties by reducing the incentive for positions to be long, and a lower PAR value will better reward flexibility, we have concerns at possible distortions to cash out prices due to erroneous flagging and tagging of balancing actions. We note that although the Transmission Company retrospectively checks all tagged actions to ensure that they were correctly tagged, it doesn't check the actions it did not tag to see whether they should in fact have been tagged. This creates the potential for an action that should have been tagged out to go on to set the imbalance price. We are concerned that the use of marginal values could amplify existing inefficiencies in the current calculation. We note that the Transmission Company can sometimes accept a high-priced offer in one settlement period to resolve an issue at that time, but because of the dynamics of the BM Unit called upon, that offer may have to persist for several hours, impacting future settlement periods where a lower-priced offer would otherwise have been accepted.</p> <p>Our concerns are exemplified in the Elexon Historic Analysis by the lowest price calculated over the period of the analysis of -£250/MWh, assuming PAR 1, Single Price but excluding RS requirements. On querying this recently we learnt it was the result of a bid that should have been flagged and tagged out but wasn't.</p> <p>In view of these concerns we consider that, taken overall, P316 does not better facilitate Objectives (b), (c) or (d) and is neutral to the other BSC Objectives.</p>
VPI Immingham	Yes	<p>Yes, P316 would better facilitate the applicable BSC objectives compared to the current arrangements. The proposed changes would be more cost reflective as it would sharpen the price signals associated with balancing the system and hence incentivise participants to balance their position ahead of gate closure. This would incentivise market participants to trade, improving liquidity and hence improving competition. It would also better reflect the value of flexible plant, particularly in times of system scarcity hence enhancing competition. All of these combined factors better deliver objectives (b) and (c) of the BSC objectives and therefore we think the modification should be</p>



Respondent	Response	Rationale
		implemented.
Centrica	No	<p>We believe that the implementation of PAR1 from November 2015 will result in highly unpredictable cash-out prices that parties may be unable to react to. Experience from other countries indicates that this could result in parties not being incentivised to balance and leaving an open position at gate closure – contradicting applicable objective b, the efficient, economic and co-ordinated operation of the National Electricity Transmission System.</p> <p>Furthermore, some players, who are inherently more likely to be out of balance may be adversely impacted by such a lower PAR being implemented - contradicting applicable objective c, promoting effective competition.</p>
RenewableUK	No	<p>The immediate move to PAR1 would impair competition as smaller, new entrant variable renewable generators would be less able to cope with the much higher imbalance charges that would result, brought in at relatively short notice.</p>
Energy24 Limited	No	<p>Energy24 believes that the case for P316 has not yet been made and thus should be rejected.</p> <p>With regard to BSC Objective (b) of "The efficient, economic and coordinated operation of the National Electricity Transmission System", the proposed move to a single imbalance price will radically weaken the incentive to participants to balance their own position. As it stands, accepting an imbalance price can never generate a return more favourable than that of RPD (APX Endex spot market average) for the settlement period in question, with that only attainable from the Reverse Price when a party's imbalance is in the opposite direction to that of the system. If a party has a potential to receive a high positive rate - or, alternatively, to pay a very low negative rate - for imbalancing in the opposite direction to that of the system, the party may choose to prefer to imbalance and stand to receive the extreme system price rather than to avoid imbalance as is currently the case. Parties deliberately choosing to imbalance would make the job of the System operator considerably harder.</p> <p>With regard to BSC Objective (c) of "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", the proposed move to a</p>

Respondent	Response	Rationale
		<p>single imbalance price would have a disproportionate effect on smaller market participants. The consideration of average pricing has not been overly useful as it is the extreme prices that drive collateral costs and business impacts, especially for the smaller players. Single extreme events might risk ending, or at least severely damaging, the business of a small market participant through no fault of their own. This would change the risk profile for a business and could lead to a reduced number of market participants and increase the already significant barriers to new entrants. Competition could be potentially reduced and the end user could potentially lose out. The modelling of many significant factual historic events and the changes in prices would be welcome as it allows prices to see the relative extent, under real scenarios, of the potential impact.</p>
National Grid	Yes	<p>We agree with the proposer's rationale for how P316 better facilitates the Applicable Objectives (b) and (c). By changing the price signal to better reflect the value to consumers of balancing, market participants will be incentivised to make more efficient balancing and investment decisions.</p>
Vattenfall	No	<p>Vattenfall welcomes the opportunity to comment on P316. Vattenfall supports a system with</p> <ol style="list-style-type: none"> <li>1) Marginal Pricing</li> <li>2) Single imbalance price/single cash out price</li> </ol> <p>Vattenfall is mindful of the need to implement the conclusions of the Significant Code Review report in a meaningful way. However we don't believe that this mod satisfied the Applicable BSC Objectives better than other proposed mods.</p> <p>Firstly, Vattenfall supports the move to a single imbalance price. It supports Applicable BSC Objectives A and B. Furthermore, Vattenfall believes that it is necessary if moving to marginal balancing pricing.</p> <p>However, on the issue of marginal pricing, although the immediate move to PAR1 could be perceived to</p>

Respondent	Response	Rationale
		<p>support Applicable BSC Objective (D), Vattenfall believes that this consideration should be balanced with the increased impact on intermittent plant, particularly for smaller market players. Moving to the lowest PAR immediately in addition to a single cash out price benefits large scale integrated utilities who are able to balance their own portfolio more readily than other market players. This move is against other action being taken by the regulator/CMA to increase competition in the energy sector. It is against the BSC applicable objective (C).</p> <p>The analysis undertaken by Ofgem has suggested that parties with more accurate forecasting would benefit from these reforms. As a company with intermittent generation only in the UK, the accuracy of the forecasting is obviously limited by the technology available at the time. Waiting to reduce the PAR values further would enable greater forecasting accuracy as new methods are developed which improve the accuracy of weather forecasting. This would make for a more effective transition.</p> <p>In addition, the forward modelling undertaken by Ofgem assumed that all parties would and could change behaviour in a rational way. It is not necessarily the case that all parties have the capability to immediately change behaviour. This supports the argument for a slower transition through the reduction in PAR value to enable adjustments to processes requisite technology to change, to facilitate changes in behaviours in line with market incentives.</p> <p>In conclusion then, P316 would immediately and negatively impact smaller players and intermittent plant. A slower transition to a lower PAR value is needed. Vattenfall also believes that PAR 1 could be too low a PAR to transition to. A higher PAR value might achieve the same ends. As in our consultation response to EBSCR, we would support the insertion of impact assessments before all reductions in PAR, to assess how the market has responded, how groups of players have been impacted and whether further reductions are needed.</p>
Eggborough Power	Yes	<p>Ofgem's SCR conclusions focussed largely on the need for more marginal cash-out prices. The other elements of the conclusions are enhancing more marginal prices, but only at certain times. A move to more marginal pricing under P316 would therefore be a step forward in achieving Ofgem's goals while</p>

Respondent	Response	Rationale
		<p>the other elements of P305 continue to be developed. We therefore believe P316 would better meet the relevant objectives.</p> <p>P305 does not better achieve the relevant objectives as it does not give such clear, efficient pricing signals and seems likely to damage competition between market participants. This is largely because the use of the LOLP function seems to create signals that the market cannot see nor reasonably respond to. We appreciate that Ofgem desires a package of change, but this does not seem like the best modification as it stands and could benefit from further developments.</p> <p>P305 would risk sending suppliers longer as they try to manage the risks associated with an infrequent but significant risk of extreme prices. This may have adverse effects on the level of competition. It would also make the operation of the system less efficient if more balancing is required by NG to counter increasing system length.</p>
Haven Power Limited	No	<p>We believe the relevant applicable objectives are</p> <p>(b) The efficient, economic and co-ordinated operation of the National Electricity Transmission System</p> <p>(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</p> <p>(d) Promoting efficiency in the implementation of the balancing and settlement arrangements</p> <p>To improve objective (b) P316 should increase the incentive on parties to balance their position. Reducing the PAR value increases the incentive for parties to balance as it increases the financial cost of being out of balance. Reducing the PAR value leads to an increase of RCRC payments to parties. Overall parties that are better balanced than average will gain while those who are worse than average will lose out. This should encourage parties to put more resources into balancing their accounts.</p> <p>However, we do not believe that single pricing will improve objective (b). The introduction of single pricing diminishes the incentive for parties to balance their positions. If a party has length in the direction of the system they lose but they will also</p>

Respondent	Response	Rationale
		<p>gain if they are opposite to the system. Under current conditions a single price regime is likely to encourage parties to go long. This volatility could potentially make it much harder for National Grid to balance the system.</p> <p>As an example to illustrate our arguments we consider our own party, Haven Power. We have put considerable effort over the last few years into improving our demand forecasting. We now have one of the lowest imbalance errors in the industry, very similar to that of the 2nd best of the six largest suppliers. Reducing the PAR value would benefit us, as while our imbalance costs would go up we would receive more back through RCRC to compensate for this. However, a move to single cashout would not be in our favour as money that was previously fed back via RCRC will now go to parties that were out of balance, in the opposite direction to the system. To minimise our costs it would be in Haven's interest to take considerable length to gate closure, however, if everyone does this then the advantages of doing this diminish. A move to a fundamentally different imbalance pricing mechanism will undoubtedly result in a period of time of high volatility as all parties are trying to find a new balancing strategy that minimises their losses.</p> <p>We recognise that it is very difficult to change the imbalance pricing mechanism to simultaneously increase the incentive on parties to balance while not putting smaller independent parties at a disadvantage. This is because it is generally the small parties, and particularly newcomers to the industry, that find trading to balance the most difficult. The largest difficulty facing these parties is obtaining sufficient credit to enable them to trade accurately to their forecasted position. We feel that measures need to be put in place to solve this problem before increasing the costs associated with being out of balance. An alternative suggestion is that the majority of parties are subject to dual prices, but very small parties are exposed to a single price.</p> <p>If the decision is made to proceed to single pricing we strongly believe that it should be introduced at a time of year when the system is typically relatively benign. This is because there is likely to be a period of volatility and unpredictability while parties change their strategies in attempt to benefit as</p>

Respondent	Response	Rationale
		<p>much as possible from the new system. We would suggest beginning in April or May 2016. An additional advantage of waiting until then is that PC5-8s will be settled by HH, which should help many parties forecast their demand more accurately.</p> <p>Our view is that the current imbalance arrangements perform well when measured against the applicable BSC objectives. Therefore, significant changes would be required to represent an improvement on the Baseline. P316 represents such a significant change to the existing arrangements. At this time we do not consider that it has been demonstrated that P316 represents an improvement against the Baseline arrangements.</p> <p>Overall, without further development, testing and evaluation of the impacts of P316, we cannot conclude that this, as a package, better facilitates the relevant BSC Objectives.</p>
SSE plc	Yes	<p>On balance SSE believe that the proposed modification better facilitates both objective b) and objective c) for the reasons stated by the proposer. SSE believe that the value of flexibility and risk is not sufficiently priced into the energy market currently, dampening price signals and undermining the credibility of cash-out as an incentive price. Traders are able currently to carry large short positions into the within-day market with no reserve because the threat of cash-out rising to penal levels is not credible. This is increasing the overall cost of balancing. This has resulted in a lack of investment in all generation and particularly flexible capacity as well as the imposition of higher balancing costs on the System Operator, at a time when such capacity is needed to cope with the system management complexities and costs created by reductions in existing flexible capacity due to environmental regulation as well as an increased penetration of intermittent generation. Whilst recognising that short-term impacts may see wholesale prices rise in response to increasing risk, SSE are persuaded by the analysis presented by Ofgem in their EBSCR that the behavioural response likely to be seen as a result of the proposed changes represent a more efficient outcome in the long-term than maintaining the status quo, as variability of generation supplied to the system increases with increasing levels of intermittent generation. Marginal pricing will provide</p>

Respondent	Response	Rationale
		<p>a more efficient balancing and flexibility signal, and strengthen the relationship with forward markets (often disconnected currently). Forward trading behaviours will adapt to mitigate imbalance</p> <p>exposure and encourage innovation and investment in the development of flexible products and technologies, thus promoting competition in the market. Equally the market should be better incentivised to contract forward and leave less residual imbalance for the SO to resolve; thus increasing the overall efficiency of balancing and security of the system. Single pricing will remove the costs of the system price spread that single asset or non-scale players in particular are currently exposed to, to a greater extent than portfolio players; and will therefore offer relief for those players against the potential effects of an increasingly marginal price, better facilitating competition as unnecessary costs are minimised.</p> <p>Whilst SSE would ideally prefer to include a better way of attributing the value of reserve to periods of scarcity when the system most needs it, as proposed in P305, we believe that an agreed method to do this could be developed over a longer-term timescale, in order to ensure that the minimum change required for Winter 2015 (single marginal price) is able to be implemented.</p> <p>As indicated in our response to P305, SSE have some concerns that the artificial volume estimation and imbalance adjustment process described in P305 could unfairly penalise Suppliers that have responded appropriately to all market signals and balanced their forecast position, by leaving them short and exposed to VoLL price as a result of the artificial calculation. So we welcome the P316 solution which removes this element. However, similarly to RSP, it remains necessary to consider the development of an appropriate incentive (perhaps license condition based) at a later stage.</p>
First Utility Limited	No	Please also see our answers to the consultation on P305 which outline these risks and concerns in greater detail.
E.ON	No	Fundamentally while the EBSCR and this related modification proposal had ambitious aims to improve security of supply and balancing efficiency, we do not believe that changes to imbalance pricing will necessarily help to achieve the former or the latter. P316 would however increase costs and risks

Respondent	Response	Rationale
		<p>to parties, detrimental under particularly Objective (c), thus we do not believe this proposal is better than the current baseline.</p> <p>P316 Proposed would potentially be 'less worse' than P305 Proposed in the latter's current form, through not involving RSP/VoLL complications and volatility which require more work to introduce with any confidence either in 2015 or later, and particularly no premature decision on what should happen over three years from now. Consequently, P316 Proposed is 'less worse' than P305 Proposed under Objective (d). However, while in simplicity it could have merit under (d), introducing the extremes and volatility of a fully marginal price which introduces unmanageable risks for parties exposed to such a cost would have negative impacts under Objective (c). Analysis undertaken by Elexon also appears to show high negative impacts through rrcr on well-balanced parties, which is also anti-competitive thus negative under Objective (c).</p> <p>Timing will also cause issues for some parties. A move straight to PAR 1MWh from PAR 500MWh with only six months lead time from a decision for parties to prepare, to what extent they can, is short. Given the protests raised particularly by smaller parties at the prospect of a move to PAR 250MWh or even 350MWh this winter, even with a little more lead time for this proposal than P304 and P314, we believe P316 likely to cause problems for some that a simultaneous move to Single pricing would not remove. Consequently such a swift, large step-change would have negative impacts under Objective (c), owing in part to the varied abilities of parties to adjust their behaviour or positions in a relatively short timeframe.</p> <p>If a marginal price encouraged parties to 'go long', further balancing actions may well also be required by National Grid which would be a negative impact under Objective (b).</p> <p>As with P305, P316 could possibly pre-empt an anticipated EU requirement to move to marginal pricing under the Electricity Balancing Network Code. However, that Code is not finalised; even if/when it is, it is unlikely that changes would have to be made to national arrangements prior to 2018. To introduce a sharp reduction in PAR three years before it might be required is not necessary to support Objective (e) and in this respect, P316 is</p>



Respondent	Response	Rationale
		worse than P305.
Utilita	No	<p>We do not agree that P316 as proposed would better facilitate the BSC applicable objectives compared with the current baseline.</p> <p>P316 has two elements, the introduction of the single imbalance price, which Utilita supports and the reduction of PAR Value to 1MWh which Utilita strongly opposes. We have previously set out our views on the better facilitation of the relevant objectives by introducing a single imbalance price. This response therefore concentrates on the adverse effects of reducing PAR Value to 1MWh.</p> <p>Utilita's views on these aspects of both P316 and P305 are the same, therefore sections of our submission are replicated.</p> <p>In relation to BSC objective B (efficient and economic operation of the transmission system), we believe that implementation of a PAR value of 1MWh will not provide material benefits in respect of BSC Objective B. Implementing marginal pricing can only provide benefits to the economic and efficient operation of the system where participants are able to respond to the price signals given. In the case of the imbalance price, the price signal is not available until after the event. Without sight of the imbalance price and with no ability to alter NHH demand in the short term, the suppliers cannot respond to marginal price signals. Generators will probably already have made their decisions to be available and higher cash-out prices will not induce them to return mothballed stations.</p> <p>Utilita considers that there is a flawed assumption incorporated in several of the recent modifications impacting imbalance prices, including P304, P305, P314 in both formulations, and this proposal, as generation remuneration, which would still be based on pay as bid, would not be affected. A generator who spills when the system is short would still receive the MIDS price, whereas a generator who spills when the system is long would receive a lower price than under the baseline. There would be less incentive to over-generate and no impact on security of supply. Either way, the generator would not be able to predict with any certainty which circumstance would apply in advance.</p> <p>Most suppliers, particularly smaller independent suppliers, will have already hedged their positions,</p>

Respondent	Response	Rationale
		<p>to the extent that they are able to do so, within the market. In addition, at times of system scarcity, liquidity is reduced: this leaves smaller suppliers particularly exposed to higher and more volatile imbalance prices, without the ability to respond effectively to the price signal.</p> <p>Reducing PAR (particularly to 1MWh) is merely exposing them to an ex-post increase in costs which are difficult to forecast and price into contracts. The suppliers are simply not in a position to respond to the prices generated by the changes in PAR. As suppliers cannot respond to the signal, this proposal would not better facilitate objective B.</p> <p>Decreasing PAR should have the effect of incentivising market participants to go longer than they otherwise would have. While we note that the single imbalance price included in this proposal would reduce the level of risk significantly from that suppliers would face under dual imbalance pricing, the increase in supplier exposure from a PAR value of 1MWh in terms of balancing and credit cost increases should not be underestimated. To avoid additional and volatile imbalance costs, participants may make less efficient, but more predictable contracting decisions, ultimately increasing the cost to consumers of managing erratic spill volumes by the SO.</p> <p>Overall we believe the impact of P316 on objective B will be detrimental, especially given that commercial decisions by suppliers have already been made based on a different baseline.</p> <p>In relation to BSC objective C (competition in the generation, supply, purchase and sale of electricity), the proposal will expose all parties to less predictable and increased imbalance costs. The analysis previously included in the P314 consultation demonstrated the distributional impact among trading parties of a reduction in PAR to 250MWh. However the directional conclusions from this analysis would be equally valid for a reduction to 1MWh. The analysis showed that the impact would not be expected to be equivalent across trading parties and hence would introduce competitive distortions.</p> <p>Smaller suppliers, especially independent non-domestic suppliers, and renewables generators will be relatively more exposed to imbalance prices than</p>

Respondent	Response	Rationale
		<p>their larger competitors. This is most notable during times of system stress as identified in the analysis of changing PAR values, where on average smaller non domestic suppliers saw some of the greatest impacts during most system stress events which were analysed. As noted under Objective B, in addition at times of stress/scarcity, liquidity would fall unduly impacting non vertically-integrated players. The system may also tighten ahead of the beginning of capacity payments. Taking all these issues together, it is essential to ensure that smaller players who may not be able to access peak products are not competitively disadvantaged.</p> <p>Reducing PAR to 1MWh would be expected to both increase imbalance prices and reduce predictability. It is more difficult for smaller suppliers to forecast imbalance on less diversified portfolios, compounded by lower customer numbers, fewer forecasting resources and less customer data (given most domestics are still using non Smart meters). Thus the net impact of this change would be to impose relatively higher imbalance charges on smaller parties.</p> <p>The increased imbalance prices will result in increases to RCRC. As the RCRC mechanism redistributes imbalance charges to those players in accordance with volumes this increase income for larger players. The redistribution of (relatively) higher costs to smaller players and additional income to larger players through RCRC would create a competitive distortion.</p> <p>Increasing imbalance charges will lead to increased credit requirements which is a direct barrier to new entrants and a significant drain on the capital resources of smaller players.</p> <p>Higher balancing costs will disproportionately impact smaller suppliers who will inevitably have a greater proportion of their demand in balancing. This is not because smaller suppliers increase risk, it simply reflects trade sizes, portfolio stability and practical limitation on demand forecasting accuracy relative to larger players. National Grid as NETSO should balance the national aggregate position, with robust incentives to minimise balancing costs for the benefit of all and transparent reporting. If this is not the case this will lead to inefficient costs and all customers paying more than is necessary. Higher imbalance prices as a result of a reduction in PAR to</p>

Respondent	Response	Rationale
		<p>1MWh would also impact NETSO activity.</p> <p>Utilita therefore considers that reducing PAR value to 1MWh would not better facilitate objective C, even with the mitigating impact of the single imbalance price proposed.</p> <p>In respect of BSC Objective D (promoting efficiency in the implementation and administration of the balancing and settlement arrangements), Utilita considers that P316 will not better facilitate objective D.</p> <p>Credit provision is already a significant cost in the industry, particularly to smaller players. The reduction in PAR to 1MWh would be expected to increase imbalance prices significantly. This in turn will increase credit requirements and costs for all players compared with the existing baseline.</p> <p>The increase in imbalance prices and reduced predictability would also lead to additional administrative and analytical costs, especially on smaller, less diversified portfolios. This increased burden relative to the status quo would not improve efficiency in the implementation and administration of the credit arrangements needed.</p> <p>On this basis Utilita does not consider that P316 implementation would better facilitate objective D.</p>
EDF Energy	No	<p>EDF Energy is supportive of the overall goals of P316. However, we do not believe that the modification, as it currently stands, should be approved.</p> <p>We believe that a move to 1 MWh PAR is not justified, as it would have a negative effect on Objective C. This is discussed in Question 6, below.</p> <p>We are supportive of a move to a single cashout price, believing that it benefits Objectives B and C. We do, however, have concerns that the change may have a negative impact on market liquidity. This is discussed in Question 10, below.</p>
Green Frog Power	Yes	<p>A key element of an efficient competitive market is liquidity and confidence that prices reflect the value. Under current arrangements, peak prices are muddled by the inclusion of non-relevant activities, and the true, marginal cost of meeting peak demand is not realised by generators, suppliers, or final customers. Effectively, the signal of the value of peak power is muted, which in turn means that</p>

Respondent	Response	Rationale
		<p>the penalty for not buying sufficient power to meet that peak demand is insufficient.</p> <p>We believe that P316 contributes to the following BSC objectives:</p> <ul style="list-style-type: none"> <li>• The efficient discharge by the Transmission Company of the obligations imposed upon it by the Transmission Licence</li> </ul> <p>P316 will contribute to the efficient discharge of the Transmission Company's duties whereby it will aid in ensuring that there are sufficient incentives for all market players to ensure they are balanced. This will enable the Transmission Company to focus on balancing the system against only those events that could not have been foreseen in a market with appropriate price signals, rather than having to also correct for imbalances due to and inefficient market design.</p> <ul style="list-style-type: none"> <li>• The efficient, economic and co-ordinated operation of the National Transmission System</li> </ul> <p>Appropriate and accurate price signals are required for the efficient, economic and co-ordinated operation of the system. Ensuring that all market participants are exposed to the applicable price signals will enable the appropriate behaviours from those participants and result in an efficient outcome. A less acute price signal than that proposed by P316 will result in less efficient operation of the system and a less efficient market.</p> <ul style="list-style-type: none"> <li>• 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.</li> </ul> <p>Many generation and supply parties are nearly fully hedged by the time that imbalance costs become an issue. For these parties to be incentivised to deviate from positions that were set weeks or months in advance, the price signal must be sufficient and appropriate to ensure that suppliers and generators are enticed to improve their positions. Muted and/or lopsided price signals do not encourage 'tidying up' of positions nearer to time</p> <p>The key change to cash-out should be the achievement of more marginal prices, combined with a new single price calculation. The thrust of Ofgem's arguments under the SCR was to sharpen signals to build peaking plant, for suppliers to buy</p>

Respondent	Response	Rationale
		peaking power and improve their balancing. A single, marginal price achieves this key aim in a mechanism that is easy to understand and respond to. We feel that P316 meets the relevant objectives.
Co-Operative Energy	No	<p>No, we believe that implementation of P316 would be likely to have a highly negative impact on competition due to the fact that the introduction of such a low PAR level will lead to significantly increased cash-out volatility and create serious issues for nonvertically integrated participants from a risk and hedging point of view. Vertically integrated participants can hedge the resulting significantly increased imbalance risk due to their ownership of generation assets. They can also potentially derive increased revenue from selling generation into the balancing mechanism during periods of network stress and benefit from the potentially much higher prices which will be paid for generation at these times due to the reduced PAR level. Conversely, non-vertically integrated participants are unable to hedge this risk in this manner and have no generation assets to sell into the balancing mechanism in order to derive this revenue stream from this activity.</p> <p>We therefore believe that implementation of P316 would be likely to create a significant barrier to both non-vertically integrated participant growth and, potentially, to new market entry as smaller companies without the funds to purchase existing generation assets may consider the risks created by implementation to be too high to make entry worthwhile.</p>

## Question 2: Do you agree with the Workgroup's recommended Implementation Date?

### Summary

Yes	No	Neutral/No Comment	Other
14	11	0	0

### Responses

Respondent	Response	Rationale
ScottishPower	No	Parties require as much notice as possible that the changes arising from the electricity balancing significant code review will be implemented from a firm date. This will enable Parties to manage their contract positions (generation and supply) in the certain knowledge of which cash-out regime will be in force. Implementation of the P316 Original Proposal in November 2015 would provide insufficient notice for Parties to respond to such a significant change in the cash-out regime and would be detrimental to the operation of the market. Implementation of any change to the cash-out regime should be made in line with a scheduled BSC Systems Release which would allow the changes to be implemented in an efficient manner.
TMA Data Management Ltd	Yes	None provided.
GDF SUEZ UK-Turkey	Yes	P316 is a variant on P305. The implementation date for P305 has been well signalled so BSC Parties have had time to get used to the idea that a single and marginal cashout price might be introduced.  Compared to P305. P316 is easy to implement. The same lead time will still be needed however to allow suppliers the time to reflect the changes in contractual agreements.
Drax Power Limited	Yes	This is in line with Ofgem's recommendation contained within the EBSCR Direction. However notwithstanding this, a longer implementation timescale would provide market participants with more time to prepare for the new imbalance arrangements. Better aligning implementation with typical trading timescales would facilitate more efficient trading behaviour.
RWE Supply and Trading GmbH	Yes	We support early implementation of P316, in time for winter 2015.

Respondent	Response	Rationale
SmartestEnergy	No	It seems rather absurd to us to have an identical implementation date for this as for P305, esp if P305 is achievable within that timescale
Flow Energy Ltd	Yes	None provided.
InterGen UK Ltd.	Yes	A more marginal PAR coupled with a move to a single imbalance price should be implemented ahead of a winter season. This will allow market participants time to prepare for the changes, forecasting and hedging where necessary, as well as adjusting systems where required before the traditionally more spiky winter cashout prices start to feed into the market prices. InterGen would urge that in order for any transitional PAR reductions to be fully effective, the trajectory should be concluded and implemented in as swift a timeframe as possible. InterGen preference therefore would be to implement a PAR reduction at the start of Winter 2015 (1st October) but would still be able to secondarily support a 5th November 2015 implementation date if that was the majority preference and would prevent further delay of the overall EBSCR objectives.
DONG Energy	No	DONG Energy believes that the recommended implementation date 5th of November 2015 would be possible from an operational point of view. However, an implementation date after Winter 2015 would give market participants the opportunity to adapt to the new market environment during the summer before higher stress events occur in Winter 2016.
Good Energy	No	We do not agree with the recommended implementation date unless it is part of a phased approach to change, as set out in response to Question 3, to allow parties time to adjust and gain experience of a market with sharper imbalance prices.
VPI Immingham	Yes	We wish to see the move to a single marginal price and a sharper PAR ahead of next Winter, when capacity margins are expected to be tighter.
Centrica	Yes	But only in relation to a potentially agreeable alternative solution
RenewableUK	No	Any move to PAR1 should be preceded by phased reductions over a period of time, so implementation of P316 should not take place in November 2015.



Respondent	Response	Rationale
Energy24 Limited	No	Energy24 would disagree with the recommended implementation date, as it comes at a time of year when peak prices would be expected to be at their highest and thus the imbalance price calculation mechanism would be at greatest risk of manipulation by players acting in bad faith as well as a new system 'finding its feet'. Additionally, energy24 believes that a more detailed analysis of the impact on individual roles would be welcome. The assumption that market participants would not change their behaviour in response to the new incentives provided would seem to require an assumption of good faith bordering on arguable naivety; if such changes were to be approved, energy24 feels it would be appropriate to assess participants' changed behaviours in practice at a time when the most extreme effects of potential manipulation are not available and suggests waiting until after the winter 2015/16 peak period for implementation.
National Grid	Yes	We agree with the workgroup's rationale that the recommended date (5 November 2015) allows the changes to be implemented in time for winter 2015/16 whilst maintaining alignment to the scheduled BSC Systems Release.
Vattenfall	No	None provided.
Eggborough Power	Yes	P316 will be straight forward to implement and the November date would also allow parties time to prepare for the changes.  The P305 timetable looks too ambitious given the scale of the changes. In particular the elements that may impact parties' positions with their customers may require significant commercial renegotiations.
Haven Power Limited	No	We appreciate that the implementation date is in line with Ofgem's recommendation contained within the EBSCR Direction. However, we feel that this is putting pressure on the need to push the modification though as soon as possible and without giving enough time for adequate consultation. We also do not believe there will be sufficient time between the final decision on the modification and its date of implementation to allow market participants to prepare for a very significant change in imbalance arrangements. Better aligning implementation with typical trading timescales would facilitate more efficient trading behaviour. Furthermore, we think it would be much more

Respondent	Response	Rationale
		preferable to implement the modification at a time when the system is relatively benign. See Q1 for our discussion on this.
SSE plc	Yes	SSE believes that it is important to ensure that a sharpened cash-out regime is in place for Winter 2015/16 to aid continued investment in flexible assets. 5th November is therefore an appropriate target date for implementation.
First Utility Limited	No	Implementing PAR 250 before the winter makes a lot of sense but we do not support further sharpening of PAR without monitoring the impact of the initial changes. Please see our answers to the consultation on P305.
E.ON	No	As stated in answer to question one, we do not believe that there are convincing arguments for reducing from PAR 500MWh and definitely not to do so drastically, straight to 1MWh just six months from a decision date. This is years before any such change might be required by European legislation, if applicable, and gives parties little time to adapt to a new cashout regime. While change(s) to imbalance pricing potentially including a move to a lower PAR volume have been 'signalled' since 2012, parties cannot pre-judge Authority decisions, as emphasized by the rejection of Ofgem's own directed EBSCR modification proposal P304 following the Workgroup and industry consultation.
Utilita	No	As under question 1, Utilita does not support the implementation of P316 due to the inclusion of the proposed reduction of PAR value to 1MWh. On this basis we do not agree with the proposed implementation date.
EDF Energy	Yes	Implementation in a planned BSC release minimises costs, and subject to rapid approval by the Authority, allows us to complete the pre-implementation work and training required.
Green Frog Power	Yes	P316 will be straightforward to implement. The November date will allow parties time to renegotiate/alter any commercial agreements impacted by the changes and will give time strategically to adjust their positions, should they desire.  Proposal P305 does not bring in the reforms quickly enough. The key elements of P305, reduction of PAR volumes and single pricing, as entailed in P316,

Respondent	Response	Rationale
		should be progressed as quickly as possible.
Co-Operative Energy	No	We do not support implementation of P316.

Question 3: Do you believe there are any other potential Alternative Modifications within the scope of P316 which would better facilitate the Applicable BSC Objectives?

### Summary

Yes	No	Neutral/No Comment	Other
17	6	1	1

### Responses

Respondent	Response	Rationale
ScottishPower	Yes	If Parties are unable to respond rationally and reflect changes in cash-out price in their economic decisions then the change will not deliver increased efficiency in the market arrangements. Reducing PAR to 50MWh in November 2015 and holding it at this value would allow Parties to respond to the change by adjusting their contracting and hedging strategies and reflecting the increased value of flexibility in both their balancing services and consumer product costs. Subsequently, a post-change review should be carried out to determine whether the benefits from a move to PAR = 50MWh have been delivered following which any Party would be able to raise a Modification for a further reduction for example to PAR = 1MWh.
TMA Data Management Ltd	No Comment	None provided.
GDF SUEZ UK-Turkey	Yes	As highlighted in Q1, the cashout calculation is at the core of the trading arrangements. Parties need to be allowed time to adjust to a single cashout price. Reducing PAR to no less than 100MWh would seem appropriate in this context – for BSC Parties it would be both efficient (objective b) and better facilitate competition (objective c).  Ofgem should make clear that it will not consider a further modification to reduce PAR until at least 12 months after P316 is implemented. This will allow a full year to assess any behavioural changes. It would then be up to BSC Parties to raise a modification to change the PAR value - again with at least a 6 month lead time.
Drax Power Limited	Yes	As noted in answer to question 6, we consider a PAR value in the range of 50/MWh to 100/MWh to be more appropriate relative to PAR1. Whilst this may be considered to represent an improvement on

Respondent	Response	Rationale
		the Baseline (PAR500/MWh), when applied in conjunction with a single cash-out price, there is some doubt as to whether this will better facilitate the Applicable BSC Objectives. Our concerns with regards to the implementation of a Single Price are detailed in answer to question 10.
RWE Supply and Trading GmbH	Yes	An alternative based on a different PAR value may be appropriate.
SmartestEnergy	Yes	If it is achievable to implement P305 in November 2015 we believe that this modification could be used to reduce PAR from an initial P305 level to something slightly lower at a later date.
Flow Energy Ltd	Yes	A graduated reduction of PAR to 250 MWh and then to 100 MWh after 12 months will help mitigate some of the shocks to the sector from potential higher imbalance charges and greater imbalance risks, this will help better facilitate competition in the sector as per BSC objective C
InterGen UK Ltd.	Yes	<p>InterGen is supportive of a single marginal cashout price with a PAR 1 value, as proposed in P316. We do, however, support the phased introduction of PAR 1, and suggest that PAR 50 be implemented ahead of Winter 2015, along with a single cashout price. The reason for this is twofold:</p> <p>i) We have noted from industry response to earlier EBSCR proposals that a phased approach to PAR reduction is preferable to some participants who require more time to complete a full impact assessment and trade accordingly. InterGen believes that a reduction to PAR 50 at the start of Winter 2015 allows sufficient time for planning, analysis and requisite system changes.</p> <p>ii) As it stands, P305 also proposes implementing PAR 50 in Winter 2015 (then PAR1 in 2018). We have concerns about the interaction between P305 and P316 and would want to ensure that PAR 316 was not superseded by P305 (which contains more complicated, perhaps more time consuming proposals such as calculation of LoLP and therefore may be implemented post Winter 2015), resulting in the inconsistency of PAR1 being potentially increased again to PAR50. Regulatory instability such as this will potentially undermine investor confidence in the UK market, which is why we support PAR50 ahead of this winter.</p>

Respondent	Response	Rationale
DONG Energy	Yes	<p>DONG Energy supports a solution that builds on higher PAR values than the ones currently proposed, namely PAR450 or PAR350 with a staggered implementation. However, any change should be assessed in the way suggested in response to P305.</p> <p>Furthermore, we would welcome an assessment of potential further benefits from reduced gate closure time which from our point of view can reduce forecast errors for variable generation and demand forecasts and contribute to balancing efficiency and ultimately positively affect the objectives that are aimed for with this modification.</p>
Good Energy	Yes	<p>We believe that the following package, based on the various options already under consideration by the Workgroup, implements the first two of the four main elements of P305 that stemmed from Ofgem's Electricity Balancing Significant Code Review but addresses our main concerns with P316 set out in response to Question 1 and, taken overall, better facilitates the Applicable BSC Objectives:</p> <ol style="list-style-type: none"> <li>1. Introduction of single cash out prices as proposed for P316;</li> <li>2. Reduction in PAR to 250MWh upon implementation and then to 100MWh 12 months later – with RPAR set at 1MWh upon implementation as in P316;</li> </ol> <p>Referencing each of the two parts of the proposed package to how we consider they facilitate the Applicable BSC Objectives:</p> <p>Part 1: Promotes more efficient balancing by parties (d) thereby reducing balancing undertaken by Transmission Company (b); appears to benefit smaller parties (c).</p> <p>Part 2: Sharper cash out prices from lower PAR but with diluted impact of flagging/tagging concerns promotes more efficient balancing by parties (d) thereby reducing balancing undertaken by Transmission Company (b); rewards flexibility (c: generators) offset by adverse impact of extreme events on smaller parties (c: generators &amp; suppliers but ameliorated by phasing).</p>
VPI Immingham	No	n/a

Respondent	Response	Rationale
Centrica	Yes	We support the introduction of a higher PAR value within the range of 100-200 MWh. We believe this would allow parties to experience a lower (than current) PAR value which they should find easier to forecast and therefore they are more likely to balance their position, especially in times of system stress when the imbalance price could rise significantly. This better applicable objective b - the efficient, economic and co-ordinated operation of the National Electricity Transmission System.
RenewableUK	-	None provided.
Energy24 Limited	Yes	<p>Energy24 understands the driver for a single imbalance price but has concerns that this has the potential to drive undesirable side-effects such as parties aiming to imbalance one way or the other rather than seeking to deliver a balanced position, such as that delivered to energy24's services to smaller participants. Our services naturally provide a route to market and a set of tools for parties to balance, which in effect lends to system efficiency. The single price has the potential to negatively impact system efficiency and drive up the System Operator's balancing costs, thus not necessarily providing a suitable improvement to the workings of the market.</p> <p>More specifically, energy24 is not convinced that sufficient research has been completed into the practical attitudes to imbalancing taken by market participants acting in bad faith under the proposed regime of imbalance price calculation. Should a market participant be aware of factors leading them to expect the sorts of extremely high imbalance prices that might be brought about by unusual market stress, particularly coupled with other pricing interventions that might arise as a result of P305, a single imbalance price would provide a strong incentive to purchase electricity and imbalance long, aiming to receive this extremely high price in SSP for the period.</p> <p>Accordingly, energy24 would recommend an Alternative Modification which considers the change to PAR and RPAR only without the introduction of the single imbalance price.</p>
National Grid	Yes	A direct reduction in the PAR level from 500 to 1MWh denies industry the opportunity to assess how a reduction in the PAR volume impacts market behaviour before moving to single marginal pricing.

Respondent	Response	Rationale
		<p>As the industry transitions to adjust to this change, the improvement in efficiency that would benefit objectives (b) and (c) might not be realised.</p> <p>Therefore we believe that within the scope of P316, an alternative modification which combines single pricing with a less extreme initial reduction in PAR, would better facilitate the BSC Objectives. Initial changes in PAR volumes to 50 or 100MWh would seem more appropriate.</p>
Vattenfall	No	None provided.
Eggborough Power	No	<p>Eggborough would prefer to see a slightly higher PAR value initially used in P316 before moving to a simple marginal price. While there are benefits in simplicity, using the volume weighted average of the most expensive 50 MWh may be a better initial starting point. We believe that such an alternative could remove any really extreme prices that could arise and make the prices more predictable.</p> <p>For P305 we would suggest the static LOLP may be more robust, but feel the whole mechanism needs further development. Our concerns are that the signals given cannot be responded to and are therefore useless. However, as noted above, we would rather see this dealt with under a new modification.</p>
Haven Power Limited	No	<p>As noted in answer to question 6, we consider a PAR value of 50/MWh would be more appropriate relative to PAR1. Whilst this may be considered to represent an improvement on the Baseline (PAR500/MWh), when applied in conjunction with a single cash-out price, there is some doubt as to whether this will better facilitate the Applicable BSC Objectives. Our concerns with regards to the implementation of a Single Price are detailed in answer to question 10.</p>
SSE plc	No	None provided.
First Utility Limited	Yes	A PAR value of 250 is preferred. Please see our answers to the consultation on P305.
E.ON	Yes	<p>A potential alternative to reduce to 250MWh, 100MWh or possibly 50MWh upon implementation in 2015 or 2016 with no further change decided would be more measured. This would allow for monitoring of the impacts of any such change and other market developments before any further cashout changes were introduced. We are wary of</p>



Respondent	Response	Rationale
		trying to determine any change for 2018 as P305 attempts, which might require amending prior to implementation. If there is to be another step in P316, then in 12 months would be more appropriate, although that would allow little time to assess the full impact of any change made in 2015, alongside the multitude of other ongoing initiatives.
Utilita	Yes	<p>Utilita supports the introduction of a single imbalance price and supports the views of the workgroup on this aspect. However Utilita opposes the reduction in PAR to 1MWh. On this basis we believe that an acceptable alternative within the scope of P316 would be to implement a single imbalance price without changing PAR.</p> <p>A further alternative would be to implement a single imbalance price in conjunction with a modest reduction in PAR to 350MWh as previously proposed.</p> <p>However if this approach were taken, we believe that its impact post implementation should be carefully monitored to assess the combined change (of single imbalance price and reduction in PAR to 350MWh) in conjunction with the wider changes to the industry (implementation of a capacity mechanism and CfDs under EMR) prior to considering further change under a new modification and working group.</p>
EDF Energy	Yes	We believe that a PAR value of 100 MWh is preferable to 1 MWh, and would support the implementation of this alternate amendment. This is discussed further in Question 6, below.
Green Frog Power	No	<p>P316 is a nice simple modification. The only real alternatives are around the PAR volume, but we believe given the simplicity a straight move to single, fully marginal prices would be beneficial to the market and to consumers.</p> <p>The benefits of a single price appear to be agreed by everyone, including ourselves, so we will not belabour this point. Even without a change to the PAR volume we think this is an obvious improvement on the current, lopsided, pricing mechanism.</p> <p>It is unclear to us why such a high PAR volume is in use at all, and it is not convincing to us that a slow change to the correct price signal would benefit the functioning of the market in any material way. The</p>

Respondent	Response	Rationale
		<p>analysis supports the view, and the workgroup agrees, that the impacts in the reduction of PAR volumes is non-linear, so it is unclear what benefits slow change to the final improved model would bring.</p> <p>From our perspective, as a small generator struggling to enter the wholesale market, we believe that the muted price signals benefit large players with large positions hedged well in advance. These large players will be most inconvenienced by a change to more marginal pricing (in the context of single pricing). Elexon's own analysis demonstrated that smaller players, suppliers in particular, will not be unduly inconvenienced by a change to a lower PAR volume so long as it is in conjunction with a change to a single price.</p> <p>Delaying a change to sharper pricing of peak periods during the next couple of winters, when we are expecting tighter margins than seen for some time, could signal a lack of commitment to designing an efficient system that facilitates the restoration of the missing money to the market. This could result in an unnecessarily high capacity price in the next few capacity auctions. If market participants do not believe that the energy market will provide the appropriate level of reward, they will bid a higher capacity price. This is a particular risk with a phased reduction in PAR, since bids four years in advance will reflect the risk-weighted forecast of energy margins that lack sight of the impact of the PAR volumes in effect in the delivery year.</p> <p>It is very difficult for us to see any benefit of a phased approach to reducing the PAR volumes, and it is clear that the most effective PAR volume is as proposed in P316. Our second choice option is an alternative modification proposal with single pricing and PAR25. We believe it is crucial that there is early introduction of sharper and single pricing, and we think there are risks of delays with P305.</p>
Co-Operative Energy	Yes	As mentioned above, vertically integrated participants can use the generation assets they hold to hedge their short term imbalance risk and also to generate additional revenue from selling generated output into the balancing mechanism. Non-vertically integrated participants are unable to hedge this risk in this manner and are denied access to this alternative revenue stream from the balancing

Respondent	Response	Rationale
		<p>mechanism due to their lack of generation assets. This will therefore directly affect their ability to compete on a level playing field. Any reduction to PAR should be based on thorough, publicly available analysis and implemented separately following the implementation of single-priced cash-out and a period of at least twelve months to allow analysis of the effects of this. We would therefore suggest that single-priced cash-out be introduced as planned in November 2015 with reduction of PAR to a level to be determined following the necessary analysis in order to avoid negatively impacting competition to be introduced in Winter 2016.</p>

## Question 4: Will P316 impact your organisation?

### Summary

Yes	No	Neutral/No Comment	Other
23	2	0	0

### Responses

Respondent	Response	Rationale
ScottishPower	Yes	P316 will require a re-consideration and re-evaluation of the risks of more marginal imbalance pricing on our generation and supply businesses.
TMA Data Management Ltd	No	None provided.
GDF SUEZ UK-Turkey	Yes	<p>A move to a single imbalance price will:</p> <ul style="list-style-type: none"> <li>Necessitate the amendment of processes and reporting that rely on the data flows affected by the changes</li> <li>Necessitate a change to customer documentation as the industry definition of imbalance price will change</li> </ul> <p>GDF SUEZ would require a minimum of 6 months lead time to make these changes to processes and documentation.</p>
Drax Power Limited	Yes	There will be indirect impacts on our internal trading and risk processes if P316 is approved. Trading incentives will be altered due to the introduction of a single cash-out price and more marginal cash-out prices.
RWE Supply and Trading GmbH	Yes	P316 will improve the incentives to balance and improve overall market efficiency.
SmartestEnergy	Yes	<p>We anticipate imbalance costs to increase.</p> <p><b>Further confidential information provided.</b></p>
Flow Energy Ltd	Yes	The reduction in PAR will impact all suppliers, potentially exposing them to higher imbalance charges and greater imbalance risks. This impact is particularly acute in the non-half hourly independent sector. As NHH suppliers tend to trade against a shape rather than in individual half hours, there is less scope for trimming of a position in any given half hour to mitigate short notice imbalance or price events.

Respondent	Response	Rationale
InterGen UK Ltd.	Yes	Changes to PAR will impact all generators, independent and vertically integrated. InterGen, as an independent generator, relies on the market providing cost reflective signals in order to keep current plant open and to invest in new capacity. The 'missing money' problem has impacted independent generators in recent years, and the resulting lack of investment in the UK is what has brought forward the suite of proposals under EMR. The EBSCR work alongside that aims to reduce the dampening of cashout prices in order to incentivise adequate volumes of flexibility onto the system – essential in a market with increasing amounts of 'must-run' and intermittent generation. InterGen believes that sharpening cashout prices is absolutely necessary. The system cannot function without adequate flexibility. P316 will require InterGen to load follow more carefully, to balance our position with greater precision and reduce our imbalance costs. This will be to our benefit and to the benefit of our customers. It will impact our organisation, ultimately in a positive way.
DONG Energy	Yes	DONG Energy is likely to face a significantly increased level of balancing cost, being the average increase in SBP as identified from the EBSCR forward modelling results. DONG Energy will also become structurally exposed to the risk of SBP price spikes, which is of particular concern given the inherent variable nature of our generation portfolio. DONG Energy notes therefore that we will not be running at an 'average imbalanced position', unlike other more predictable and/or baseload forms of generation who may be able to manage this more effectively.
Good Energy	Yes	As a small renewable supplier some expected benefits of potentially lower imbalance charges from moving to single cash out prices are likely to be offset significantly by a lower PAR value - and more so the lower the PAR. Any net benefit from these changes could be dwarfed by the effect of extreme events occurring eg the wind does not blow as expected at times of system stress and our imbalance is penalised by very severe cash out prices due to the effect of a low PAR value. This is essentially an unmanageable risk which will add to the overall supply costs for the business.  We will also incur additional costs as set out in response to Question 5 below.

Respondent	Response	Rationale
VPI Immingham	Yes	As an electricity generator, P316 will change the monies that we pay / are paid. To facilitate this change, some minor modifications to our despatch models can be expected to reflect the new arrangements accurately. We would note that as an independent generator without a portfolio, should we have an unexpected outage, then we would be exposed to these high imbalance prices. However, we believe that this is the right approach as it encourages all parties to trade and cover their positions.
Centrica	Yes	<p>We consider that this change is likely to result in significant behavioural changes within the market, the risks and therefore costs of imbalance will increase and therefore we will need to review and change our current policies to ensure they remain robust for the future. This will include a re-assessment and update of our imbalance volume forecasting model, hedging policy and processes for forecasting the System Net Imbalance Volume (NIV) and cash-out prices.</p> <p>It is likely that current contracts may need to be re-opened and re-negotiated as a direct result of this modification.</p> <p>Additionally, we are very concerned over the impact this modification may have on intraday liquidity due to the lack of differential between the SSP and SBP under a single cash-out price. This may result in a large reduction in intraday liquidity with many players forced to finalise positions day ahead.</p>
RenewableUK	No	None provided.
Energy24 Limited	Yes	Please see all comments throughout this document.
National Grid	Yes	We do not perceive there to be any direct impacts to National Grid as a result of P316. However, as market participants' behaviour is likely to adapt in response to the change in imbalance price incentives, there may be changes to the balancing actions we are required to take in our role as System Operator.
Vattenfall	Yes	<b>Full confidential response provided.</b>
Eggborough Power	Yes	All changes to cash-out arrangements will have some impact on parties. However, the implementation timetable should allow for system changes.

Respondent	Response	Rationale
Haven Power Limited	Yes	There will be indirect impacts on our internal trading and risk processes if P316 is approved. Trading incentives will be altered due to the introduction of a single cash-out price and more marginal cash-out prices.
SSE plc	Yes	<p>Trading and back office systems and processes will need to alter data capture routines to manage new and changed data items; and assess new parameters and data when optimising the portfolio and verifying settlement charges.</p> <p>Risk systems and processes will need to adapt fully evaluate potential price scenarios under a single marginal cash-out regime.</p> <p>More complex, structured commercial contracts that reference outturn imbalance prices will need to be amended to manage the altered price structure from dual to single cash-out.</p>
First Utility Limited	Yes	Please see our answer to Q5 in our P305 response.
E.ON	Yes	<p>P316 would require fewer system and process changes than P305, however would still have a significant impact in increased risk of incurring high and volatile cashout prices, regardless of a move to Single pricing.</p> <p>We already invest heavily in demand forecasting to help balance our position and this is unlikely to change if P316 were implemented. However we would have to review our risk exposure, trading and hedging strategies for a world with more volatile cashout, particularly the risk of incurring very high charges if we happened to be short in relevant periods in a tight market, even without RSP/VoLL. Despite generally accurate forecasting, unexpected short positions in our supply, generation, or renewables businesses could all result in penal cost spikes which could not be predicted or managed. The party-type analysis also highlighted that a significant proportion of the negative impact on some parties could be owing to rrcr, i.e. ultimately resulting from other parties' actions which can also not be managed. Consequently customers might be impacted by changes beyond a party's control. Such increased risks and costs for the businesses, and related work to attempt to mitigate them, would ultimately increase costs to customers.</p>
Utilita	Yes	As set out above, Utilita expects that P316 would significantly increase imbalance prices as well as

Respondent	Response	Rationale
		decreasing their predictability. We do not believe that smaller suppliers would be able to mitigate these impacts – as set out above, due to the price signal not being available until after the event, the inability to influence NHH demand or hedge any more fully than is currently the case. We would expect that this will lead to Utilita (and other smaller suppliers) facing significantly increased imbalance costs which will have financial impacts both in terms of managing these costs and the associated credit requirements. This will lead to additional administrative costs. Based on our current analysis, we do not anticipate that the proposal would have significant system implications. The issues would be in costs to the business rather than system changes.
EDF Energy	Yes	Limited systems changes are required, regardless of the implementation option chosen. This would incur a relatively small cost, in terms of manpower and IT change. A significant number of staff would require training on the new trading arrangements. A number of internal control documents would require revision.
Green Frog Power	Yes	<p>All changes to cash-out arrangements are likely to impact systems for data flows, contract terms, etc. However, as the changes underpinning P316 are straightforward we believe those issues can be addressed before implementation.</p> <p>We will be motivated to build more peaking plant, thus to deliver exactly the kind of power that the market and the consumer currently requires. It would also allow us to bid a lower price into the Capacity Market at the next auction.</p> <p>Whereas P316 may result in disagreement amongst interested parties as to the precise extent to which it should be implemented (PAR1 vs PAR25, etc.) we believe that the underlying goal is not in dispute and that there is broad agreement that PAR volumes should be reduced from the current levels. Therefore, we believe there are no material risks that outweigh the benefits, from a systems or costs perspective, of implementing this modification on the proposed timescale.</p>
Co-Operative Energy	Yes	Yes, implementation of P316 will require a thorough reassessment of our hedging policy and the processes around this. Discussions will also need to be held with our trading counterparties around



Respondent	Response	Rationale
		<p>credit requirements as these will be increased by the heightened imbalance risk which implementation will result in. It is also likely that implementation will result in an increased requirement for BSC balancing credit provision and this will have a disproportionate cash flow impact for smaller participants thus further negatively affecting competition.</p>

## Question 5: Will your organisation incur any costs in implementing P316?

### Summary

Yes	No	Neutral/No Comment	Other
17	7	1	0

### Responses

Respondent	Response	Rationale
ScottishPower	No	P316 will not significantly impact our systems or internal processes but will require a reconsideration and re-evaluation of the risks of more marginal imbalance pricing on our generation and supply businesses.
TMA Data Management Ltd	No	None provided.
GDF SUEZ UK-Turkey	Yes/No	<p>The costs relating to the above activities are:</p> <p>Necessitate the amendment of processes and reporting that rely on the data flows affected by the changes:</p> <ul style="list-style-type: none"> <li>low Cost impact.</li> </ul> <p>Necessitate a change to customer documentation as the industry definition of imbalance price will change:</p> <ul style="list-style-type: none"> <li>Medium Cost impact. This will require input across a number of departments including Legal and there will be costs involved in sending customers revised documentation.</li> </ul> <p>It would make no difference whether P305 is implemented inside or outside of a normal BSC systems release, provided that there is at least a 6 month lead time.</p>
Drax Power Limited	Yes	Drax will incur some costs indirectly as a consequence of implementing P316. These costs will reflect the impacts on the organisation as detailed in the answer to question 4. However, it is difficult to quantify these costs at this time.
RWE Supply and Trading GmbH	No	Implementation of P316 is straightforward.
SmartestEnergy	No	Operationally no, since both the SBP and SSP will be retained, but set equal to each other, so there

Respondent	Response	Rationale
		should be no system impacts. Other variables such as LoLP, VoLL and PAR are not brought into our system.
Flow Energy Ltd	Yes	P316 is likely to increase imbalance costs, many of which it will not be possible for smaller, NHH, independent suppliers to mitigate. The costs are difficult to both quantify and mitigate. small suppliers subject to ~8% imbalance compared to larger suppliers ~2%
InterGen UK Ltd.	Yes	IT costs to implement a change in PAR are expected to be minimal.
DONG Energy	Yes	A full cost assessment can only be done when the modification has been implemented, however, it can be expected that we will incur higher transaction costs as a function of increased balancing and/or hedging actions taken, as well as the increased imbalance charges themselves.
Good Energy	Yes	<p>We would incur additional costs in taking remedial action to attempt to mitigate the risk of sharper imbalance prices, and in making changes to operational elements such as updated systems and processes. There may also be further costs in meeting increased credit requirements stemming from more volatile cash out prices.</p> <p>Specific examples of costs related to systems and processes are the need to amend the importing, processing and reporting of data flows that will be affected by the changes. Any new data flows required will also add additional cost to set up - and ongoing because they are not currently imported, processed or reported on.</p> <p>There will also be the multiple one off costs to update generator PPA's and customer Power Supply Agreements to mitigate imbalance and credit risks. Note that the more contracts in place the higher the relative cost on the supplier in question.</p> <p>A ballpark estimate of the one off costs involved to Good Energy, excluding the impact related to expected changes to imbalance costs, is between £25k and £150k.</p>
VPI Immingham	No	With the exception of different cash out costs, the only cost incurred will be the small amount of time required to update any corresponding analysis to reflect the revised approach. This is expected to be negligible.

Respondent	Response	Rationale
Centrica	Yes	<p>In order to manage the increased risk of high imbalance costs from P316, we will need to improve for forecasting modelling, this would involve system improvements and additional data requirements.</p> <p>The contract re-opening will require contract management and legal input, this could result in considerable expense, depending on the number of re-opened contracts.</p> <p>With the introduction of a single cash-out price and the corresponding reduction to intraday liquidity, we believe this will result in increased imbalance costs as parties will be less able to contract imbalances positions intraday.</p>
RenewableUK	No	None provided.
Energy24 Limited	Yes	Please see all comments throughout this document.
National Grid	No	None provided.
Vattenfall	Yes	<p>The trading arm of Vattenfall will incur one off costs for development, implementation, testing and training for the changes to the booking and scheduling processes</p> <p>In addition to this, the trading arm of Vattenfall will incur ongoing costs of higher imbalance costs, and resulting higher credit requirements.</p> <p>In addition to this, the generation business will incur ongoing increase in the cost of PPAs. This will be reflective of the increase of imbalance costs. This impact is further discussed in question 7</p>
Eggborough Power	Yes	We will face some cost in altering contracts and IT systems. We believe the benefits will outweigh these costs.
Haven Power Limited	Yes	Haven will incur some costs indirectly as a consequence of implementing P316. These costs will reflect the impacts on the organisation as detailed in the answer to question 4. However, it is difficult to quantify these costs at this time.
SSE plc	Yes	The vast majority of costs are one-off costs to amend systems and processes to adapt to the new methods of formulating price and volume and verifying imbalance charges.

Respondent	Response	Rationale
		<p>Set up costs for Wholesale business should be low to medium cost (10k – 100k).</p> <p>There is an additional project management overhead associated with implementing change outside of a scheduled BSC System Release; however it would not be of great concern if an ad-hoc release were required as our preference is to work towards a Winter 2015 implementation.</p>
First Utility Limited	Yes	Please see our answer to Q6 in our P305 response.
E.ON	Yes	<p>Implementation in a normal BSC Systems Release is always preferable as time and budget is set aside for IT to implement regular releases. Outside a normal release inevitably incurs further costs and needs more lead-time for approval, which can take up to three months before work can start. However were P316 to be implemented, IT changes should be minimal. Also no change/cost would be expected to enhance demand forecasting, where we do not believe that any particular improvements can be made anyway (to forecasting demand, conventional plant, or wind output). However this emphasizes the difficulty that sharper cashout prices present: parties have very limited ability to manage/respond to the increased risk. In addition to a risk premium that these increased risks will require, if cashout became more volatile, cashflow and credit impacts are also likely; the smaller the PAR volume the greater these risks and costs would be, ultimately feeding through to customer bills.</p>
Utilita	Yes	<p>As above, we do not expect significant system changes, but we do expect changes to the costs the business would face in terms of the impact of the higher, more volatile and less predictable imbalance prices in conjunction with the increased credit cover requirements and administrative costs. We expect these costs would increase more, the greater the change which had been made to PAR.</p> <p>If the alternative suggested above were considered to introduce a single imbalance price and omit a change to PAR, we believe that these anticipated business costs would be significantly reduced. We would still expect some costs of internal process change, but these would be lower.</p>
EDF Energy	Yes	<p>The IT change as a result of this modification is likely to cost c. £50k.</p> <p>In addition, we anticipate spending approximately</p>

Respondent	Response	Rationale
		0.75 man-year-equivalent on non-IT change when making the necessary changes to our business.  <b>Further confidential information provided.</b>
Green Frog Power	Yes	There will be some very modest costs in modifying some systems and resources, but we strongly believe that the benefit of P316 far outweigh these costs. We think it would be sensible to maintain the proposed timetable of November implementation, aligned with the normal BSC Systems Release timetable. However, as we do not anticipate high costs or inconvenience, we do not think this should be the deciding factor in the acceptance of this proposed modification.
Co-Operative Energy	Yes	Yes, it is likely that the reduction of PAR to the extent proposed will result in heightened credit requirements to market participants for both balancing and bilateral trading purposes as the risk created by potentially much higher cash-out prices will need to be factored in. In the case of non-vertically integrated participants with regard to bilateral trading purposes these additional credit requirements are likely to take the form of cash or a letter of credit, thus tying up working capital which cannot then be invested in growing the business. This will impact the ability of smaller non-vertically integrated participants to effectively compete with the larger vertically integrated participants on a level playing field.

Question 6: Please provide your views on what PAR value(s) should be proposed and whether you believe a phased approach should be adopted.

## Responses

Respondent	Rationale
ScottishPower	If Parties are unable to respond rationally and reflect changes in cash-out price in their economic decisions then the change will not deliver increased efficiency in the market arrangements. By <b>staging the reduction in PAR and holding it at 50MWh</b> Parties would have time to respond to the change by adjusting their contracting their hedging strategies and reflecting the increased value of flexibility in both their balancing services and consumer product costs. A post-change review should be carried out to determine whether the benefits from a move to PAR = 50MWh have been delivered following which any Party would be able to raise a Modification for a further reduction for example to PAR = 1MWh.
TMA Data Management Ltd	We agree with the proposer that a PAR and RPAR of <b>1MWh</b> could and should be introduced from P316 implementation date. From the information provided for P316, a PAR of 1MWh would include an average of 3 to 4 actions as opposed to 6 for 50 MWh.
GDF SUEZ UK-Turkey	GDF SUEZ supports a reduction to PAR <b>100MWh</b> . This should be in place for at least a year to allow the market to get used to a single cashout price and after that BSC Parties should be free to raise a modification to change the PAR value. A 6 month lead time for any further change will be needed for the reasons highlighted in Q4.
Drax Power Limited	We believe a more cautious approach should be adopted in lowering the PAR value. We do not believe that the PAR value should be lowered to 1 MWh as we are concerned about the impact of system pollution. We consider a PAR value in the range <b>50MWh – 100 MWh</b> to be appropriate if Ofgem wishes to strengthen cash-out price signals. A PAR value in this range would also reduce the potential for system pollution.  If a value in this range is adopted, we do not consider a phased approach to be necessary.
RWE Supply and Trading GmbH	<b>The PAR values proposed under P316 should be aligned with those proposed under P305 original.</b> As this currently envisages phasing then this approach should be adopted for P316.
SmartestEnergy	We have come to the conclusion that built in phasing is not a good idea. However, this modification could be used to lower PAR at a date after November 2015 with P305 implemented in November with a higher PAR value, say 100, with P316 used to reduce PAR further, say to 50 a year later.

Respondent	Rationale
Flow Energy Ltd	A graduated reduction of PAR to <b>250 MWh and then to 100 MWh after 12 months</b> will help mitigate some of the shocks to the sector from potential higher imbalance charges and greater imbalance risks, this will help better facilitate competition in the sector as per BSC objective C. Other alternatives will expose suppliers to significant costs and changes too rapidly.
InterGen UK Ltd.	As stated in our response to Question 3, InterGen supports the implementation of <b>PAR 50 ahead of Winter 2015, reducing to PAR 1 by 2018</b> , for the reasons stated above.
DONG Energy	As explained in the response to Question 1, DONG Energy is not convinced that a reduced PAR increases the efficiency of the electricity and balancing market. DONG Energy believes the current balancing mechanism framework already provides sufficient incentives to facilitate an efficient functioning of the market. However, in the case that a PAR reduction is implemented a staggered, slow digression should be adopted to give market participants the chance to adapt to the changed environment and to create strategies to mitigate at least part of the risk resulting from higher imbalance prices.
Good Energy	<p>We propose a reduction in PAR to <b>250MWh upon implementation and then to 100MWh 12 months later</b>, one of the options being considered by the Workgroup.</p> <p>The historic analysis undertaken by Elexon shows that there appears to be a more significant increase in cash out prices from PAR reducing from 250 to 100MWh than for any of the other step changes in PAR under consideration by the Workgroup, thus achieving much of the required benefits of sharpening of prices. However, with PAR at 100MWh the concerns we have with possible distortions to cash out prices due to erroneous flagging and tagging of balancing actions are significantly diluted.</p> <p>With PAR currently at 500MWh we would prefer an initial reduction to 250MWh so that we are able to gradually gain experience of the more challenging market and give us more time to seek to mitigate the associated risks.</p>
VPI Immingham	<p>In our opinion, PAR should be modified to <b>1MWh</b> as soon as possible to truly reflect the marginal price of balancing the system. However, we do believe that P316 and P305 should be aligned to involve changing PAR in different directions as a result of separate modifications. Given the timeframes and notice given, we believe that a move to a PAR of 1MWh gives adequate time for participants to prepare for the modification without a phased approach being required.</p> <p>We do not believe that a higher PAR value, e.g. 250MWh, would have any significant impact on behaviour due to the small nature of the change and therefore would not support an alternative modification of this amount. Currently, the true cost of balancing</p>



Respondent	Rationale
	the system is not reflected in cash out and a small change in PAR would continue this trend and would undermine the intention of the Electricity Balancing Significant Code Review.
Centrica	We believe the initial implementation of a lower PAR should be in the region between <b>100-200MWh</b> . This, we believe, would be a prudent reduction to ensure that a noticeable impact to cash-out prices is achieved in a controlled manner. Over time, the impact of this reduction can be analysed and if further reductions are deemed necessary, these can be introduced via a subsequent BSC modification.
RenewableUK	<p>RenewableUK’s position has consistently been that moves to reduce PAR should be implemented in a phased manner, giving market participants adequate opportunity to adjust to the new situation. Variable renewable generators already receive appropriate incentives to improve forecasting in order to minimise exposure to imbalance charges, given the relatively limited scope to do better. If incentives are to be sharpened, new approaches will be needed to limit the impact, and these will need more time to implement.</p> <p>Of the options set out in the consultation document for P305, RenewableUK would prefer the one which has an initial move to <b>PAR250 followed by a further move to PAR100 12 months later</b>. At that point a review would be appropriate to decide if a further step to PAR1 is justified. However, we believe other options with smaller initial steps should be investigated, and also that reviews to ensure that objectives are being met and particular classes of generator not overly disadvantaged be undertaken before later steps down are taken.</p>
Energy24 Limited	<p>Energy24 agrees with the workshop members who felt that a staggered approach to lowering the PAR value would be beneficial, and that a less marginal value should be the first step. Energy24 draws attention to the cashout impact upon existing market participants (particularly smaller independents on both the generation and supply sides of the market) who may be adversely impacted in the near term to support changes designed for the long term. Energy24 provides services to assist smaller parties; however, it is energy24’s view that higher cash-out prices will drive parties to greater balancing actions, but this, at times of stress in particular, is likely to reduce short-term liquidity (as long or balanced parties will not wish to sell, for fear of ending up short) thus reducing the ability for a party, be they large or small, to manage their positions in near real time.</p> <p>In a response to the Energy Balancing Significant Code Review, energy24 proposed a <b>reduction in the PAR value by 100 each year for five years</b>, i.e. PAR400 in 2015, PAR300 in 2016 and so on, and proposes the same approach as a preferred option once again. Of the suggested alternatives, energy24 would most prefer the proposal of lowering PAR to 250MWh upon implementation</p>

Respondent	Rationale
	then 100MWh 12 months later.
National Grid	<p>Our preference is for a phased approach to a reduction in the PAR value that is determined and published at the outset (as opposed to implementing a second step in a later modification). This provides a more cautious approach which gives the industry an opportunity to gauge and understand how market participant behaviour will adapt in response to the change in incentives brought about by a reduction in the PAR volume.</p> <p>Regarding PAR values, <b>50MWh</b> upon implementation would allow this to take place rather than a direct single step change to 1MWh. If 50MWh were considered too low as an initial step, we would support an initial implementation of 100MWh PAR volume.</p>
Vattenfall	<p>Vattenfall supports the proposal of a move to <b>250MWh on implementation, moving to 100MWh 12 months later</b>. Any further reductions in PAR we believe should be after further analysis, and in consultation with industry. This will enable parties to assess the impact of the prior reductions in PAR on their business, and perhaps adapt their position outlined in prior consultations.</p>
Eggborough Power	<p>We consider that PAR should be set to <b>50 MWh at the time of implementation with a commitment to move to 1 MWh in November 2016</b>. We have some concerns that more marginal prices may create some price spikes. A larger PAR may remove a few very spiky prices that are not representative of system stress as a whole.</p> <p>For P305 there seems to be a good case for moving to more marginal prices as a first step towards implementing Ofgem's package. These may also provide a way to allow for further development around the more complex elements.</p>
Haven Power Limited	<p>We believe a more cautious approach should be adopted in lowering the PAR value. We do not believe that the PAR value should be lowered to 1 MWh as we are concerned about the impact of system pollution. We consider a PAR value of <b>50 MWh</b> to be appropriate to strengthen cash-out price signals. A PAR value in this range would also reduce the potential for system pollution. If this value in this range is adopted, we do not consider a phased approach to be necessary.</p>
SSE plc	<p>SSE is happy to support the introduction of <b>PAR1</b> from Winter 2015. However we recognise that this runs counter to Ofgem's EBSCR conclusions (and National Grid's proposal in P305); and the intent to provide a more gradual introduction of marginal pricing to the market. We would therefore advocate the introduction of PAR50 from Winter 15, reduced to PAR1 for Winter 18, as a pragmatic compromise.</p>
First Utility Limited	<p>Please see our answer to Q7 in our P305 response. <b>[250MWH]</b></p>

Respondent	Rationale
E.ON	<p>The desirability of phasing or not depends upon the level of PAR applying. As per our answer to question three, while we see no definite case for change, <b>reducing to PAR 250MWh, 100MWh or possibly 50MWh upon implementation in 2015 or 2016 with no further change decided would be more measured.</b> This would allow monitoring of the impacts of any such change and other recent developments before any further cashout changes were introduced. We are doubtful of the merits of trying to determine any change for beyond 2015 or 2016.</p>
Utilita	<p>We do not believe that PAR should be reduced at this point. We believe that it would be appropriate to introduce an alternative to P316 which would move to a single imbalance price and not change PAR. The impact of this change (in conjunction with wider change such as EMR) should be monitored before further change is considered. If a change to PAR is considered, we would recommend a modest change to <b>350MWh</b> and as before the impact to be observed before further implementation is considered.</p>
EDF Energy	<p>Small Price Average Reference Volume (PAR) values such as 50 MWh or 1 MWh could significantly increase the volatility of imbalance prices, due to the granularity of offered balancing action prices at the margin in some circumstances. Without a cleared price for balancing actions, and without an administered scarcity price floor in each period, participants must estimate the value of balancing actions, and the likely interaction of price with dynamic parameters of demand and generation, when submitting prices. Small values of PAR increase the risk of price manipulation if any concentration of market power in balancing were to occur. Artificial volatility and price manipulation would have a negative effect on competition in the purchase and sale of electricity, counter to BSC Objective C. Increasing the average number of actions which set the market price would help to dilute market power.</p> <p>We note that the Authority believes that an average of three or four actions would set the price under a 1 MWh PAR value, indicating expectation of a large number of bids or offers (as appropriate) clustered together at the same or similar prices.</p> <p>When National Grid dispatch units which were originally planned to not run, to deal with a significantly short system, PAR 1 would almost inevitably result in acceptances from a single bid-offer pair from those units – which typically have a SEL of more than 100 MW – setting the imbalance price.</p> <p>Very small PAR values would also exacerbate anomalies between the real-world features of physical balancing compared with the arbitrary half-hourly resolution of trading and imbalance measurement. Real balancing requires consideration of dynamic behaviour of generators and demand and network constraints, within half-hours and spanning half-hours. The price of balancing actions affecting only part of a half-hour, or actions spilling over</p>

Respondent	Rationale
	<p>from other half-hours, or due to network or other system constraints, may bear no correlation with the real-time imbalance of a particular participant. Exposure of individual participants to imbalance prices which are not reflective of the costs they cause is unlikely to be efficient. Use of a larger PAR value dilutes the effect of such anomalies over the half-hourly resolution of trading and imbalance measurement.</p> <p>We believe that a PAR value of <b>100 MWh</b> would result in increased (but not extreme) volatility, and would reduce scope for anomalies due to interactions between real-life real-time balancing and half-hourly measurement, trading and imbalance, and also reduce any potential for price manipulation by individual participants. If further change to PAR were warranted in the future, this could be done through a relatively simple BSC modification.</p> <p>We do not believe that PAR values should be subject to an automatic change at some point in the future. We believe that it is impossible to accurately model the effect that the proposed changes to the cashout arrangements would have on market participants, and we would look for empirical evidence on the effects of these changes before supporting further change. Given that a BSC Modification to change PAR could be raised and assessed relatively quickly, we feel it would be better for the Industry to take stock following implementation of this modification, and take an evidence-based decision on whether a further reduction was desirable.</p>
Green Frog Power	<p>We would like to see PAR set to <b>1MWh</b> at the time of implementation in November 2015. We can understand the concerns over more marginal prices, as this seems like a dramatic change, but with a simple single price system, we believe, and as supported by Elexon’s analysis, the market can and will respond, to the benefit of improved market liquidity and a more efficient system.</p> <p>As noted above, Elexon’s analysis indicates that the impact of reducing PAR volumes is non-linear and therefore a small reduction is not necessarily indicative of what the results of a larger change might be. In addition Elexon’s analysis indicates that the move to a single cash-out price offsets potentially worrisome consequences (for small players particularly). If a decision is made to reduce PAR volumes in an incremental way, yet move to a single price immediately, then the baseline for analysis of further PAR reductions will be biased. We believe there is a strong risk that the final PAR volume reduction may not then occur – jeopardising the integrity of the market and the potential benefits of cash out reform.</p> <p>Because P316 represents an incremental change in terms of the types of changes compared to P305, we believe that P316 gives</p>

Respondent	Rationale
	industry time to improve some of the more complex and potentially controversial elements of P305.
Co-Operative Energy	It is in our view essential that any reduction to PAR be delayed until the market has had a sufficient period of time to adjust to the prior introduction of single-priced cash-out. We would suggest the <b>introduction of single priced cash-out in November 2015 and any reduction to PAR not earlier than twelve months following this.</b>

Question 7: Do you believe that commercial terms offered to intermittent generators, under power purchase agreements, will be impacted by any reassessment of balancing risks which may arise following P316?

## Summary

Yes	No	Neutral/No Comment	Other
16	1	7	1

## Responses

Respondent	Response	Rationale
ScottishPower	Yes	Intermittent generators have intrinsically less certainty over their output and therefore greater exposure to imbalance prices than conventional generators. The purchaser of a power purchase agreement (PPA) with an intermittent generator may have to factor in the increased exposure to uncertain imbalance cashflows arising from the more volatile and extreme imbalance prices introduced by this Modification. The market will have to determine a competitive price for PPAs based upon its assessment of these risks.
TMA Data Management Ltd	No Comment	None provided.
GDF SUEZ UK-Turkey	Possibly	Windfarms will pass the balancing risk onto their PPA provider. With most PPAs having a tenor of 5-15 years then for the most part, the cashout changes are only a matter when a new contract is being negotiated. However, some PPA's may contain clauses stating that a renegotiation of price will take place if balancing costs exceed a certain level.
Drax Power Limited	n/a	We are not best suited to answer this question.
RWE Supply and Trading GmbH	No	We recognise the increase balancing costs may impact on the commercial terms for intermittent generators.
SmartestEnergy	Yes	We anticipate imbalance costs to increase. <b>Further confidential information provided.</b>
Flow Energy Ltd	Yes/No	This is not an area of the industry which we are in a position to comment on.
InterGen UK Ltd.	Yes/No	No comment at this time

Respondent	Response	Rationale
DONG Energy	Yes	DONG Energy does believe that commercial terms offered to generators with variable fuel sources under PPAs will be negatively impacted by a reassessment of the balancing risk resulting from P305. While we expect that there will only be a minor impact from a single price regime compared to a dual price system, we believe that the price for electricity determined in PPAs for these generators will be significantly lower if balancing costs are to rise from higher system prices.
Good Energy	Yes	We believe that commercial terms offered to intermittent generators, under power purchase agreements, will be negatively impacted by a reassessment of balancing risks. There will be multiple one off costs to update generator PPA's to mitigate both imbalance and credit risks and the more contracts in place the higher the relative cost on the supplier in question. How the increased risk itself is reflected in the terms for individual generators will depend on that generator's appetite for risk.
VPI Immingham	Yes	We currently neither offer nor are in receipt of PPAs and are therefore not close to the existing commercial arrangements to comment in detail. However, we believe that the commercial terms offered under PPAs could be impacted, but this is a reflection of the improved balancing signals available to the market – signals that should impact all market participants regardless of how their electricity is generated or sold. Given that PPAs are generally based on a discount against some market reference price with a percentage discount to reflect balancing, higher balancing costs are likely to reflect this discount. However, PPAs are commercial agreements and terms should continue to be agreed on commercial terms by market participants.
Centrica	Yes	If there is an increase in balancing costs it is expected that offtakers will factor this into discounts given for renewable PPAs. Any reduction to within-day liquidity could have an incremental impact on imbalance costs and discounts may increase. Lower within-day liquidity presents offtakers with an increased risk of not being able to make short term trades to manage out their imbalance position.
RenewableUK	Yes	As balancing charges are priced more marginally to reflect the cost of actions, then variable generators will inevitably see greater discounts applied to the

Respondent	Response	Rationale
		<p>prices offered in power purchase agreements, since their ability to respond to these signals is limited.</p> <p>The move to single cash-out may mitigate this effect, but this is untested and, since PPAs are generally long term instruments, offtakers will likely take a conservative view of its benefit while taking a worst-case view of the charges overall. In the short to medium term, this will cause difficulties for developers bidding projects into the Contract for Difference auctions, as they will be unsure what discount they will have to take into account when calculating strike price offers. An immediate move to PAR1 would exacerbate this situation.</p>
Energy24 Limited	Yes	<p>It would be expected that off takers of generators, in particular intermittent generators would have to consider the likelihood of more marginal pricing and how this increased risk is translated into the commercial terms offers. It would be expected that the price offered may be reduced to allow for this scenario.</p>
National Grid	n/a	<p>Commercial terms offered to intermittent generators may be impacted by a change in the imbalance risk resulting from P316; however National Grid is not best placed to comment on the nature or extent of this potential impact.</p>
Vattenfall	Yes	<p>The cost of a PPA offered to a wind generator covers the cost of balancing. It is difficult to say exactly how the PPA market will adapt to the new legislation. However, some clear possibilities are likely</p> <ol style="list-style-type: none"> <li>1) The cost of the PPA which covers the cost of imbalance to the generator is going to increase, to reflect the increased cost of balancing for the off-taker.</li> <li>2) In the short term, there might also be a substantial risk margin included in the PPA cost to the generator, and the impact on pricing is not yet known. This might lead to intermittent generators choosing to cover the risk of imbalance outside of the PAA. This approach can be seen elsewhere in Europe. This would expose the generator to unknown pricing risk</li> </ol> <p>As intermittent generators are more likely to be affected by balancing measures due to the less predictable nature of the generation, this cost is likely to increase the PPA costs by a relatively larger factor than non-intermittent generators. The</p>



Respondent	Response	Rationale
		<p>quantification of this depends on the geographical location of this plant, the size, the variability of the wind (if a wind generator), the relationship between PPA provider and generator, the ability to diffuse costs through a large portfolio and range of other technologies – and ability of the generator to balance through their own portfolio etc. Therefore the impact will be different for different market players.</p> <p>It should be recognised here that one of the unintended consequences of the increase in PPA costs, will be an inflation of strike price bids to accommodate the increased cost. This will increase the cost to the consumer for new renewable energy plant, particularly intermittent generators. This will also affect the competitiveness of intermittent generators within the mix of technologies in each auction Pot. It goes against the BSC Objectives (C) and (F).</p> <p>It is important to also note, as has been recognised in the report, that the ability of intermittent generators to mitigate the impact of this action is limited by the accuracy of forecasting. This is means that although the behaviour of an intermittent generator will adapt, there will inevitably be periods in which the forecasting is inaccurate, and imbalance costs will be incurred. The sharpening then of the prices will be particularly felt by intermittent generators.</p> <p>In addition to this, there will be an interaction with negative pricing and the terms of the CfD which out of necessity hasn't been considered by the working group. The sharpening of prices and the potential increase in the number of negative pricing periods increases the likelihood of a sufficient number of consecutive hours of negative pricing to materially change the level of support received by the project under the CfD. It is not yet know to what degree this will be felt because</p> <p>a) It is not clear how much this will increase the incidence of negative pricing; and</p> <p>b) It has not been decided how precisely negative pricing will be treated under the CfD.</p> <p>However, it is highly likely that the EU 6 hour rule will be applied in some form, and this will discourage intermittent generators from generating. Anything which causes the likelihood of negative</p>

Respondent	Response	Rationale
		pricing reduces the amount of time an intermittent generator can export. This is particularly relevant to intermittent plant as they are less in control of the fuel source, meaning that they can't necessarily make up this lost load at other times in the year. This ultimately means that more installed capacity is needed to deliver the same number of MWh. Even though the impact of this might be marginal now, it is likely to increase as the proportion of intermittent generation in the nation energy mix increases. This can be seen in Germany. This is also in contravention of the BSC Objective (F)
Eggborough Power	Yes	All changes to cash-out will result in players reassessing their commercial arrangements and where the balancing risk sits. Intermittent generation creates additional system costs as it cannot forecast its output as accurately as other parties and these generators should face the costs they create. The question for Ofgem is do these modifications meet the relevant objective, and it is difficult to see that the potential changes in risks will not alter the competitive environment, but it does not appear unduly discriminatory against intermittent plant.
Haven Power Limited	Yes	Due to the difficulties in predicting the consequences of such a large reform, it is likely that parties will be very cautious about the terms that they offer under PPAs.
SSE plc	Yes/No	This is a matter for PPA sellers to comment upon.
First Utility Limited	Yes	Please see our answer to Q14 in our P305 response.
E.ON	Yes	Intermittent generators would be likely to find greater discounts applied to the prices offered in Power Purchase Agreements. Wind can now be forecast with a good degree of accuracy, but with limited ability to control output, naturally purchasers are likely to take a cautious approach if imbalance costs are expected to become higher/more volatile.
Utilita	n/a	No comments.
EDF Energy	Yes	A reduction in PAR is designed to lead to more volatile cashout prices, while single price should permit more effective netting of shortfall and spill imbalances. As there is some correlation between intermittent generation and system imbalance, so shortfall and spill do not fully cancel over time,

Respondent	Response	Rationale
		<p>there is likely to be an increase in the balancing risk cost applied to these contracts.</p> <p>A move to a single cashout price may reduce within-day liquidity, as described in Question 10. This may increase the balancing risk on the PPAs, increasing the costs to the client generators.</p>
Green Frog Power	Yes	<p>We believe that the commercial terms offered to a number of different parties (ourselves included) may well alter, but that could represent opportunities as well as risks. This is the nature of the market where rule changes are not uncommon; parties adjust arrangements in light of the market structure. Ofgem believed that the signals need to be sharpened to improve balancing, and that will include the signals to all forms of generation and the role they play in helping the system to balance.</p>
Co-Operative Energy	Yes	<p>Yes, we believe this will have a negative impact on terms offered to intermittent generators as participants purchasing power from these will face increased imbalance risk in situations where intermittent generators are unable to deliver generation output at the times and in the volumes agreed.</p>

Question 8: Do you believe that there will be any impact or interaction between P316 and the Capacity Market & Contract for Difference arrangements?

### Summary

Yes	No	Neutral/No Comment	Other
12	9	4	0

### Responses

Respondent	Response	Rationale
ScottishPower	Yes	Only time will tell if the introduction of P316 will impact traded products as some envisage. Relying on additional revenues from this change, and therefore altering capacity mechanism bids, will be down to the risk appetite of individual companies. It may take a considerable period of sustained change before some companies are willing to rely on the new price signals. The increased risk from more extreme and volatile imbalance prices may increase the revenue (and strike prices) sought under the CfD arrangements by intermittent generators.
TMA Data Management Ltd	No Comment	None provided.
GDF SUEZ UK-Turkey	Yes/No	None provided.
Drax Power Limited	No	We consider there will be negligible impact on the Capacity Mechanism and Contract for Difference arrangements.
RWE Supply and Trading GmbH	No	The energy market will continue to function alongside the capacity market and CFD arrangements.
SmartestEnergy	No	None provided.
Flow Energy Ltd	No	None provided.
InterGen UK Ltd.	No	With respect to the Capacity Market, no. Industry has known the outcome of the EBSCR since early 2014 and therefore should have forecast a PAR 1 condition into their market assessment and subsequent Capacity Market bidding strategy for 2018. Implementing a phased reduction in PAR ahead of the first Capacity Market Delivery date (winter 2018) should not have a material impact to future CM bidding strategy (2019 and beyond).

Respondent	Response	Rationale
DONG Energy	Yes	DONG Energy believes that with further evolution of the Capacity Mechanism there will be a more favourable market environment for flexible generation and Demand Side Response leading to a more efficient balancing market as a result. However, DONG Energy does not follow the rationale that higher imbalance prices would have a downward effect on bids in the Capacity Mechanism and therefore provides lower cost to consumers.
Good Energy	Yes	We expect the reassessment of balancing risks to be reflected into the strike price under a FIT/CFD. A portfolio generator may be better placed to manage those risks than a single site, which means single sites will have to seek a higher strike price, and in any auction they would probably lose out to portfolio generators. Therefore the impact will be a restraint on competition in generation from new market entrants and smaller players in the market.
VPI Immingham	Yes	<p><b>Capacity Mechanism</b></p> <p>The proposed changes should go some way to addressing the missing money issue that is partly what the capacity mechanism is addressing, but not enough to encourage investment in new, reliable power generation. This is a result of the low load factors that thermal plant are expected to see in the future as increasing amounts of renewable generation come on line. In theory, P316 could result in lower bids into the capacity mechanism in future, but there is so much regulatory uncertainty in the market and potential for unexpected future changes (e.g. new policy as a result of a change in government or changes as a result of the CMA investigation), that it would be very difficult to isolate the impact of P316 itself. With much gas generation in a very precarious position and flexibility not currently valued under the existing market arrangements, the proposals should better reflect flexibility and improve the situation for clean, efficient gas generators. It also provides another route to recover fixed costs for generators and therefore should contribute towards security of supply.</p> <p><b>Contracts for Difference</b></p> <p>In terms of Contracts for Difference, again intermittent generators could be expected to be exposed to higher balancing costs which could</p>

Respondent	Response	Rationale
		increase their costs. However, closer to real time, the exact output is highly forecastable allowing generators to take mitigating actions to ensure that they are balanced. However, isolating the impact overall would be very difficult with many different policies and Regulations driving costs both higher and lower. However, having a fixed strike price does mean a degree of certainty or these projects and the incentive to balance still increases to maximise profitability.
Centrica	-	None provided.
RenewableUK	Yes	As noted in the answer to Question 7, since developers will have to price in increased but uncertain discounts in offtake agreements to their strike price bids, there may be instances where projects bid too low and suffer 'winner's curse' in the CfD auction.
Energy24 Limited	Yes/No	Energy24 has no comment on this.
National Grid	Yes	The Capacity Market and the EBSCR policies complement each other to the extent that both seek to address the issue of 'missing money' in terms of the income streams available to capacity providers to recover costs. For the delivery periods from which both sets of policies come into effect (winter 2018/19), we would expect both revenue streams to be taken into account by market participants and factored into capacity market bids and the out-turned imbalance prices.
Vattenfall	Yes	<p>Yes. This is discussed more fully in question 7</p> <p>1) The sharpening of marginal pricing means that it is likely there will be more negative pricing periods. This means that the impact of the treatment of negative pricing under the CfD is likely to be higher. As a result of this, industry will need to have a lower impact policy in place for negative pricing so that it doesn't adversely impact the value of projects under development/with secured CfDs. This lower valuation and increased uncertainty around impact would be reflected in higher strike price bids.</p> <p>2) The increase in the cost of PPAs is also likely to inflate the strike prices. The possibility that generators start taking on an unknown imbalance risk would also be reflected in returns expectations. This would also inflate strike price bids.</p>

Respondent	Response	Rationale
Eggborough Power	No	<p>Under P316 there do not seem to be issues with the CM.</p> <p>For P305 the use of cash-out to VOLL would seem to interact with the CM penalties. Arrangements that set a high price in an emergency-type situation can create a risk that there is a "race to the top". This means that under a CM warning the prices could race to VOLL. Eggborough believes this is one of the issues under P305 that needs further consideration as it seems difficult to justify prices at VOLL if not a single customer notices that there is a voltage dip.</p>
Haven Power Limited	No	We consider there will be negligible impact on the Capacity Mechanism and Contract for Difference arrangements.
SSE plc	No	SSE does not believe that the changes proposed will impact detrimentally the EMR arrangements. Indeed sharper cash-out should complement the Capacity Mechanism by ensuring that sufficient flexible capacity is brought forward to be able to respond to sharper scarcity signals.
First Utility Limited	Yes	Please see our answer to Q15 in our P305 response.
E.ON	No	The CM is about ensuring that capacity is available when necessary. The prospect of sharper imbalance prices arising if P316 is implemented would only impact the costs to those parties when operating of being out of balance.
Utilita	Yes	<p>The changes being implemented are significant. Utilita is of the opinion that there would be an interaction between P316 and the capacity market and CfD arrangements. On this basis, we believe it would be beneficial to implement a single imbalance price on the timescale proposed for P316, and then monitor the impact in conjunction with the CM and CfD changes before considering changes to PAR.</p> <p>It is also important to consider the interaction of the proposal with the wider industry arrangements. As a result of developments, the industry is now in a position where there are a number of mechanisms which do the same thing or have similar objectives – the capacity market, CfDs, options for NETSO actions plus this and similar proposals to amend PAR, imbalance prices, introducing reserve scarcity pricing and demand control pricing.</p> <p>We are seriously concerned that implementation of such diverse mechanisms without assessing the</p>

Respondent	Response	Rationale
		incremental impacts prior to introducing further change carries its own risks. As above, Utilita believes simply implementing a single imbalance price at this time and observing the impact in conjunction with the capacity mechanism and CfDs would be the best option.
EDF Energy	Yes	<p>The Capacity Mechanism and Contract for Difference arrangements are designed to improve the security of supply for GB.</p> <p>Following a Capacity Mechanism Warning, parties who have capacity agreements would be under an obligation to self-dispatch to meet their agreements. This has the potential to result in parties being exposed to cashout prices if they are not able to trade out any consequent long position in time. We would expect competitive bid-down prices from marginal plant in these circumstances, despite magnified trip risks and the possibility that NGET may rely on self-despatch up to capacity rather than take explicit expensive offers. It seems unlikely that very low/negative prices would become marginal in this circumstance of relative scarcity.</p> <p>A single cashout price with a reduced PAR makes trading at negative prices on within-day (and hence day-ahead) markets more likely in times of system oversupply. We understand that this may have impacts on the settlement of the proposed "intermittent" CfD arrangements.</p>
Green Frog Power	Yes	<p>Under P316, the CfDs parties will need to work around the new cash-out price. A single price should aid in efficiency however. But importantly, in terms of the 'arrangements' embedded within regulation, we do not believe that P316 will have any impact at all. In the unlikely event that there are unforeseen outcomes relating to PPA arrangements, CfD recipients have access to the Offtaker of Last Resort option.</p> <p>For the Capacity Market there will, however, be an impact: prices tendered in for the plant that the market most requires will be reduced.</p>
Co-Operative Energy	Yes	It seems likely to us that the potentially higher cash-out prices resulting from PAR reduction will affect both the Capacity Mechanism and Contract for Difference arrangements. For the Capacity Mechanism it potentially makes it more likely that plant will need to be dispatched in tight network periods. With regards to Contract for Difference



Respondent	Response	Rationale
		arrangements, we believe that higher cash-out prices will be factored into (and thus raise) market prices, potentially making it more likely that generators with CfD contracts will need to make payments to the market during certain periods.

## Question 9: What impacts do you believe P316 will have on the BSC credit arrangements?

### Responses

Respondent	Rationale
ScottishPower	We believe that P316 may result in Parties deciding to post additional credit with ELEXON to cover potentially increased imbalance cashflows arising from more extreme imbalance prices. Due to the short time period during which Parties can correct a credit breach and the reputational risk associated with a breach of the credit arrangements, Parties may be inclined to post additional credit to avoid this risk. To some extent this risk may be mitigated by other Modifications under consideration e.g.P307 although these Modifications are not contingent upon each other.
TMA Data Management Ltd	P316 may have an adverse effect on the level of credit cover that Parties must have in place as the price of the most expensive 1MWH actions will be included in the imbalance price calculation rather than the average of the most expensive 500MWH as it is done currently. That being the case, it would impact Small Suppliers more keenly. P316 attempts to make imbalance prices more reflective of the actual cost of the imbalance actions taken by the System Operator; in doing so, it demands more efficiency from all parties, which should be supported. A natural consequence might be a higher level of credit cover in monetary terms. We take note of current modifications (P307, P308 and P310) still under review to make the credit cover and credit default processes easier and could mitigate some of the difficulties that P316 could introduce.
GDF SUEZ UK-Turkey	Credit requirements will increase due to the potential for higher cashout prices.
Drax Power Limited	We consider it will increase the required credit that needs to be posted. This appears to be the likely result of creating more spikey and volatile cash-out prices. However, we have not been able to quantify the impact.
RWE Supply and Trading GmbH	Credit cover may need to adjust to reflect the implementation of P316 but no change is required to the credit arrangements
SmartestEnergy	There will inevitably be some impact if imbalance costs increase. However, we do not believe this will be significant. For one thing the industry is massively over-collateralised anyway and the effect will not be so great.
Flow Energy Ltd	Impacts on credit arrangements will be minimal, however smaller suppliers may find that they need additional cover- however the nature of the arrangements will not change.
InterGen UK Ltd.	There may be a modest change in the amount of credit cover we are required to post, although this is unknown at present and entirely dependent on the level of PAR and the capacity margins across the

Respondent	Rationale
	winter.
DONG Energy	DONG Energy believes that due to higher imbalance prices there will be higher credit cover requirements.
Good Energy	<p>The historic analysis undertaken by Elexon shows that the introduction of single cash out prices reduces imbalance cash flows for all party types but that this benefit is consistently eroded as PAR is reduced. However, the historic analysis has been undertaken during a period of relatively benign market conditions and P316 will doubtless lead to behavioural change.</p> <p>Lower average imbalance charges would reduce average indebtedness under the BSC credit arrangements. However, the increased volatility of imbalance prices will cause sudden, more rapid, changes in indebtedness and for us to manage this within the BSC credit arrangements may lead to an increase in the credit cover lodged and/or require us to keep further cash in reserve to be able to respond to the more challenging situation.</p>
VPI Immingham	Higher balancing costs could have an impact on the amount of credit that parties have to post. However, having looked at our credit position and potential changes, we do not believe that this would be a material cost. We would not expect huge changes to our credit lines and the corresponding cost of these could be expected to be negligible.
Centrica	There is likely to be an increase in the credit arrangements depending on the level of PAR that is implemented.
RenewableUK	No opinion
Energy24 Limited	Energy24 believes that anything leading to more extreme prices will hurt small players in particular, by making a greater requirement for increased collateral likely. This would increase the costs of operation and thus there would be a likelihood of higher end user costs as well as the potential to reduce competition.
National Grid	National Grid's credit arrangements will not be impacted by P316. However, we are aware that there is potential for the Credit arrangements of some parties to be impacted, though it is difficult to comment on the extent of these impacts for other organisations.
Vattenfall	Vattenfall believes that it is likely that higher imbalance cost will lead to a requirement for higher credit cover.
Eggborough Power	Both P316 and P305 could incentivise parties to lodge more credit because they increase the risk that being out of balance is more expensive than it currently is (assuming Ofgem's outcomes are met).
Haven Power Limited	We consider it will increase the required credit that needs to be posted. This appears to be the likely result of creating more spikey and volatile cash-out prices. However, we have not been able to

Respondent	Rationale
	quantify the impact.
SSE plc	The increased sharpness in imbalance price arising from marginal pricing is likely to increase Parties assessment of their peak imbalance exposure and therefore the most likely impact is to increase the length of credit positions currently held, to mitigate the risk of credit default and its associated implications. Plant trip risk is particularly heightened as prices become more marginal.
First Utility Limited	Please see our answer to Q13 in our P305 response.
E.ON	We have not examined the potential credit impacts of P316 in detail but it stands to reason that an increase in cashout costs and/or volatility is likely to lead to increased credit requirements on parties.
Utilita	<p>Utilita believe that as reducing PAR to 1MWh would significantly increase both imbalance prices and the volatility of those prices while reducing predictability, this will lead to increased credit requirements in the industry. While the credit cover may not be fully utilised, the potential spikes in prices, coupled with the stringent BSC requirements would mean parties may need to include more headroom in the cover provided. This would increase costs to all parties and in our view disproportionately to smaller players.</p> <p>In addition, as suppliers we cannot predict prices or the degree of increase, just that they would be higher and more uncertain. We believe this may leads to inefficient (and costly) levels of additional credit cover being required, adding cost to the industry.</p>
EDF Energy	Most of the time, the cancelling effects of single price should outweigh the increased volatility of cashout prices, reducing the required levels of BSC credit. However, occasional spikes might result in credit events for individual participants, and there could be increased requirement in times of sustained scarcity (or surplus energy creating negative spill prices). These effects are probably minor compared with impacts on bilateral market credit of price feedback into market trading.
Green Frog Power	Parties who are worried about increasing exposure to cash-out are likely to post more credit. However as the CAP has just gone down, and forward prices are looking lower, this may outweigh the increasing exposure some parties may feel. We agree with our counter-parties that credit is a huge issue in the market, but much of the problem sits with the credit required by the larger players from their counter-parties.
Co-Operative Energy	We believe that balancing credit requirements for market participants will increase as cash-out prices increase. This will have a larger cash flow impact on smaller participants who are less able to easily accommodate this increase.

## Question 10: Do you have any further comments on P316?

### Summary

Yes	No
11	14

### Responses

Respondent	Response	Rationale
ScottishPower	No	n/a
TMA Data Management Ltd	Yes	We support P316 and would like to see P305 changes not included in P316 raised as individual Modifications to ensure that all aspects of the changes proposed by P305 are adequately reviewed and commented without delaying the changes of P316.
GDF SUEZ UK-Turkey	No	n/a
Drax Power Limited	Yes	<p>With regards to the proposed single cash-out price, we have some concerns that this may lead to reductions in wholesale market liquidity particularly in extreme tight periods. This is because a single price does not create as strong a signal to trade relative to a dual cash-out price.</p> <p>Analysis to help determine the likely impact on wholesale market liquidity would be useful to enable better evaluation of P316. A better understanding of the distributional impacts of implementing a single price will be particularly welcome.</p> <p>Generally, the Workgroup has been hindered in its deliberations by the lack of available data with which to assess the likely impact of the various P316/P305 solutions. The Workgroup will need to consider in detail the impacts suggested by Elexon's historic analysis to allow a thorough evaluation of the potential P316 options.</p>
RWE Supply and Trading GmbH	No	n/a
SmartestEnergy	No	n/a
Flow Energy Ltd	No	n/a
InterGen UK Ltd.	No	n/a
DONG Energy	Yes	Further to changes currently under discussion, DONG Energy would like to highlight that a shorter

Respondent	Response	Rationale
		gate closure time is expected to have positive impacts on forecast errors for generation from variable fuel sources as well as demand and therefore decrease imbalances. DONG Energy believes that this aspect should also be considered when creating a solution that better facilitates the applicable BSC objectives.
Good Energy	Yes	We agree that the related Modification P305 should be considered in determining the Proposed Modification and any Alternative Modification.
VPI Immingham	Yes	We wish to see the cash out reforms implemented sooner rather than later. With a change expected for Winter 14/15, which in the end was rejected by the Authority, implementing a solution for Winter 15/16 is imperative. As a generator, we would prefer to see part of the reforms being implemented, i.e. P316, rather than waiting for the whole package to be ready under P305.
Centrica	No	n/a
RenewableUK	No	n/a
Energy24 Limited	No	n/a
National Grid	Yes	For the avoidance of doubt, whilst we support P316 as better facilitating the BSC objectives against the current baseline, we would favour a modification that seeks to implement the full EBSCR policies, i.e. P305 or a P305 alternate (subject to its composition) to P316.
Vattenfall	Yes	Vattenfall believes that this is too rapid a move to PAR1. Furthermore, Vattenfall believes that it is possible that a move to PAR1 might not be necessary in order to meet the requirements of increasing market efficiency, and lessening requirements for balancing actions, by creating a more marginal cost of balancing. Vattenfall also believes that further analysis needs to be undertaken to understand the impact on intermittent plant, small generators and competition, and interaction with EMR to understand the balance between the benefits of a reduction in PAR and the negative consequences this might bring. This might lead ultimately to settle on a higher PAR value as being a desirable mid-point.

Respondent	Response	Rationale
Eggborough Power	No	n/a
Haven Power Limited	Yes	<p>With regards to the proposed single cash-out price, we have some concerns that this may lead to reductions in wholesale market liquidity particularly in extreme tight periods. This is because a single price does not create as strong a signal to trade relative to a dual cash-out price.</p> <p>Generally, the Workgroup has been hindered in its deliberations by the lack of available data with which to assess the likely impact of the various P316 solutions. The Workgroup will need to consider in detail the impacts suggested by Elexon's historic analysis to allow a thorough evaluation of the potential P316 options.</p> <p>We are also concerned with the groupings used in the analysis from Elexon. In Elexon's analysis our party has been labelled as an 'Independent Thermal' instead of 'Independent Supplier'. It would also be useful to divide the costs calculated by Elexon for each individual party by their total IO14 volumes.</p>
SSE plc	No	n/a
First Utility Limited	Yes	Please see our answer to Q16 in our P305 response.
E.ON	No	n/a
Utilita	No	n/a
EDF Energy	Yes	<p>We have some concerns that the lack of a bid-offer spread in cashout prices in a single cashout price regime could reduce liquidity on the prompt market. By definition, one leg of every trade executed will have been done at a negative mark to cashout (including those executed at the eventual cashout price, once one takes exchange fees into account). Any wholesale trade will therefore have an element of lost opportunity in its price stack, compared with trade relative to a dual-price cashout.</p> <p>Assuming that liquidity still exists in the prompt, the removal of the market-based reverse price means that executed trades would not directly affect the future cashout price. When changes occur to the supply or demand stacks, prices would move instantly to the new expected value of cashout. This could have the effect of increasing volatility, and lead to wider bid-offer spreads as delivery</p>

Respondent	Response	Rationale
		<p>approaches.</p> <p>With a single imbalance price, it is easier to construct conventional bilateral contracts for difference using the imbalance price as a reference, rather than trade physically. There is a possibility that participants may leave a higher proportion of balancing to the System Operator, and settle more volume between themselves bilaterally non-physically. If the System Operator is able to balance the system collectively more efficiently than participants individually, this could be an efficient outcome.</p> <p>Single price could increase opportunities for self-balancing after gate closure, either by consumers and other users of the system who are not captured by the Grid Code, or by industry participants in contravention of the Grid Code. We expect NGET to monitor such behaviour and manage it appropriately if it is or becomes a material issue.</p>
Green Frog Power	Yes	<p>As a small generating company keen to 'break into' the wholesale market, we see the progression toward marginal pricing as a key element of increasing the fairness and transparency of the playing field. Analysis by Ofgem, DECC, National Grid and other parties over the past few years all suggest that there is a requirement for flexible peaking plant to meet the changing needs of the GB electricity system (i.e., intermittency).</p> <p>And yet price signals do not reflect this requirement.</p> <p>And the reason that price signals do not reflect this requirement is not because the market knows better than the analysts (which it does), but because the price signals are artificially muted by design. This modification (P316) provides an opportunity to change that. And we fully endorse it as proposed.</p>
Co-Operative Energy	No	n/a



## Appendix 1: Energy UK Response

Energy UK response to P305 and P316 Assessment Procedure Consultations; key points:

- Energy UK supports the reforms to cashout
- Support the principle of moving to a single, more marginal cash out price for Winter 2015/15, regardless of the other components
- Concerns regarding the LOLP and Demand Control function and wish to see a robust solution implemented

Efficient balancing is a fundamental feature of a functioning electricity market and therefore Energy UK supports reform of the existing cashout arrangements. The need for the right incentives to balance is particularly acute with the tightening capacity margins. At the same time, the energy sector is in a period of significant change with EMR, European integration and other regulatory changes. The various policy and regulatory developments are interlinked and therefore adequate foresight and certainty about forthcoming changes is important to enable investment decisions and system changes to be made.

In this context, Energy UK members, drawn from all types of market participant, support the principles of P316, to move to a single and more marginal cashout price in Winter 2015. There is, however, a diversity of views on specific PAR values and we believe that these must be fully assessed by the Working Group. P316, or an alternative, would also need to be aligned with the single, more marginal cashout elements of P305.

Our members have concerns about the progress of P305 given the lack of confidence in the robustness of the Loss of Load Probability methodology as it stands and given the amount of work that is still required. The proposals on demand control volume allocations and how they feed into cashout prices also require further work. It is essential that a robust solution that is fit for purpose is implemented and therefore we believe that considerable further work is required and that a decision should not be rushed into. In addition, implementation on these parts of the package will require significant lead time because of the potential volatility impact which industry participants will need to understand and simulate in order that risk can be managed.

Energy UK therefore proposes that the LOLP calculation and demand control volume allocations becomes longer term goals and considered separately from the rest of the cashout package. We believe this to be a pragmatic and sensible approach which will ensure that a major part of Ofgem's SCR objectives are achieved whilst also providing certainty to industry with a sufficient lead time.

As raised by our members in their previous consultation responses, balancing behaviour change resulting from sharpened cashout prices will only be possible if parties have the ability to mitigate the risk. Market participants will therefore need to be able to access and trade the products to enable them to manage the risks associated with more marginal cashout prices. Implementation of single, more marginal cashout by November 2015 should provide a sufficient lead time for those products to be developed provided that a decision is made by the Authority in April 2015. A minimum of six months is required as an implementation lead time, particularly for suppliers.

I hope this letter has been helpful in setting out the areas of agreement across the industry and will complement the more detailed individual responses received. This letter will be copied to Ofgem so they are also aware of our position.