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Dear Andreas,

**ELECTRICITY BALANCING SIGNIFICANT CODE REVIEW –
DRAFT POLICY DECISION**

Thank you for the opportunity to respond to the above consultation. ScottishPower agrees that efficient balancing arrangements are a vital part of an efficiently functioning electricity market and welcomes the Significant Code Review's focus on cash-out prices.

It is essential that clarity on cash-out prices is provided before parties participate in the first Capacity Mechanism auction process in 2014 otherwise imbalance and non-delivery risk may not be efficiently priced into the auction. Similar clarity will also be needed for companies thinking of entering into CfDs, so that they can evaluate the imbalance risk.

It must also be recognised that the proposed reforms will only achieve their desired result if suppliers are able to pass any resulting increase in wholesale prices through to end users. If there is a prospect that retail price controls will be introduced, this would invalidate much of the analysis on which Ofgem's consultation is based.

Our answers to the consultation questions are in Annex 1 attached. In summary, our views on the specific policy options are as follows:

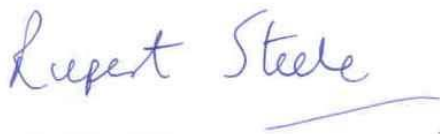
- **Sharper cash-out:** We agree that making cash-out prices more marginal may provide some of the "missing money" and could complement the EMR Capacity Market, particularly with regard to flexible generation and efficient use of interconnector capacity. However, we believe that sharper cashout should only be introduced if it is accompanied (as Ofgem plans) by a move to a single cashout price – otherwise there is a significant risk of detriment to intermittent generation. We would also encourage Ofgem to adopt a phased approach to this option, starting with a move to PAR50 and then reappraising whether a move to fully marginal pricing (PAR1) is justified. This will minimise the transitional cost and risk to participants of adjusting to the more volatile market conditions and give them more time to improve their forecasting and balancing performance.

- **Pricing disconnection and voltage control into cashout:** We broadly support including the cost of emergency balancing actions (voltage control and disconnections) into cash-out prices. We would however question the cost-effectiveness of compensating consumers for disconnection. This would require a robust and rigorous method of calculating the volume of energy not delivered as a result of the disconnection event and of allocating this to individual suppliers, some of whom may have been in balance or even supporting the system at the time. The benefit to consumers of payments for involuntary disconnection (£5/hr rising to £10/hr) is likely to be modest and it is not clear that it would justify the administrative burden involved in processing such payments.
- **Improving the way reserve is costed:** We accept that the current process of pricing in the utilisation of STOR into the imbalance price (Buy Price Adjuster) could be improved but we believe that the proposal for a Reserve Scarcity Pricing function requires further development and analysis. There is currently insufficient detail provided on the methodology and frequency of calculation for industry to fully assess the impact of this proposal. As with pricing in VOLL, the risks to market participants from introducing a Reserve Scarcity Pricing methodology for pricing STOR utilisation may outweigh the incremental benefits.
- **Single cash out price:** We support the proposed move to a single cash-out price, which we believe will lead to more efficient balancing by the parties (since payments will be more reflective of marginal costs). The results of the modelling commissioned by Ofgem suggest that this will yield by far the greatest benefit of the four options.

Finally, we believe there is a strong case to move from pay-as-bid to pay-as-clear, for energy balancing actions, as part of these reforms. This would have a number of benefits, including reducing the incentive on generators to spill power, improving the incentive to submit cost-reflective offer prices leading to more efficient dispatch decisions, and better addressing the 'missing money' problem. We would encourage Ofgem to bring forward consideration of this option within the FTA project and if possible include it within the final policy package.

Should you wish to discuss any of these points further then please do not hesitate to contact me.

Yours sincerely,

A handwritten signature in blue ink that reads "Rupert Steele". The signature is written in a cursive style and is positioned above a horizontal line that serves as a separator between the signature and the typed name below.

Rupert Steele
Director of Regulation

ELECTRICITY BALANCING SIGNIFICANT CODE REVIEW – DRAFT POLICY DECISION
SCOTTISHPOWER CONSULTATION RESPONSE

Questions related to the Draft Policy Decision

Question 1: Do you agree with our proposal to make cash-out prices more marginal?

We agree that making cash-out prices more marginal may provide some of the “missing money” required to incentivise investment in generation capacity. However we see this as complementing rather than substituting for the proposed Capacity Market (CM). Investors will require the certainty of revenue provided by the CM in order to commit their funds. The main benefit of sharper cash out prices may be in incentivising flexible generation capacity.

A move to more marginal cash-out prices would also appear to be in line with the recommendations of the draft Electricity Balancing Network Code currently being drafted by ENTSO-E.

We therefore agree with Ofgem’s proposals to make cash-out prices more marginal, subject to two caveats. First, any move to more marginal cash out prices must be accompanied by a move to a single cash out price (as Ofgem is proposing) in order to mitigate the adverse impact on intermittent generation. Without such a link, the risk of greater adverse cashflows due to imbalance cash-out may prove a disincentive to invest in intermittent generation technologies, thus making the achievement of the government’s renewable objectives less certain or more expensive for consumers.

Second, we think it would be more prudent to move initially from PAR500 to PAR50, and only then consider whether a further move to PAR1 was warranted. We note Ofgem’s arguments that the previously identified delivery risks (enhanced risks of system pollution, susceptibility to flagging and tagging errors and susceptibility to exercise of market power) may not be material. However, we believe that there are additional transitional risks in terms of market participants’ ability to adapt to sharply increased price volatility that would result from PAR1. (Cash-out and spot market prices are highly correlated and we would expect to see short-term market prices become more volatile and reach higher extremes than at present). A phased transition would enable markets to adjust in a more orderly manner and reduce the costs and risks of making the transition.

Such a phased approach would also be consistent with the cost benefit analysis included in the consultation document – Packages 4 & 5 show very similar results. Therefore, moving first to the PAR50 would facilitate transition and might well achieve the same level of net benefits as the PAR1 option.

Question 2: Do you agree with our rationale for going to PAR1 rather than PAR50? Are you concerned with potential flagging errors, and would you welcome introduction of a process to address them ex-post?

As noted above, we question whether it is necessary to move to a fully marginal price (PAR1) as the first stage in this process. Rather, it may be preferable to allow the market time to adapt to the more volatile and extreme cash-out prices by moving to a PAR50 methodology initially before reviewing the impact on market behaviour and considering a further move to PAR1.

Yes, we are concerned that flagging errors could result in erroneous indicative cash-out prices which could lead to economically inefficient trading decisions being taken. While not correcting such errors ex-post may remove the risk of having traded on erroneous information, we still believe that there should be a process to address such errors. Such a process should be designed to detect errors, produce updated cash-out prices and inform market participants at the earliest possible time post gate-closure.

Question 3: Do you agree with our proposals for pricing of voltage reduction and disconnections, including the staggered approach?

We believe it may be appropriate to price involuntary demand disconnections into the cash-out price but it will be necessary to consider carefully the Value of Lost Load (VOLL) proposed. There is a trade-off between customers' desire for secure supplies and their wish for cheaper energy.

It is essential that a rigorous methodology is developed for determining the volume of energy not delivered as a result of demand disconnection or voltage reduction to enable suppliers' imbalance settlement volumes to be accurately determined. This is particularly important in the context of more extreme cash-out prices which could reach £3,000 to £6,000/MWh. If the task of determining the volume of undelivered energy is to fall to the DNOs, it is vital that they are incentivised to do so with sufficient accuracy and transparency.

If imbalance prices are to be allowed to rise to the level of VOLL, it is important that there are mechanisms in place to signal to parties when the system is under pressure and the probability of a demand disconnection event is approaching. This would allow parties as much opportunity as possible to seek to balance their energy positions efficiently through the actions available pre gate-closure.

Question 4: Do you agree with our assessment of the interactions with the CM and its impact on setting prices for Demand Control actions?

The interactions of the cash-out proposals with the CM are complex and need to be fully understood before changes are made to avoid any unintended consequences or perverse incentives.

The introduction of a CM will provide a long-term incentive on market participants to deliver an improved capacity margin. This should improve the ability of the system operator to balance the market at times of system stress and reduce the probability of involuntary disconnection.

Ofgem argues (paragraph 4.22 and footnote 27) that in view of the investment signal already provided by the CM, it is appropriate to price Demand Control actions at a level below the 'true' VOLL estimated in the VOLL study. We agree that it is appropriate to price Demand Control actions well below 'true' VOLL, but as noted in response to Question 3, we think that care is needed in selecting the value of VOLL given the trade-off between customers' desire for secure supplies and their wish for cheaper energy.

With provision of a long term investment signal through the CM, the role of cash-out prices should be to incentivise improved short term forecasting and balancing by market participants. Sharper cash-out prices may also complement the CM in providing stronger investment signals for flexible generation capacity and incentives for more efficient utilisation of interconnector capacity.

Question 5: Do you agree that payments of £5/hr of outage for the provision of involuntary DSR services to the SO should be made to non-half hourly metered (NHH) customers, and for £10/hr for NHH business customers?

Compensating customers for loss of supply would appear to be the corollary of applying a value to non-delivered energy in the cash-out process. However, providing such compensation is likely to be administratively burdensome for suppliers. If compensation payments are to be made within a reasonable time of a demand reduction event, it will be necessary to undertake thorough development and testing of payment processes in advance. We are not convinced that it will be proportionate to incur such costs in preparation for what is hopefully an unlikely and infrequent occurrence.

The burden of making compensation payments may also fall disproportionately upon suppliers who have a higher proportion of customers in an area subject to demand reduction but whose overall energy position was in balance or supporting the system.

Finally, while the figures of £5/hr and £10/hr are derived from the proposed pricing of Demand Control measures, it is not clear how favourably such a compensation figure would be viewed by customers subject to the inconvenience of a loss of supply.

Question 6: Do you agree with the introduction of the Reserve Scarcity pricing function and its high-level design? Explain your answer.

We accept that the current process of pricing in the utilisation of STOR into the imbalance price (Buy Price Adjuster) could be improved, but we believe that the proposal for a Reserve Scarcity Pricing (RSP) function requires further development and analysis.

While the move to an RSP function would help price scarcity into the utilisation of reserve in cash-out prices, we believe there is currently insufficient detail provided on the derivation methodology and frequency of calculation for industry to fully assess the impact of this proposal. In particular, the RSP curve and the current margin available to the system operator would require to be made available in near real time to all market participants to enable them to make efficient economic decisions on how to balance their positions.

We believe that considerable further work is required to develop this proposal to a stage where its impact can be fully assessed and that this should form part of a future development process.

Question 7: Do you agree with our rationale for a move to a single price, and in particular that it could make the system more efficient and help reduce balancing costs? Please explain your answer.

Yes, we support the move to a single cash-out price and agree with Ofgem's rationale. By removing the spread between the current dual cash-out prices (SBP and SSP) it will reduce the cost of balancing to market participants.

A single cash-out price is also more efficient as it sends the correct signal to parties whose imbalance is in the opposite direction to the overall market length. It values their contribution towards balancing the system at the price of the marginal action taken by the system operator.

However, we also agree that the move to a single imbalance price may have some impact on market liquidity as parties may decide to spill energy rather than trade it in the power market ahead of gate closure.

Question 8: Do you have any other comments on this consultation, including on the considerations where we did not propose any changes?

ScottishPower does not have any further comments on this consultation.

Questions related to the Impact Assessment

Question 9: Do you have any comments regarding any of the three approaches we have taken to assess the impacts of cash-out reform packages?

Approach to modelling

The Historical Analysis is useful in that it provides a “what if” view of how imbalance prices would have turned out had the changes been implemented in the past. While based upon actual out-turn data, such analysis does not take into account the behavioural changes that the proposed changes are designed to introduce. That is, it does not take account of how parties’ forecasting and balancing actions would change once the proposals are introduced nor parties’ ability to invest longer term in either better forecasting systems or more flexible generation.

The Historical Analysis gives a reasonable indication of the possible range and volatility of cash-out prices assuming all other factors remained constant. This allows parties to assess whether the potential risks to their businesses would increase in moving to such a methodology. We note that a highly simplified approach to modelling the Reserve Scarcity Pricing function was adopted in this analysis.

We agree that the Forward Modelling is a useful complement to the Historical Analysis.

Output of modelling

Figure 2 indicates that average cash-out prices (SBP) will increase under Ofgem’s proposals with the majority of the increase arising from the move from PAR500 to PAR50 and a smaller increase from PAR50 to PAR1. We question whether this indicates that most of the benefit indicated in the analysis could be achieved with a move to PAR50 rather than PAR1.

Similarly, Table 5 indicates that Package 5 leads to some of the most volatile cash-out prices which are likely to increase balancing costs for participants less able to balance such as intermittent generation.

Figure 3 indicates that, other than Independent Suppliers who see a modest net reduction, most market participants see little change in balancing costs between the “Do nothing” and package 5 scenarios. Given the additional risk of volatile prices to be managed by all parties, we question whether the disruption to the market of package 5 is fully justified.

Finally, Table 6 indicates that in order to achieve an overall net benefit, more marginal pricing must be accompanied by the move to a single cash-out price (Packages 1 and 3 deliver net disbenefits with dual cash-out prices and more marginal pricing). “Quite marginal” cash-out pricing (PAR50) delivers almost the same overall benefits as fully marginal pricing (£12m vs £13m in 2020 with a CM). It is difficult to determine the impact of pricing

involuntary disconnection at VOLL on the results although a comparison of Packages 2 (no VOLL) and 5 (VOLL) indicates only a modest increase in benefit of £1m in 2020 and a disbenefit of £2m in 2030.

We accept that there are significant limitations in the ability of the modelling to quantify the potential benefits, and that it is therefore appropriate to consider the results of the quantitative modelling alongside a more qualitative assessment.

Question 10: Do you agree with the analysis of the impacts contained in this IA? Do you agree that the analysis supports our preferred package of cash-out reform? Please explain your answer.

Based upon our response to Question 9 it would appear that much of the benefit from the proposed package of reforms could be achieved by a less disruptive incremental set of reforms which introduced a more marginal cash-out price (PAR50) accompanied by a single cash-out price, and that the benefits of charging for involuntary demand disconnection and using RSP are marginal at best.

At a time of great uncertainty for the electricity market, it may be preferable to make incremental changes which would still deliver much of the modelled benefits without introducing considerable additional risk and volatility for modest incremental benefit.

Question 11: Do you agree with the key risks identified and the analysis of the risks? Are there any further risks not considered which could impact on the achievement of the policy objectives? Please explain your answer.

We agree that the principal risks have been identified in the cost benefit analysis.

Question 12: What if any further analysis should we have undertaken or presented in this document? Do you have any additional analysis or evidence you would like to contribute to support the development of the EBSCR towards its Final Policy Decision?

We would like to see further analysis undertaken on the impact of different PAR levels which could be used in the staged introduction of more marginal prices. In addition to the PAR 50 modelled the impacts of PAR 25 and PAR10 could be considered.

ScottishPower
22 October 2013