

Andreas Flamm  
Wholesale Markets  
Ofgem,  
9 Millbank  
London  
SW1P 3GE  
0207 901 7000  
[GB.Markets@ofgem.gov.uk](mailto:GB.Markets@ofgem.gov.uk)

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## Electricity Balancing Significant Code Review (SCR) – Initial Consultation

Dear Andreas,

### Introduction

SmartestEnergy welcomes the opportunity to respond to Ofgem's Electricity Balancing Significant Code Review (SCR) – Initial Consultation. As an active trader in the wholesale market and a commercial aggregator of renewable generation, we are aware that this SCR could lead to significant impacts on the industry.

### General views

In our response to the Electricity Cash-out Paper in January we stated that whilst we were unconvinced of the need for major change, we were not opposed to further investigation of potential changes or to consideration of the interactions with Electricity Market Reform (EMR), and, more importantly, market harmonisation with Europe. We are therefore pleased that the context is noted in the consultation document and Ofgem present what seems a relatively measured and sensible approach. In other words, having reviewed some fairly major change, Ofgem now appear to be in the process of focusing on more targeted developments.

However, such further work should not presuppose that change is necessary and the case for change would need to be proved at some point. In general, we are satisfied with the current arrangements. At one of the stakeholder events it was highlighted that this consultation could help form a clearer view of what is considered as ideal market arrangements and used in discussions to influence European harmonisation. Therefore, at this stage arguments for changes to the GB system must rely on reasons other than following the example of other countries for harmonisation purposes, unless their experience actually demonstrates a more efficient system.

Our view is that the *best combination of arrangements* would be to move towards single trading accounts by using the more efficient method of *P282* (Allow MVRNs from Production to Consumption or Vice Versa), assist balancing by *amending gate closure to be closer to real time*, and *maintain dual-cash out* as it incentivises parties to balance. Situating the potential combination of considerations in context with other changes to the market, we believe a more marginal main cash-out price would only be appropriate if a capacity market is not developed.

### Ofgem's specific questions

For your convenience we answer Ofgem's specific questions below in the order in which they are presented in the consultation document.

**Question 1:** Do you agree with the approach and the proposed stakeholder engagement throughout the SCR?

Yes.

**Question 2:** Do you have any evidence that you would like to submit that may be relevant for any aspect set out in this document?

No.

**Question 3:** What is your view on the interactions between our considerations and aspects of the EU target model?

It is important to be mindful of EMR and TM and take a measured approach at this stage. Ofgem appear not to be rushing into change but are reviewing options in a complex and changing world. We agree with this approach. It would be worthwhile to investigate market splitting now as one of the primary concerns as this is a fundamental issue with regards to European arrangements. Also, splitting the GB market could help manage internal constraints more efficiently and therefore assist the System Operator (SO) in balancing the system.

**Question 4:** Do you feel there are any further alternatives to the reform options presented under our primary considerations?

Rather than removing renewable generators from the market (consideration 8) a more attractive alternative would be to assist their participation within current arrangements by moving gate closure closer to real time (which is listed as a secondary consideration). This would also assist balancing for other parties and hence intermittent renewable energy would not receive special treatment (which is not permitted under European arrangements/law).

**Question 5:** What other benefits or drawbacks can you identify for each of our primary considerations? Please provide any evidence you may have to support your position.

**Consideration 1:** We will consider whether cash-out prices should be "more marginal". Current cash-out prices are calculated by averaging a number of most expensive trades made by the SO to balance demand and supply. We could base the calculation on a smaller volume of trades.

If a capacity market goes ahead then we believe that it addresses the issue of 'missing money' and incentivises people to invest in new capacity. To have both a capacity market and more marginal pricing could be seen to be double rewarding the capacity (as they would receive increased RCRC payments). In the absence of a capacity market then the dual cash-out system with a more marginal main price (using PAR) would be appropriate. Potential benefits of a more marginal cash-out price could be to increase the incentive for people to trade more before gate closure, and to increase the incentive to improve

forecasting. However, a consideration to be aware of is that the price should avoid being excessively marginal as this could have an unintended consequence- namely of creating a barrier to new entrants who perceive imbalance costs as too high a risk.

**Consideration 2:** Currently parties who produce or buy more than they need to receive less than the charge for those who produce or buy less than needed. The payment and the charge could be made the same.

We are against single cash-out for three main reasons: electricity cannot be compared to other commodities; single cash-out would not incentivise parties to balance, but rather to go long, or perhaps develop gaming behaviour; and hybrid versions show bias towards certain parties.

We believe there is a danger of assuming that the current arrangements are not appropriate because they are different from the arrangements in other commodities. The Electricity Cash-Out Issues Paper stated the following: “Dual cash-out creates two different prices for the same product in the same period. Standard economic theory suggests that this could lead to sub-economic outcomes.” It must not be forgotten that electricity is not like other commodities in that it cannot be stored efficiently on a large scale. It is also self-evident in the electricity market that it is cheaper to turn generation down/off than it is to turn it on/up. In other words, you could see “long imbalance” and “short imbalance” as two different products/commodities and the textbook criticisms of price discrimination do not apply. It is the nature of start-up costs that make the level of spreads unique. (It should also be remembered that large spreads discourage the spilling of power.) It may be true that other electricity markets have single cash-out but these will be “sub-economic” in that they will involve a certain degree of cross-subsidy/socialisation of balancing responsibility. We are not totally opposed to this as a concept but it needs to be understood. In essence, electricity is unique and any arrangement could be in some way argued as sub-optimal by someone.

We are of the view that single cash-out would incentivise parties even more to go long, (thus providing more inefficient free reserve to National Grid). This is because at the moment a persistently long player will receive either SSP or MIDP (depending on the direction of the system) but with single cash-out that same long player would receive something akin to SSP when the system is long and would *receive* levels at or around the current SBP when the system is short.

The document states: “If we felt that balancing performance would be adversely impacted by having a single cash-out price, we could consider a single cash-out price only for those settlement periods where balancing volumes remain below a certain level. When volumes in the BM exceeded a certain level, marginal dual cash-out prices, or some sort of performance incentive, could be triggered, similar to the approach taken in the Netherlands.” Firstly, arrangements with “certain levels” should be avoided as they are arbitrary and not consistent with neat and coherent arrangements. Secondly, the spread would be low or non-existent in such non-critical periods anyway. The following paragraph in the consultation considers a single cash-out price when the system is short and a dual cash-out price when the system is long. Assuming a reverse price, this situation obviously benefits generators and penalises consumers which seems unfair.

**Consideration 3:** We will consider allowing parties with both generation and supply businesses to net their opposite balances from the two trading accounts. Currently they must balance both their generation and supply sides separately.

In the current arrangements it is possible for parties to be penalised when they are net balanced across their separate accounts even though this is not detrimental to the system. Also, maintaining the distinction artificially creates two separate market places and, as a result, can be a barrier to entry for new start-ups, or an obstacle to established players only utilising one account but wishing to expand. This is because currently each account has to be built up separately and does not benefit from the other already being in place with respect to imbalance.

We believe the most efficient way to progress this consideration is via P282 (Allow MVRNs from Production to Consumption or Vice Versa) as it would have minimal impact on existing processes and systems. In addition, maintaining the two accounts whilst allowing MVRNs between them could potentially aid transparency for monitoring or restriction purposes if Ofgem decide to intervene as part of the retail market review.

**Consideration 4:** Parties who submit bids and offers to help the SO balance the system are currently paid the price they have bid. We could change this so that all parties would receive the same price, the price of the most expensive bid accepted.

We see the logic in using pay-as-clear for the reasons specified in box 4. However, it is difficult to evaluate the bidding strategy of generators and we are unsure whether the benefit would occur when the system is long as it could potentially over reward generators, though we think it is likely to be suitable when the system is short at least.

Pay-as-clear may only slightly reduce the amount paid to generators, if at all and therefore we query whether the change will be justifiable.

**Consideration 5:** Currently cash-out prices do not reflect the cost of all actions taken by the SO. For example demand reductions (i.e. when consumers are disconnected) are not included in the calculation. They could be included and consumers could be paid for the disconnection.

We would need to see further details of what is being proposed here to comment. It appears that Ofgem are of the view that firm disconnections are a form of DSR and, although involuntary, are a balancing action that consumers should be paid for, ideally at their VoLL. We are of the view that this is impractical because suppliers will be long if customers have been cut off and therefore may not receive the same level of money for the electricity as part of the balancing mechanism they would have been entitled to without the demand reduction and being more in balance. It also needs to be pointed out that it is difficult for suppliers to identify who has been cut off if they do not have a smart meter as the SO is instructing disconnections through the DNO, not the supplier.

**Consideration 6:** The SO pays some generators to be prepared to generate when it thinks they could be needed in a future period. The inclusion of these costs in the cash-out price calculation could be improved.

Expanded use of STOR is a good idea. We are unconvinced that creation of a further reserve market would solve any issues.

With regards to costing, industry should not be afraid of complexity if the result is more accurate and with more and more wind coming onto the system we should move away from assuming that the future will be the same as the past. We are therefore inclined to favour option 4 (the replacement price). However, some assessment should be made of whether the differences are material.

**Consideration 7:** The SO is responsible for balancing the system. For that to happen, bilateral trading stops one hour before “real time”. We will consider introducing a new balancing energy market that allows parties to trade off their imbalances close to real time.

A Balancing Energy Market is impractical as it does not take into account issues such as plant dynamics, nor locational constraints. There also seems to be an underlying assumption that parties know what their energy imbalance is. Also, unless gate closure is altered in the BEM we do not see how this favourably differs from normal trading arrangements and it runs the risk of withdrawing liquidity from the existing markets.

However, we are in agreement that if parties could resolve the imbalances they are aware of closer to real time it would be useful in managing intermittent generation. Therefore, we would welcome the consideration of altering gate closure. Several European countries have a shorter gate closure than we do currently; we look to the example of Germany which has a higher proportion of intermittent generation on the system.

**Consideration 8:** Renewable generators tend to find it difficult to predict their output. They face uncertainty, for example, around how strongly the wind will blow. Aggregating renewable output and balancing it centrally could improve the overall balancing efficiency.

We note that Ofgem has already identified more disadvantages of intervening than advantages and apart from counting the number of points on each side, we feel that the potential advantages are far out-weighted by all the significant disadvantages.

We would, however, like to reinforce three drawbacks already noted: the effect on the market, practicality, and non-comparability with other countries. SmartestEnergy and other suppliers already act as consolidators for intermittent wind, in other words wind developers are free to contract with a range of suppliers and gain the benefits a larger portfolio brings to the issue of balancing. The document states that “centralised balancing could crowd out the market for commercial aggregators. Commercial aggregators are likely to be more innovative and flexible in the services they offer.” We agree with this statement, any form of centralisation or special arrangements would be “anti-market” and give an unfair advantage to wind generation over other forms of generation (which potentially conflicts with European legislation). The incentives to balance on all suppliers create a level playing field which should not be “tilted”. Also, we would point out that centralised aggregation is not practical. It removes the responsibility for balancing from the trading counterparty, and raises the issue of where the costs associated with poor trading decisions would lie. It would be more complicated than the current market provision as it could introduce secondary cash out between wind farms, such as in the case where one which has over contracted must pay for another’s output to cover the shortfall in generation.

Lastly, we note that the document makes reference to approaches taken by other countries, namely Belgium, Spain, France and Germany in defence of this approach. We would like to point out that these comparisons are inappropriate due to the differing arrangements and conditions as we explain below:

- “In Belgium and Spain, smaller intermittent generators can avoid certain imbalance charges as long as they operate within a defined tolerance zone of forecast output.” In GB these generators are already benefitting by being included in single trading accounts and gaining the netting effect. This is due to the cost savings they bring. It would be anti-competitive to over reward such generators though (giving them higher benefits than they bring to the system).
- Germany has recently reduced the price awarded to such generation which incentivises the use of bilateral trading. This shows they are moving away from such a model.
- France’s market is not particularly liquid and hence it is not a fair comparison as in that country it is more difficult to find a buyer in the bilateral trading arrangements than in GB.
- In GB, renewable generators receive subsidies in the form of the RO and FITs. These are justifiable and transparent. To introduce further advantages as part of the arrangements (and not around them) would reduce the transparency of the subsidy.

**Question 6:** Which of the reform options considered under each of our considerations do you believe would provide the most efficient balancing incentives and why?

**Consideration 1:** We will consider whether cash-out prices should be “more marginal” . Current cash-out prices are calculated by averaging a number of most expensive trades made by the SO to balance demand and supply. We could base the calculation on a smaller volume of trades.

If the penalty for being out of balance was greater, then it could incentivise parties to balance.

**Consideration 2:** Currently parties who produce or buy more than they need to receive less than the charge for those who produce or buy less than needed. The payment and the charge could be made the same.

There appears to be an assumption by Ofgem that the way in which the marginality has been able to be flexed over time reflects shortcomings in the arrangements. Whereas what has happened is that over time the industry has experimented with reducing the marginality so that it has got to the point that overall the cost of balancing is about right as RCRC has trended to zero. However, it is in GB’s interest to keep this ability to flex the marginality because a view may be taken in the future to use this to make up for the “missing money” in the absence of a capacity mechanism. Were this approach to be taken the rationale and commitment would need to be explicit.

If we know for certain that there will be a capacity mechanism and that it will not be undermined by future European or UK legislation, it could be argued that a single cash-out

regime would be neater because there are no surpluses or short falls which need to be accounted for by RCRC.

However, the dual cash-out system gives a greater incentive to balance and its flexibility is useful. Consequently, we evaluate the cash-out processes in descending order of efficiency as dual, hybrid and then single.

**Consideration 3:** We will consider allowing parties with both generation and supply businesses to net their opposite balances from the two trading accounts. Currently they must balance both their generation and supply sides separately.

This does not change the incentive for parties to balance.

**Consideration 4:** Parties who submit bids and offers to help the SO balance the system are currently paid the price they have bid. We could change this so that all parties would receive the same price, the price of the most expensive bid accepted.

Again, this consideration does not have the aim of incentivising parties to balance.

**Consideration 5:** Currently cash-out prices do not reflect the cost of all actions taken by the SO. For example demand reductions (i.e. when consumers are disconnected) are not included in the calculation. They could be included and consumers could be paid for the disconnection.

No specific options are presented in the document. This is probably a reflection of how impractical this will be and we are not convinced that this is an area that warrants further investigation.

**Consideration 6:** The SO pays some generators to be prepared to generate when it thinks they could be needed in a future period. The inclusion of these costs in the cash-out price calculation could be improved.

If a replacement price is implemented then it would ensure balancing costs are not dampened and hence the incentive for parties to balance should remain strong.

**Consideration 7:** The SO is responsible for balancing the system. For that to happen, bilateral trading stops one hour before "real time". We will consider introducing a new balancing energy market that allows parties to trade off their imbalances close to real time.

We do not believe that this will incentivise parties to balance, nor majorly facilitate their balancing. It would be more efficient to adjust gate closure.

**Consideration 8:** Renewable generators tend to find it difficult to predict their output. They face uncertainty, for example, around how strongly the wind will blow. Aggregating renewable output and balancing it centrally could improve the overall balancing efficiency.

This consideration arguably reduces incentives for renewable generators to balance as it removes some of their responsibility. It could also reduce incentives to invest in forecasting.

We would like to emphasise that any form of centralisation or special arrangements would be “anti-market” and give an unfair advantage to wind generation over other forms of generation on top of the subsidies it already receives. It would be detrimental to existing parties who already offer an aggregation service. We also do not see how the arrangement could be practical.

**Question 7:** Alongside this initial consultation we have published preliminary analysis of the last modification to the cash-out arrangements, P217A. Do stakeholders agree with the initial findings of this analysis?

Our perception is that P217A was an improvement to the arrangements.

**Question 8:** What additional analysis could be done as part of the SCR around Modification P217A and the flagging methodology it introduced?

Given that actions taken by the system operator could be dual purpose, i.e. could resolve an energy imbalance and a system imbalance simultaneously, it is probably not fruitful to attempt to sub-divide NGT’s actions any further.

**Question 9:** Do you agree with our rationale for considering making cash-out prices “more marginal”?

In our response so far we have been using the term “more marginal” as an equivalent for a method to increase the price paid for electricity, or reducing the price received (if a party is long), rather than referring to basing calculations not on averages (which not necessarily changes prices, e.g. in the case as pay-as-clear). We assume that this question is also referring to marginality in the former sense. We do agree that more marginal prices (i.e. greater spreads) can sharpen the incentive to balance and give a signal to investors that investment is profitable, although we believe investment decisions would be more heavily influenced by a capacity mechanism if it were to go ahead. However, as we have previously mentioned, there is a danger of over-rewarding capacity if there is a capacity mechanism in place as well as more marginal prices. More marginal prices could also create a barrier to entry (hence competition) as greater imbalance costs can pose a significant risk to companies. Therefore, the level of increase in marginality should be carefully considered.

**Question 10:** Do you agree with the circumstances we have identified in which the secondary considerations are important?

- a. **Improved provision of information** – this issue is secondary in the sense that it is of lesser importance but we do not see that it has any dependence on other decisions.
- b. **Creating a Reserve Market** – the greatest dependence this issue has is with EMR. A reserve market may look a little like a capacity market. Alternatively, it may be difficult to distinguish between a reserve market and the BM.



- c. **Amending gate closure** – it is true that this issue depends on decisions relating to a Balancing Energy Market. Though we believe this could be done instead of the proposed BEM.
- d. **Residual cashflow reallocation cashflow (RCRC)**– clearly this relates to the single/dual cash-out decision.
- e. **Reverse price** – we agree that changing the reverse price would best be done after Ofgem have considered the case for a single cash-out price.
- f. **Setting an information imbalance charge**–this issue is secondary in the sense that it is of lesser importance but we do not see that it has any dependence on other decisions

**Question 11:** Do you have any other comment on the secondary considerations presented here? Please provide any evidence you may have to support your position.

- a. **Improved provision of information** – whilst this is not a particularly significant issue, we do believe it is worth investigating further as part of the review.
- b. **Creating a Reserve Market** –we are not convinced that this is worthy of further consideration since there is already a balancing mechanism and EMR is looking at whether a capacity market is necessary.
- c. **Amending gate closure** –moving gate closure to real time is a more practical solution than the BEM.
- d. **Residual cashflow reallocation cashflow (RCRC)** –in the event that single cash-out is chosen it becomes a non-issue. However, we would urge Ofgem to consider what is the optimum RCRC level when deciding how “marginal” to make any dual arrangement.
- e. **Reverse price** –under the current dual pricing arrangements we are of the view that the reverse price mechanism works well in that it sets an appropriate price of imbalance for those parties who are “helping” the system but does not provide a reward as a similar price could have been achieved in the market (unlike in a single cash-out regime which can make parties who are out of balance “winners”).
- f. **Setting an information imbalance charge**–It may be true that there is provision in the current market rules to charge participants who deviate from their FPN. However, consideration needs to be given as to how any monies charged are recirculated/used. We are not convinced that the current levels of failure to renominate really justify any introduction of an information imbalance charge. Furthermore, this would probably only penalise renewable energy generation at a time when policy is seeking to encourage it.

Should you wish to discuss any aspect of this matter, please do not hesitate to contact me.

Yours sincerely,

Colin Prestwich  
Deputy VP Commercial – Head of Regulation



SmartestEnergy Limited.

**T:** 020 7195 1007

**M:** 07764 949374

**SmartestEnergy Ltd**  
T 020 7448 0900  
F 020 7448 0987

**Registered Office:**  
Dashwood House  
69 Old Broad Street  
London EC2M 1QS

Registered in England & Wales: No.3994598

[www.smartestenergy.com](http://www.smartestenergy.com)

