

Our Ref
Your Ref 17/06

Sonia Brown
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Date 23 February 2006

Dear Sonia,

Impact Assessment: BSC Modification proposal P194 'Revised Derivation of the main Energy Imbalance Price'.

EDF Energy is pleased to have the opportunity to respond to this Impact Assessment on BSC Modification P194. We are, however, disappointed that in forming its initial view on this modification, Ofgem has ignored the very real concerns expressed by large parts of the industry and the BSC Panel, particularly given that Ofgem accepts that the apparent merits of P194 are finely balanced when compared to the potential costs.

The evidence of this winter suggests that cashout prices, System Buy Price in particular, are able to respond to market conditions, sometimes reaching extreme prices. Ofgem needs to consider why participants are not responding to spikes in SBP and SSP at the moment and whether these factors would change with the more penal cashout prices that P194 would introduce.

It is our contention that P194 would generally cause market participants to adopt a long position in the Balancing Mechanism as a safeguard against very high levels of SBP, this in itself may have undesirable consequences for the efficient operation of the total system. In addition, a lack of market liquidity means that participants have limited scope to respond any more effectively to enhanced cashout prices post-P194 than at the moment.

We are also concerned that whilst Ofgem have acknowledged that problems still exist with the tagging process, these have been viewed as being of lesser importance than assumed changes in the behaviour of participants. At the present time NGET is forecasting vastly increased BSUoS costs due to the added difficulties of balancing the GB transmission system and in the Autumn of last year System Sell Price went negative, in part due to NGET having to accept negative Bids from Scottish generators. This suggests that System Balancing actions are still an issue and are likely to feed

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into cashout prices on an ongoing basis. The impact if they do so under P194 will be proportionately far greater than under the existing methodology.

EDF Energy is also concerned at the cursory attention Ofgem has paid to reviewing National Grid's System Operator Incentive Scheme for 2006-07. This is particularly relevant in the context of this modification because any saving by NGET in balancing costs will be reflected in their rewards under the Incentive Scheme. Should Ofgem decide to approve this modification, we trust that proper attention will be paid to the reduction in balancing costs which NGET claim will arise.

In summary, we do not believe that the benefits of P194 are likely to materialise because the market is insufficiently liquid for participants to respond in a manner different to that today. Increased cashout volatility creates further risk in a market which is already highly risk-averse and could well reduce liquidity still further. The very real and unresolved concerns about System Balancing Actions polluting cashout prices should not be underplayed. In a situation where Ofgem has doubts about the merits of a modification, it should err on the side of caution rather than implement something which carries such a significant degree of additional risk.

We have commented on these points in more detail below.

We hope that you will find these comments helpful. If you have any queries please do not hesitate to contact me on 020 7752 2524 or Jim Beynon on 020 7752 2523.

Yours sincerely



Stephen Moore
Energy Market Strategy
EDF Energy

Evidence of a defect.

During the assessment procedure for P194, National Grid failed to convince the majority of Modification Group members that a defect did actually exist. There is no requirement in either the Supply Licence or the BSC for parties to be in balance; rather that they are subject to the relevant cashout price when they are not. Nor have there been any incidents when NGET has been unable to balance the system because of parties being out of balance.

In addition, the evidence of this current winter to date suggests that cashout prices are able to respond to a scarcity of generation or increased demand under the existing baseline. Each spell of cold weather has seen cashout prices spike – in one case System Buy Price reached over £600/MWh¹. If parties are not balancing sufficiently in such circumstances then it suggests there are other reasons for this than the lack of an appropriate signal from the cashout arrangements.

Response of market participants to P194.

Much of National Grid's argument and Ofgem's analysis is predicated on the belief that sharpened cash-out prices will lead to market participants making greater efforts to balance their positions. However there are many reasons why we do not believe that this will happen in practice.

Firstly, the asymmetry between extremes of SBP and SSP would, as evidenced by the market prior to the implementation of P78, further encourage parties to go long because of the risk of being exposed to very high levels of SBP. This risk is likely to be greater under P194 than under the pricing mechanism that prevailed prior to P78 and because SSP does not go low to anything like the extent that SBP can go high, the asymmetry of the resultant risk will guide the behaviour of market participants.

Another consequence of this asymmetric and extreme risk at times of system stress is that it may cause generators to hold back some output to self-insure. Specifically at times of system stress, a generator may hold back (i.e. not forward-sell) some output on one flexible unit, or undersell a proportion of the output on several generating units with a view to providing some self-insurance against breakdown on another. This is of course most undesirable from a security of supply perspective and a most regrettable consequence of implementing P194. It is also far less efficient, both in terms of electrical efficiency and carbon dioxide emissions, for individual generators to be procuring their own reserve in this manner than for NGET to do so centrally.

Although this could, in theory at least, reduce the volume of reserve that NGET need to procure it is still the case that generator trips and system constraints would occur and NGET would need reserve to ensure security of supply in such cases. The argument that sharpened cashout signals would encourage reliability is irrelevant in such circumstances, NGET still need to procure reserve to fulfil their licence obligations.

Were a 500MW generating unit to trip with a prevailing System Buy Price of £600/MWh it would cost £150,000 in imbalance charges for a single half-hour. The incentive for generators to avoid that risk exists under the current arrangements.

The rather blithe assumption that the impact of P194 on smaller players is as likely to be positive as it is negative, although correct, rather misses the point. The issue is one of risk in absolute terms and it is something that smaller companies find it difficult to

¹ On 29 December 2005, SBP reached £601.75/MWh in Settlement Period 36.

hedge against purely for reasons of scale. The minimum trade on APX is 25MWh which makes it impossible for a supplier with daily volumes of 200MWh to fine tune its position.

It is also the case that any move towards more marginal cashout pricing would accentuate the advantages of gaming and the consequences of doing so for other parties.

Reasons for observed behaviour of market participants.

There are also a number of other reasons which explain why market participants are not responding to system shortages in the way Ofgem expects them to.

- P194 seems to be trying to address symptoms of the illiquid GB electricity market rather than core reasons for that lack of liquidity – namely the ever-reducing number of participants and the preponderance of vertical integration. Ofgem's view that more marginal cashout prices will increase liquidity is at odds with that of the European Commission which stated that such volatility is more likely to lead to further integration as market participants seek to avoid that risk.
- Availability of plant: If there is no generation available for suppliers to contract with in the run up to gate closure, then irrespective of the prevailing spot or cashout prices suppliers can not contract with it. The system stress in February 2005 was partially caused by a late cold spell when some generators were on planned outages and others had fallen over. In addition NGET's contracting for reserve, by definition, removes plant from the market.
- Demand side response: there is only a very limited amount of demand side response in the UK market, meaning that a supplier's main response to a short position has to be to try and purchase more electricity.
- Demand Forecasting errors: EDF Energy have already made strenuous efforts to improve the accuracy of our demand forecasting systems and processes to the extent that fluctuations in the temperature are likely to have a greater impact on accuracy than further system improvements. For example, a change of 1° centigrade can cause national demand to fluctuate by 1%.
- Fine-tuning of position: There are two key reasons why this might not occur as economic theory would suggest; firstly that operational staff have a multitude of functions to perform over the course of a shift – scheduling plant, gas balancing, trading – and constantly adjusting Bid and Offer prices may not be the top priority. On a broader level, this point sits at odds with Ofgem's previous assertions over the undesirability of 'sleepers' bids in the P171 and P172 decision letter; the objection then seemed to be that generators were entering Bids that bore no relation to costs, yet that is what is being encouraged in this Impact Assessment. Is it right that a generator should increase an offer price markedly in response to a NISM?
- The suggestion that generators would decide to commission new plant on the basis of more volatile cashout prices is an interesting one, but vastly oversimplifies the multitude of factors that have to be considered. Planning constraints, the availability of fuel, connection agreements and transmission access as well as the construction costs of a plant are all likely to hold far greater weight than the prevailing cashout regime. The graph Ofgem have used to show a correlation between SBP and the forward price is hardly conclusive; the underlying driver for rises in both is likely to be the wholesale gas price.

Imperfections in tagging arrangements.

Ofgem have acknowledged within this Impact Assessment that the current tagging rules are imperfect, a view with which the majority of the industry would concur. These imperfections are compounded by the fact that, since the implementation of P172, it is the System Operator who decides whether an action has been taken for System or Energy Balancing reasons. Whilst this may be better than mechanistic rules it puts NGET in a position to influence the cashout prices by qualitative judgement – more importantly, market participants have limited visibility of this decision-making process and what other options are available to NGET.

Since, BETTA it is clear that the number of System Actions has been high to cope with transmission network constraints and the need to maintain voltage levels in the north of Scotland. The former Anglo-Scottish interconnector limits the overall volume that can be exported from Scotland to England and Scottish Power, in their submission to Ofgem for bringing forward reinforcement of the former interconnector circuits, argued specifically that constraint costs would rise without this increase in capacity.

In addition National Grid's current forecast of BSUoS for 2005-06 is substantially higher than the forecast figure, in large part due to constraints on the GB System. At certain times, particularly during the months of September and October 2005, significant volumes of negatively priced bids have been accepted on conventional Scottish generation. This has driven System Sell Prices lower on a number of occasions and even negative in a few settlement periods.

For example, on 18 October the impact of constraints on System Sell Price was particularly evident with negative prices in nine settlement periods. Analysis of the bid stacks in these periods shows the degree of differential between bids accepted for energy and system purposes. For example, in settlement period 34 on 18 October 2005, SSP was -£20.53. A total of 619MWh of bids were accepted: 195MWh from predominantly coal fired units in England and Wales at a weighted average price of £27.63/MWh and 424MWh from coal fired units at Longannet and Cogenzie in Scotland at -£50.00/MWh.

This pattern of bid acceptances was typical for the nine settlement periods on that day during which SSP was negative. The fact that most of the accepted bid volume was from comparable coal generation indicates that the Scottish bid prices were significantly biased as a result of the constraint.

This is just one example of the prevalence of constraints on the GB transmission system compared to the England and Wales network. In the current cashout regime, system actions delivered by bid-offer acceptances in the Balancing Mechanism are not tagged (unless they meet the CADL criteria). Under P194 the impact of such system actions on cashout prices will be magnified. The Damhead Creek incident of May 2004 highlighted the severity of such an impact as a high negative Bid prices caused SSP to reach almost -£6,000/MWh. Although P172 would now allow NGET to treat such emergency Bid acceptances as System Actions the risk remains that they may not always do so. The evidence presented in the Impact Assessment for P194 appears to show that NGET can now accurately differentiate between System and Energy Balancing Actions,² something which they have maintained in the past to be

² Figure 9, p.47 of Impact Assessment.

unachievable. If this is indeed the case we would hope to see NGET raise a further modification to replace the CADL methodology (that estimates those actions used for system balancing) with their new discriminative methodology