

Demand Side Balancing Reserve

Energy Pool response to National Grid's Informal consultation on the development and procurement of two new balancing services

26 July 2013

Introduction

Energy Pool is an active Demand Side Response aggregator, providing flexible demand-side balancing services to the electrical system (transmission and/or distribution network operators; energy suppliers) in Great Britain, France and Belgium.

We are pleased to contribute to respond to this consultation and are keen to support National Grid in its effort to develop opportunities for the demand side to participate in providing balancing services.

DSBR 1: Do you agree with our proposed participation criteria?

We believe that participation should be restricted to demand side resources regardless of their curtailment cost. The criteria on the minimum utilisation price acceptable might indeed be difficult to audit as the curtailment cost can be influenced by the economic situation or the ability to recover enablement cost through utilisation payment.

We would question why demand side BM units would not be allowed to participate in the scheme as some of them might be better suited to provide balancing services through DSBR than other balancing services.

We support National Grid's proposal to consider the use of the service providers' half hourly metered data so as not to restrict the participation in this mechanism.

Finally, we strongly believe it is necessary to authorise the participation of third parties such as suppliers or aggregators as they can increase the number of MW tendered and provide a more reliable services with capacities that would otherwise not be able to deliver the service 100% of the time.

DSBR 2: Do you agree with our proposed product definition?

Overall we agree with the definition of the product as its aim is to procure flexibility at particular times of the year which are well identified.

However, we consider that capacities that can deliver energy for more than two hours should be able to provide this service and could for example get a premium in their set-up payment capturing the extra value for the grid or be preferred in the tender merit order.

Finally, while we understand there is a good probability that stress events will continue to occur between November and February, we believe this assumption should be reviewed each year the DSBR is contracted so as to ensure it responds to National Grid's actual needs.

DSBR3: Do you agree with our proposed payment arrangements? Do you have any views on the proposed level of set-up payment?

Our understanding is that National Grid is seeking new DSR capacities with the opening of the DSBR product. Therefore some enablement will be required to develop those capacities.

While heavy investment might not be needed, enabling DSR resources still has a cost including for instance control enablement and operational cost for being available. Therefore the setup fee seems to be key to ensure development of capacities for DSBR.

In addition some requirements linked to product 1 could be added with regards to a guarantee of DSBR availability. This would be done in order to improve the reliability and the value of the product for National Grid.

The proposed structure of variable payment appears to be an appropriate incentive to deliver according to declared capacity. Yet the baseline methodology does not allow the DSBR provider to be accurate in its delivery since it will not know the baseline when actually delivering.

DSBR4: Do you agree with our measurement and baseline proposals?

Comments on the proposed baseline methodology

We believe the baseline methodology for DSBR should:

- Give visibility to the reserve providers on what level of demand reduction they need to achieve in order to deliver their contracted MW
- Be accurate enough so as to avoid over and under delivery payments
- Avoid providing double payment from different mechanisms (Triad and DSBR for example)

Given the three conditions above, we do not believe the proposed baseline methodology is fit for purpose.

Firstly it does not provide a real time view of how much the capacity need to deliver as the baseline is only known ex-post at the end of the winter and therefore does not give the right tool to the DSBR provider so that he can deliver the correct amount of energy. This drawback is particularly important for sites with a high utilisation price as:

- They need to know if their demand reduction will be high enough to get a payment for it. Indeed, given how much it costs them to reduce their load, if their expected demand reduction is less than 25% of their contracted capacity they will not reduce their load.
- Similarly they want to avoid delivering more energy than their contracted capacity as they will not be paid for it.

Secondly, we do not believe the proposed methodology achieves the right level of accuracy for two main reasons:

- The baseline can be computed based on previous year consumption data which might not reflect the level of consumption in current year (increase/decrease of activity due to change in facilities or change in economic activity...etc.)
- The baseline will take references on several months which might not reflect a possible seasonality in the behaviour of the site consumption.

Finally with regards to the double payment issue, the proposed baseline methodology aims indeed at deterring the valuation of capacity already participating in Triad by computing the baseline on peak days likely to have been tagged as Triads.

Proposal

Given the drawbacks highlighted above, we believe a baseline methodology based on known historical settlements period should be better suited. We would then suggest using one of the following methodologies:

- take the site consumption of the same settlement period of the last 4 identical days during the previous weeks: for a call between 5:00 and 5:30 on a Monday, we would take the average of the last four metered demands between 5 and 5:30 on each of the last four Mondays; or
- take the site consumption of the same settlement period of the last 10 business days (being Monday to Friday excluding bank holidays): for a call between 5:00 and 5:30 on a Monday, we would take the average of the last 10 metered demands between 5 and 5:30 on each of the last 10 business days

We believe these two methodologies provide a better accuracy and give visibility to the reserve providers as to how much demand reduction they need to deliver to achieve their contracted MW level. We also believe they achieve the same goal as National Grid's proposed methodology with regards to the Triad interaction. Indeed, as DSBR will be called off during weeks and months where the weather is cold, there is a good probability that the settlement periods used for setting the baseline in our proposed methodologies will also contain settlement periods that were flagged as possible triad periods.

DSBR5: Do you agree with the proposed arrangements for despatch?

Although we understand National Grid's rational for providing a long notice, we would question whether there would not be events when a capacity shortage can be forecasted only in the very short term (less than 2 hours). If this type of event can happen, it could be worth encouraging DSBR providers to provide a minimum amount of reliable capacities that can deliver power very quickly and with a short notice.

As regard delivery instruction time, our understanding is that instruction could occur with a very short response time, but National Grid is expecting that consumer will anticipate their curtailment if they have a long response time. We do not believe that consumer with a very high curtailment cost and long response time will anticipate a delivery instruction if he is not sure to be rewarded for it or if he is not penalised for not delivering. Overall we would like National Grid to provide reserve providers with the shortest notice period and delivery instruction that providers can expect to be given by the control room.

A “long product” (day ahead notice and 2 hours response time) and a “short product” (Few hours notices and 30 minutes response time) could allow National Grid sourcing reliable capacities meeting their needs.

As stated in response to question DSBR 1, it seems necessary to allow the aggregation of demand side resources. Although we understand it will not be possible to aggregate capacities which do not share the same utilisation price or same location (as they will be in different tranches), it is important for aggregators to be aware of all constraints which would prevent them to aggregate capacities.

DSBR6: Do you agree with our proposals on procurement?

Overall we agree with National Grid’s proposal on procurement. However we would like to understand why tenders will be held at the winter-ahead stage. We would recommend to consider reducing the time between tenders and delivery.

DSBR7: Do you agree with our proposals on verification?

Yes. However, as product 1 receives a set-up payment, we would suggest to include simple ex-post checks to verify the actual level of consumption during windows where a notice of a possible need for demand reduction has been given by National Grid and no firm instruction has been given. Such verification could lead to penalties on the set up payment ensuring a greater reliability of the offered capacity. The value of this reliability should be included when assessing the tender.

DSBR8: Do you agree with that there should be a de-minimis dispute threshold?

No comments.

DSBR9: Do you agree with our proposed approach to contracting?

We believe National Grid’s approach to make the DSBR contract as straightforward as possible is the right one. Nevertheless, as stated before, we regret that there is not a minimum non-performance penalty giving National Grid the insurance it has a balancing service it can count on.

DSBR10: Do you agree with our proposals on imbalance pricing?

Yes.

DSBR11: Do you agree with our proposals on how the service should interact with triad demand reducers?

Although we agree with the principles described here, we regret that only a portion of the full capacity available delivers and gets paid for when a DSBR call off occurs during a non triad period. Furthermore, as explained in our response to DSBR 4, a different baseline calculation methodology based on known historical settlements period can achieve the same target with regards to triad interaction while being a better tool for reserve provider to deliver the right demand reduction.

DSBR12: Do you agree with our proposals in respect of Committed and Flexible STOR providers?

We agree with the principles described here. However, we wonder how National Grid will control that providers are not getting utilisation payment from both STOR flexible and DSBR schemes by effectively declaring themselves unavailable on the afternoon STOR windows. To tackle this issue, we would suggest that National Grid controls that the capacity involved in DSBR did not declare any availability in windows where National Grid has given a DSBR instruction notice.

DSBR13: Do you have any comments on our procurement options?

We are in favour of option b as it might be the most economic and reliable option for the electric system:

- Aggregators already provide various services to the grid by aggregating capacities in order to ensure they can deliver reliably 100% of the required time.
- Although the proposed option for despatching the capacities is cost effective, National Grid could reduce the cost associated with despatch further by reducing the number of market participants.
- As stated in the consultation document, procuring the services via aggregators and subsequent use of existing systems could reduce the cost even further.

TAC1: Do you agree with the way in which we propose to assess Demand Side Balancing Reserve?

As suggested in responses to questions DSBR 3 and 7, if a control of DSBR availability is introduced we believe capacities having a good availability which should be factored in the set up payment and National Grid's preference when assessing DSBR tenders.

TAC2: Do you have any particular comments on the way we propose to use Disappearance Ratios (DRs) for Demand Side Balancing Reserve in the assessment process?

Although we think the proposed Disappearance Ratio of 75% for DSBR is a reasonable assumption, we believe it can be improved by procuring DSBR via aggregators.

TAC3: Do you agree that we should enter into a contract with all Demand Side Balancing Reserve with a utilisation price of less than the Value of Lost Load (VoLL) that has no set-up fee?

TAC5: Do you agree with our proposed call-off arrangements?

No comments.