

## 287/11 A – CONSULTATION RESPONSES

On 16 January 2019 we issued version 0.2 of the draft RR Schedule Methodology for industry consultation, with responses requested by 30 January 2019. Three responses were received from the following organisations:

Respondent	No. of Parties / Non-Parties Represented	Role(s) Represented
National Grid Electricity System Operator	1 / 0	Transmission Company
Quorum Development	0/1	Software Supplier
Dwr Cymru Welsh Water	0/1	Customer

This document collates the responses, and describes the changes that we have made to the RR Schedule Methodology in order to address the comments. As noted in the main paper, we have not yet had an opportunity to discuss the changes we've made to the Methodology with the respondents, but we expect to be able to do so prior to the Panel meeting on 14 February 2019 (and will update the Panel verbally on the outcome).

**Question 1: Do you agree that the draft Replacement Reserve Schedule delivers the intent of the P344 solution (and should be approved by the BSC Panel for implementation in the November 2019 Release)?**

Respondent	Respondent's Answer	ELEXON Response
National Grid Electricity System Operator	Yes. We believe the RR Schedule does align with and will help facilitate delivery of the P344 solution.	
Quorum Development	Broadly, yes: it makes clear the separation between despatch and Settlement, and outlines the process for deriving the schedule to allow settlement to take place against the RR auction result instead of the despatch instructions actually issued by the System Operator, however I am not convinced that the explanation of this process is particularly clear, please see Question 2 and the Specific Comments section for further details. It is clear that the production of the Schedule is not a straightforward process and Market Participant may wish to know the schedule used in the calculation of their cashflows and charges. Clarity and transparency are important: this document (nor any other) does not propose to issue the RR Schedule or Baseline to Market Participants for their reassurance, and I'm not sure I could replicate the Schedule in every circumstance from this document.	On the transparency point, we will be reporting RR Schedules to the market (both via BMRS, and via the SAA-I014 settlement reports), because they are Acceptance Data, and we report Acceptance Data. For example, we have added a <b>Replacement Reserve Schedule Flag</b> to the BOA data group on the <a href="#">SAA-I014 data flow</a> , to allow RR Schedules to be distinguished from other Acceptance Data.
Dwr Cymru Welsh Water	Yes. An extended ramping period would be of use for companies like Dwr Cymru as sometimes due to	Noted, although the maximum ramping duration is a feature of

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	<p>mechanical limitations on the equipment the pumps or blowers ramp up slowly to prevent bursts from sudden significant changes in flow of liquid or gas. One slight concern in that often mains metering is used by end customers as we may not have minute by minute sub metering on kit unlike BM providers and to put in such sub-metering may be expensive over a large portfolio of assets. It is important that the system is both compatible for existing BM units and for aggregators and end customers to be able to participate.</p>	<p>the GC0097 solution, and so not under the control of the Methodology.</p>
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**Question 2: Do you have any comments on the draft RR Schedule? We would particularly welcome comments on the following sections, which may be describing a level of detail beyond that which was discussed by the P344 Workgroup:**

- **The treatment of BM Units changing the direction of their ramp (as discussed on pages 16-17 and illustrated in Figure 13); and**
- **The construction of the final ramp (as discussed on pages 17-18, and summarised in Principles 6 and 7).**

Respondent	Respondent's Answer	ELEXON Response
National Grid Electricity System Operator	These sections align with our understanding, however specific comments are provided on the next page.	See below for responses to detailed comments.
Quorum Development	<p>There is a lack of clarity in some areas, for example the Process description in section 3 is not entirely clear: it suggests that one might proceed from Step 3 to 5 without having to consider Step 4 which looks like a possible path through the process - if Step 2 failed to find 10 minutes ramp at both start and finish then steps 3 (and maybe 5) and 4 would be needed. A flow diagram showing full navigation and decision points would be of great use here. Furthermore in the section on deriving the Baseline there looks to be some confusion between the bulleted statements and the example given (see Specific Comments for details).</p> <p>As for the two specific points raised in the question above:</p> <p>Ramping BM changing direction: whilst this will increase Balancing Deviation Volumes it does seem to be a sensible compromise, and is compliant with the already established separation between RR Acceptances and Instructions.</p>	

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	Final Ramp construction. The approach suggested appears to increase Balancing Energy Deviation Volumes substantially by creating (via the Standard Product Shape) a very steep final ramp between H-55 and H+65, from (in your example) (H+55, -300 MW) to (H+65, 100 MW), with a large part of this volume being on the wrong side of the PN. This seems contrary to current practice, where the PN creates the boundary. In such circumstances would it not be better to create the baseline beyond H+60 as the PN Profile valid at the time of BEGC, the effective time of the RR Acceptance?	
Dwr Cymru Welsh Water	As per question 1.	As per question 1.

### Specific Comments

The following table collates the responses received.

No	Location	Comment	ELEXON Response
<b>Comments from National Grid Electricity System Operator</b>			
1.	General	Please change all the occurrences of "NETSO" to "NGESO" to be more precise	No change proposed. NETSO is the term that was introduced into the BSC (and BSC Configurable Items) by BSC Modification Proposal P369 (' <a href="#">National Grid Legal Separation</a> '), and is therefore the more appropriate term to use in this document.
2.	General	Some occasions when FPN is mentioned, e.g. Page 5, it would be more accurate to use RR Baseline instead, or add the assumption the FPN is modified to include the effect of previous BOAs and RRI's.	Footnote added to page 5 to clarify.
3.	Page 5 Figure 1	The MW levels depicted should be modified to correspond to 100 MW and 80 MW instead (for FPN+RRA etc)	The diagram does show Activations of 100 MW and 80 MW (above the baseline), which is consistent with the text. No change proposed.

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4.	Section 1.3 Page 6 Figure 2	Please note and revise if possible: NGESO RR Instructions do NOT include those elbow points: the unit will be instructed to ramp from FPN to FPN+RRA at 100MW with one ramp rate, and similarly back to FPN line with one single ramp rate.	<p>Our understanding of the current BM process is that:</p> <ul style="list-style-type: none"> <li>The NETSO calculates the ramp time taking into account the elbow points;</li> <li>The instruction issued to the Control Point does not explicitly include the elbow points (just the start and end of the ramp), as per BC2.7.1: <i>Bid-Offer Acceptances sent to the Control Point will specify the data necessary to define a MW profile to be provided (<b>ramp rate break-points are not normally explicitly sent to the Control Point</b>) ...</i></li> <li>In contrast, the BOA data sent to BMRA and SAA for reporting and Settlement purposes is required to include the break-points explicitly. If it didn't the Lead Party would be exposed to Imbalance and Non-Delivery Charges just for following their declared ramp rates.</li> </ul> <p>We believe the same approach will need to apply to TERRE i.e. the RRI (issued for dispatch purposes) may not explicitly include break-points, but the RR Schedule (constructed for Settlement purposes) must do so. A sentence has been added to page 5 to explain this.</p>
5.	Section 1.3 Page 7	The two bullet points stated the fundamental principles for this section, we think it should be moved to the beginning of this section before the examples.	Bullet points moved to start of section 1.3.
6.	Section 1.4.1 Page 8	Would be clearer if it is stated that the volume shaded light brown will be subject to BM settlement, and the area under RR schedule is settled under RR settlement.	Agreed, change made.

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7.	Page 7 Figure 4	Please state which Principle is applied for Figure 4	Change made. Principle 8 applies at the 09:15 boundary.
8.	Page 11 Figure 6	NGESO BOAs will be issued as a closed instruction. In this diagram, please indicate the BOA to be ramped up back to the FPN line.	Explanation added.
9.	Page 11	Minor typo "in in order"	Corrected.
10.	Section 2.1 Principle 2 Page 14	RR schedule allows power level defined to 0.1 MW, whereas NGESO RRI resolution is 1MW, how the settlement is done, can ELEXON specify more details with respect to the rounding difference.	The settlement impact will depend on whether the Lead Party follows the RRI (which is rounded to the nearest MW), or deviates from it by $\pm 0.5$ MWh in order to follow the auction result. We could potentially clarify this in the Methodology (but have not done so yet, pending discussion with National Grid).
11.	Page 14	Minor typo "hat" should be "that"	Corrected.
12.	Page 14 Principle 3	"RR Baseline" definition is very key to the methodology, should be included in Appendix 1 Definitions and Terms.	"RR Baseline" added to Appendix 1.
13.	Page 14 as previous comment	Our understanding of RR Baseline, should be defined as FPN submitted plus any BOAs and RRIs sent BEFORE RR GATE i.e. Before bids are sent to LIBRA platform.	Footnote added to Principle 3 to clarify.
14.	Page 15 Principle 4	"However, Principle 3 can not be applied" should this be Principle 4	Corrected.
15.	Page 15 Principle 4	As above, same paragraph, "In this case, other principles must apply" – please specify what they are – do you mean Principle 5 to Principle 8?	Clarified.
16.	Page 15 Figure 10	The MW levels illustrated should be 100 MW and 80 MW rather than 120 and 100 MW	Figure 10 is referring back to figure 2, where the RR Activations are 100 MW and 80 MW above an FPN of 20 MW (so an absolute level of 120 MW and 100 MW).

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			We have clarified this.
17.	Page 16 Figure 11	Will be helpful to illustrate RR Instruction as well on Figure 11 as NGENSO will follow the ramp rate with the RRI lower than the RR schedule for this case.	Our understanding is that Rule IV would apply, and therefore the RRI would match the RR Schedule (except that the RRI would omit the break-points on the ramp up – see response to comment 4 above). No change made (pending discussion with National Grid).
18.	Page 17 Principle 6	Last two paragraphs: the time is not at H-25, instead, should be at approximately H+0 where NGENSO will wait for BSPs after the auction period.	We understand that National Grid would issue the complete RR Instruction (including the final ramp) immediately after receipt of the auction results (shortly after H-30). No change made (pending discussion with National Grid).
19.	Page 18 Principle 7	RR Baseline - should this included any BOAs issued by NGENSO as well? Please see previous comments about Definitions.	The RR Baseline only includes BOAs issued before RR Gate (H-55 at latest), and the second half of the hour would be 'beyond the wall' at that point, so we believe this part of the RR Baseline could not possibly include BOAs. No change proposed.
20.	Page 18	"ramp down to meet PN at 16:15" should be "ramp up ..."	Corrected.
21.	Page 18	Minor typo "principle 5 to 7" to "Principle"	Corrected.
22.	Page 24	Create ramps of 10 mins or less – please add an example to illustrate as discussed between Elexon and NG see email from Matthew Roper	New diagram added.
23.	Page 24	As above comment, please add examples for section 3.3.3, 3.3.4 and 3.3.5 or refer to previous mentioned Figure illustrations	No change made pending discussion with National Grid.
24.		Please specify what happens to settlement when RRA is infeasible due to the 1 MW rounding of RR Instruction.	See comment 10 above.

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25.	Page 27	Maybe better to include FPN, SEL, CL, BOA in Definitions and Terms as well.	Definitions of FPN, MEL, BOA and CL added to Appendix 1.
<b>Comments from Quorum Development</b>			
26.	Page 8, Section 1.4	Contains text "This information in this section is given as general guidance (to assist parties in understanding the nature and purpose of the RR Schedule Methodology)." For the sake of clarity would it not be better to be explicit about the section being referenced, i.e. is it the whole of Section 1 or is it just Section 1.4?	Agreed – change made.
27.	Figure 8 and accompanying text	The text indicates that the green shaded area is the difference between the RR Schedule and the RR Instruction. Is this right ? should it not be the RR Instruction (which may or may not be the same as the RR Schedule) and the Standard Product Shape, i.e. the difference between what was actually instructed and the ideal instruction?	Corrected.
28.	Principle 8	It would be much clearer to have the RR Baseline and Schedule included on the diagram.	No change made pending discussion with Quorum Development.
29.	Section 3.3.1 Step 1	Derive RR Baseline. I don't think the text leads one easily to the result that the last section of the red RR Baseline is constant at 70 MW between 10:00 and sometime after 10:30. The lack of clarity arises from the statement "From H+60 onwards (extending as far into the future as needed) the RR Baseline is a constant (level) profile at the MW level defined by the final MW level in the RR Instruction relating to the hour; or if no such RR Instruction was received, the value of FPN at the end of the hour (H+60)." which leads one to conclude that for the	We believe the diagram is correct. No change made pending discussion with Quorum Development.

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		<p>example discussed the RR Baseline from H+60 should be set at 70 MW, whereas the statement</p> <p>“For the 90-minute period starting at H-30 and finishing at H+60 the RR Baseline is equal to FPN, as modified by any BOAs or RR Instructions issued prior to Gate Closure for the auction period”</p> <p>seems to lead one to conclude that between 10:00 and 10:30 the RR Baseline needs to be set at the FPN (which is assumed to be the Blue line, even though this is labelled ‘RR Baseline’.</p> <p>The question is, why has the value of 70 MW been extended backwards to 10:00? If this is the intent then the text doesn’t seem to fit.</p>	
30.	Page 24, Step 3	Should step 3 not read ‘Create an initial ramp of 11 to 30 minutes (where possible)?	Corrected.
31.	Throughout	Various typographic errors.	Corrected where spotted.