GC0097 - Grid Code Processes for TERRE

21/02/2017

Agenda

- Recap of discussions at last meeting

- TSO dispatch approach

  - Party Data submission

  - Discussion

- Next meeting (8th March) arrangements

Recap from last time

Our key discussion points were:

1. What data should we request from BSPs in the Grid Code? To what extent does this need validating (and by whom)?

2. How will we manage the 'beyond the wall' issue

3. When will NGET instruct RR activated BSPs, and what will this instruction look like?

4. How will RR interact with the BM?

Car Park (i.e. stuff needing resolution later):

TSO/BSP interactions with DNOs; Arrangements for turning on Grid Code compliance for BSPs;

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Glossary of RR terms

RRA – Replacement Reserve Acceptance

The notification from the TERRE 'central platform' to the TSO advising the volume of RR to be instructed

## RRI - Replacement Reserve Instruction

The electronic notification in the form of a MW profile to advise an accepted BSP to deviate from their submitted baseline (FPN)

RR Schedule - notification sent by NG containing MW profile of BSP RRIs (see also P344; to be clarified further today)
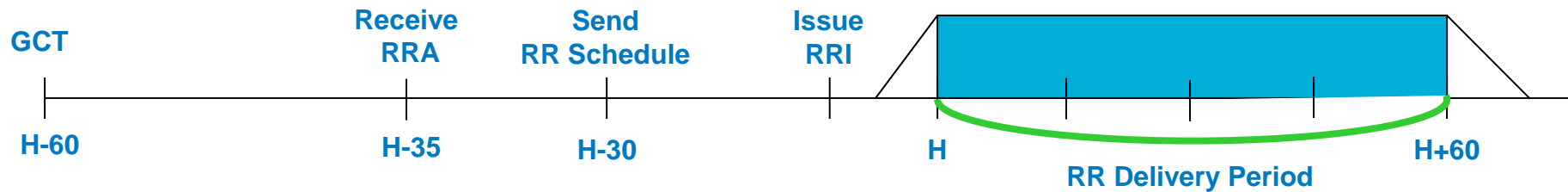
TSO-to-BSP Dispatch

Option 1 – Issue all RRI's at H-30

GCT | **Receive RRA** | **Issue RRI** | | **RR Delivery Period**
H-60 | H-35 | H-30 | H | H+60
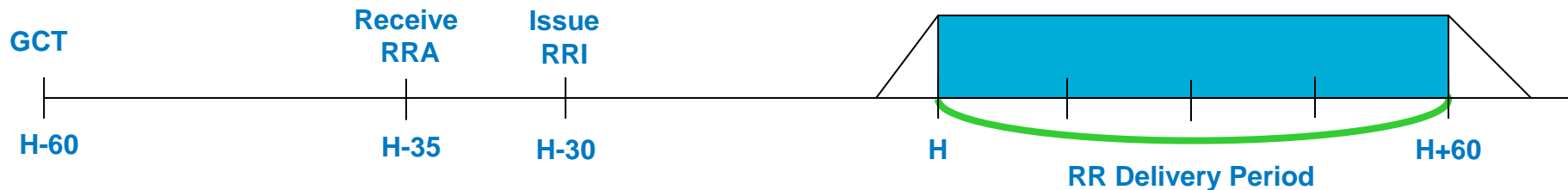
- NGET receives RRA from TERRE at H-35

- NGET creates MW profile for each RRA (energy block + ramps)

- NGET sends **all** RRIs to relevant BSPs no later than H-30

- NGET runs the optimiser to check whether RRI's sent to BSP's are feasible and if not, NG sends counter instructions (BOAs).

- NGET provides instructed MW profiles to Elexon for settlement purposes *(= "RR Schedule")*

*Assumption – NG **must issue** all RRIs at H-30 to be compliant with EBGL.*

Option 2 – Issue RRIs as close as possible to real-time

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GCT	Receive RRA	Send RR Schedule	Issue RRI		RR Delivery Period	
H-60	H-35	H-30		H		H+60

- NGET receives RRA from TERRE at H-35

- NGET creates MW profile (energy block + ramps) and sends "RR Schedule" to relevant BSPs and Elexon

- NGET runs the optimiser to check whether issued RR Schedules are feasible and should be instructed

- NGET send RRIs for feasible RR Schedules at time defined based on the Dynamic Parameters of each provider

- NGET provides instructed MW profiles to Elexon for settlement purposes

*Assumption – NG **must notify** BSPs of accepted RR offers at H-30 and RRIs will be issued at the latest possible time.*

Option 1: RRI at H-30

Pros:

> Clear view for the TSO of what has been instructed at H-30 - allows 30 minutes to re-optimise the system

> Fits within technical capability of EBS - allows automation of RRIs by the ENCC

> Better compliance fit for EBGL for 30 mins activation?

> Limits amount of BSP dynamic data required (i.e. doesn't mandate full BM participation)

Cons:

> Potential for unfeasible RRI's to be sent

> BSPs Control Point will have to keep track of RRIs to change output accordingly

Option 2 – RRI closer to real time

Pros:

> Reduced possibility of sending infeasible RRI's.

> Easier for BSPs Control Point as RRIs are sent just before the start of energy delivery.

Cons:

> Major change on EBS as a result of provisionally instructed RR Schedule.

> NG needs to send an additional notification for settlement (RR Schedule).

> BSPs will need to provide full Dynamic Data/be in the BM

NGET Recommendation

Option 1 is the preferred option for NGET:

- Requires the least changes of IT systems

- Easier for ENCC to deal with issued RRIs rather than provisionally instructed RRIs

    - Potentially more transparent for settlement purposes and for BSPs, as RRAs = RRIs

- Scenarios where NGET will have to send 'counter' instructions to unwind unfeasible RRIs are not likely to be as frequent as anticipated in P344

- In line with EB GL definition of Full Activation Time

Option 1 – RRI at H-30 fully explored

■ RR instructions will be issued as close to 30 mins and will be MW profiles (max 5 points), rather than MW blocks

■ NGET will endeavour to issue as few RRIs as possible for the delivery period, though this is dependent on the extent to which BSPs allow TERRE flexibility to activate them up and down in the delivery period. We would recommend BSPs link bids/offers to avoid this.

   ■ This also puts the onus on BSPs to audit their submissions to TERRE for viability, because…

■ **Our intention is that 100% of RR instructions will be issued**, as EBS can automate this task. This means they can be used for settlement purposes with Elexon (how does this affect the RR Schedule?)

Option 1 – Actions

■ Understand the time gap between gate closure for the 'beyond the wall' PN to be 'finalised' and EBS being able to issue the RRI.

If this time gap is greater than 1 min for example, we may need to issue RR Activations to BSPs to cover off compliance to EBGL (which refers to a "activation request" 30 mins ahead of delivery). Otherwise what format will the RR Activation take – web page? Email? Fax?!

■ Confirm NGET can issue RR instructions which stop at the 'wall' (/the end of the delivery period) rather than ramp down.

*We think so, allowing us to issue a new RR instruction to instruct for the **next** RR delivery period (either to ramp down, maintain the previous position, or something else) rather than issue a ramping instruction which might then be paid?*

Option 1 –Actions

- Should there be any limitation on the Ramp Rates which can be submitted for TERRE (noting they will be the same for BM participants)? Can we permit near immediate ramping (e.g. Pump Storage)?

- …What else?

BM Interactions
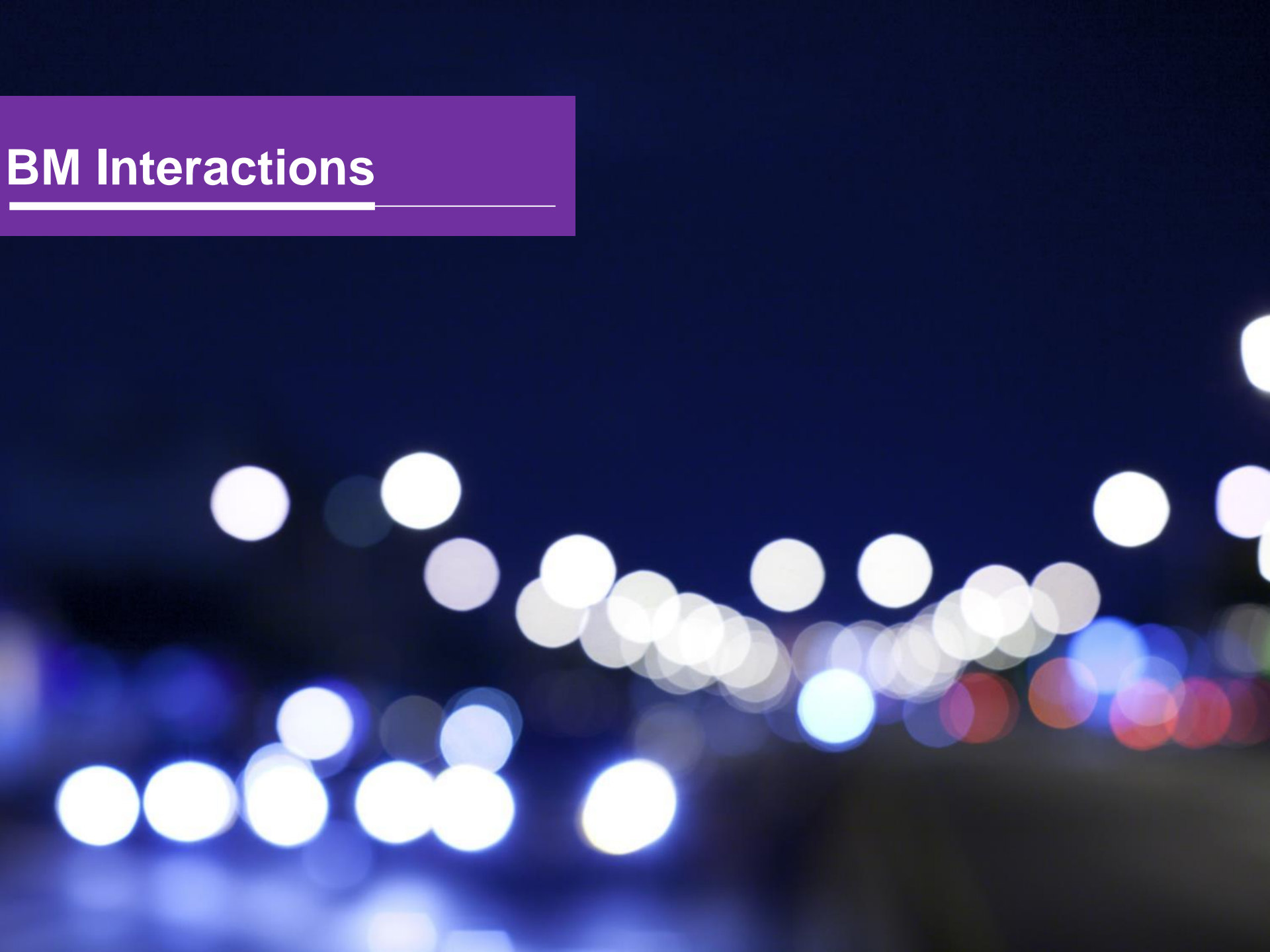
Interaction with the BM

- Would a potential BOA moratorium for the period between BSP submission for TERRE up to RR Activation/RR Instruction help provide clarity for all?

  - Once we know the Capped Committed Level post RR Activation, BOAs can be issued (including for the Delivery Period ahead) and their interactions with RRIs (issued in full) known)

  - This also makes a distinction that not all BSPs will automatically be BM Participants, and the guidance already provided re. 'unwinding' RRIs via BOAs (RRI unwinding may be effected by instructing a different BM Participant)

RR <-> BM Interaction Diagram

Microsoft Excel Worksheet

Next steps…

Next steps

- Confirm actions

- Confirm agenda – 9th March meeting (NGH)