

Power Available Options Discussion



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What is the Challenge?

- The System Operator requires data from generators to manage real time despatch
 - For short term balancing
 - For balancing services
- Data required
 - Capacity available (for reserve)
 - Accurate reference point for despatch
 - Price in the BM

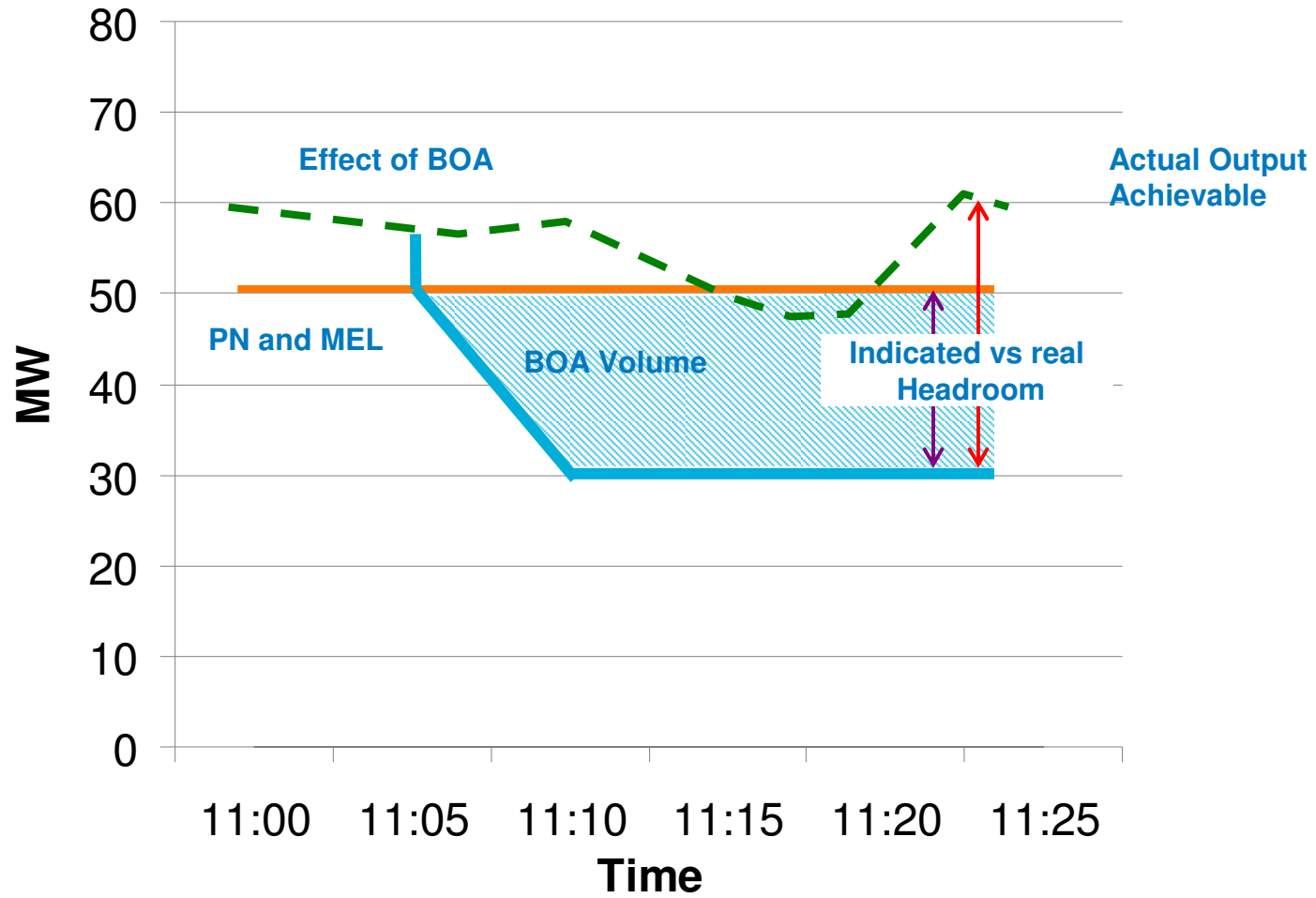
What we get now...

- Physical Notifications – MW and Times
- Maximum Export Limits – MW and Times
- Dynamic Parameters (static data)
 - Stable Export Limits
 - Run Up Rate/Run Down Rate etc
- Bid/Offer Data
- Power vs Windspeed Curve
- Wind Speed
- Metered Output

What is the issue?

- Forecasted generation output can vary between different generators
 - Can lead to more reserve being procured
 - Inefficiencies in planning
- PNs cannot be changed after gate closure
 - Is this a problem which needs to be addressed?

Example - Current



What happens if there is no change?

■ Parameters

- Physical Notification (PN)
 - Can be no less than 60 minutes old
 - Data format is restricted to MW and spot times
 - Can this represent wind based PPM output?
 - How significant is the timing induced error?
- Maximum Export Limit (MEL)
 - Can be varied in shorter timescales
 - Can be used to 'cap' PNs
 - Obscures balancing service capability
 - Bid/Offer volume potentially unrepresentative
 - Same data format restriction as PN – is this relevant?

■ Assessment

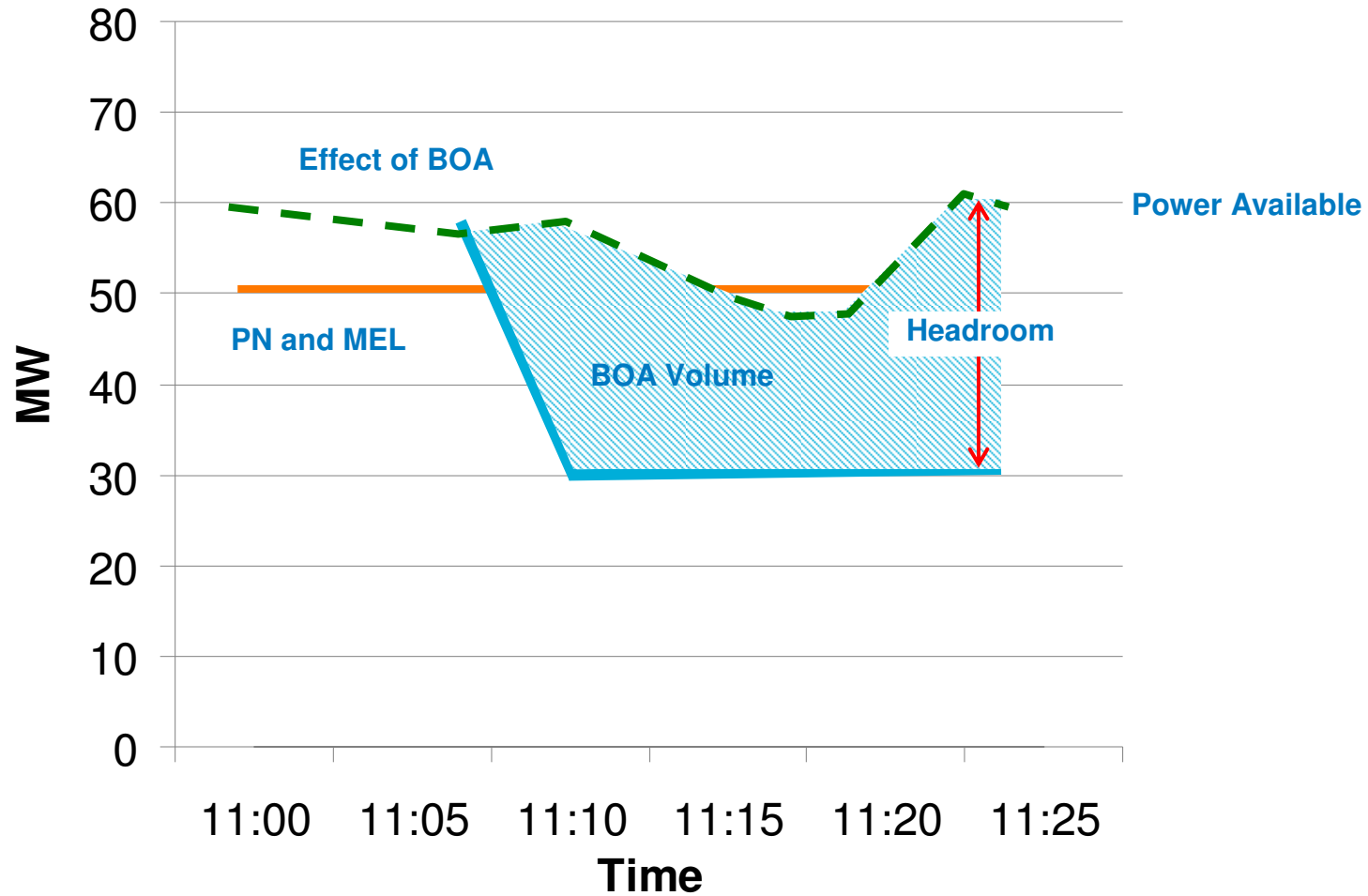
- Technical and Commercial rules understood ✓
- PNs cannot be revised within gate ?
- Capping with MEL does not convey the information required ✗
- Could PNs and MELs provide adequate information with a change of mindset in data submission (ie more frequent changes) ?

Potential Option – Power Available

- First question, ‘what is it?’
- **Proposal:** Indication of maximum achievable (‘weather dependant’) output
 - Variation 1 – real-time or forecast plus real-time
 - Variation 2 – distributed or centrally processed

- What are the implications
 - Potential replacement (supplement?) for MEL parameter
 - Facilitating changes within gate minimises forecast error (MEL can already do this!)
 - Gives a good upper measure of headroom for reserve and balancing service purposes (ditto)
 - Opportunity to address limitations of current data format
 - Indication of planned deviation from MEL still required
 - PN still needed?
 - PN only needed on occasion?
 - PN deemed equal to Power Available unless otherwise submitted?
 - Key parameter for balancing services

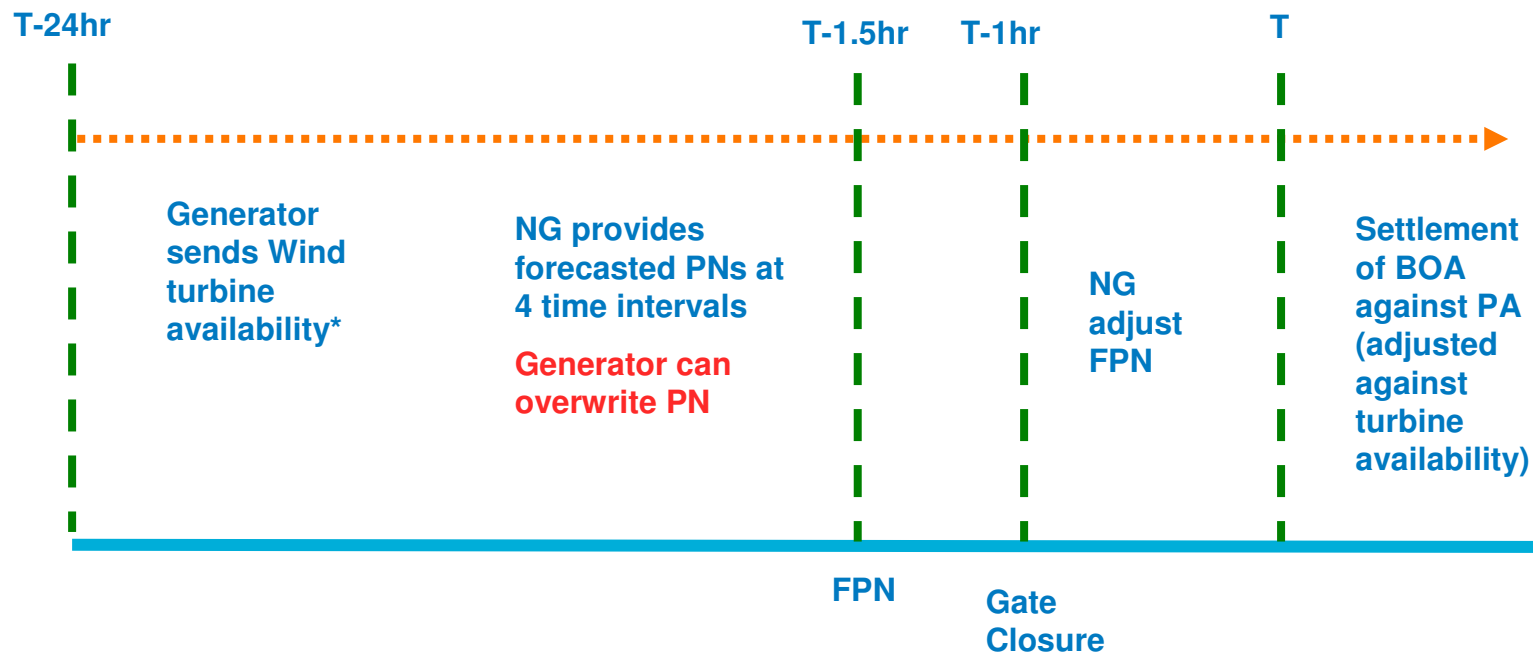
Example - Power available



Questions

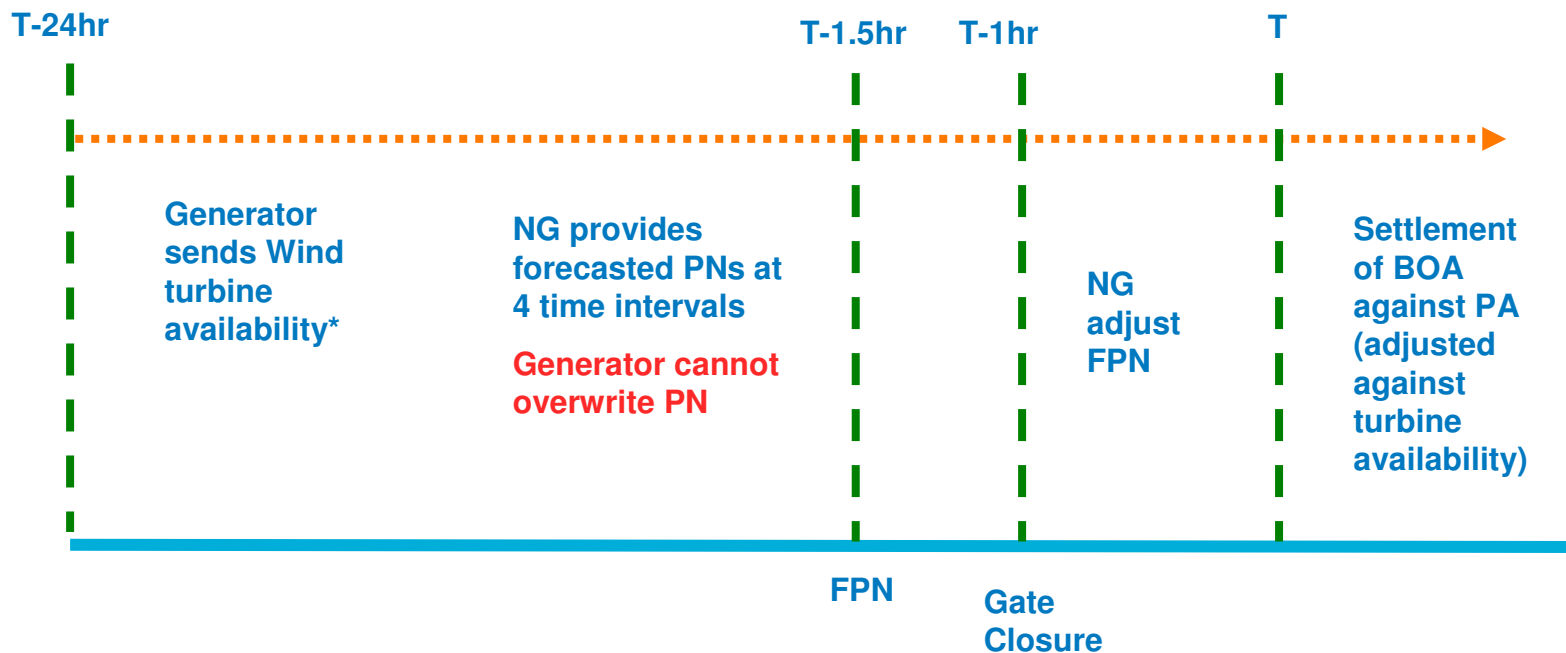
- Should NGET forecast PNs or should individual generators be responsible?
- Should BOAs be settled against FPNs or Actual Power Available?

Option 1 – NGET PN Provision - flexible



* an indication of the 'non-weather dependant' capability of the PPM/BMU, perhaps in the form of a power vs wind speed chart

Option 2 - NGET PN Provision – non flexible



* an indication of the ‘non-weather dependant’ capability of the PPM/BMU, perhaps in the form of a power vs wind speed chart

Summary

	Turbine Availability	Physical Notifications	BOA	Balancing Services	Settlement
Current	N/A	Generator	Against FPN	Against FPN	Against FPN
Option 1	Generator submission	NGET or Generator	Against adjusted FPN	Against FPN	Against Actual PA
Option 2	Generator submission	NGET	Against adjusted FPN	Against FPN	Against Actual PA