Intermittent Generation Strategy







Grid Code Review Panel – 18 July 2012

Steve Lam steven.lam@nationalgrid.com

Intermittent Generation

- Consultation on managing intermittent and inflexible generation issued in September 2011. Focus on:
 - Balancing Mechanism participation
 - Pricing
 - Requested views from the industry
- Commercial Balancing Services Group (CBSG) aimed to:
 - Discuss issues
 - Develop potential solutions

Interactions - C/11

- Grid Code obligation requires a best estimate from generators of their output
- Grid Code consultation C/11 published in May 2011 aimed to relax obligations on intermittent generation
- Reconvened WG on 07 November 2011 to discuss
 - NGET proposal to relax obligations on wind but issue
 BOA when required
 - BOA is settled on bid price as normal
- Recommended the investigation of a "power available" signal

Interactions – High Wind Speed Shutdown

- Impact on wind turbines during high wind:
 - Disconnection low frequency event
 - Reconnection high frequency event

- Issue discussed at workshop on 11 April 2012
- Recommended a Workgroup to be set up under the GCRP

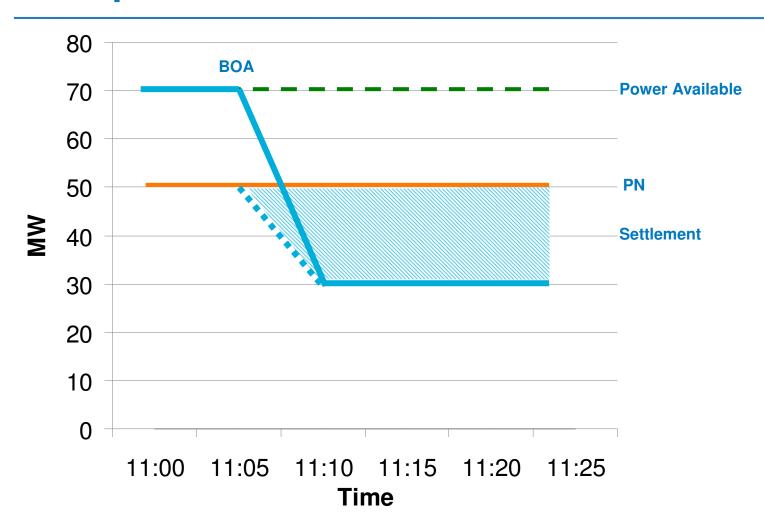


Power Available

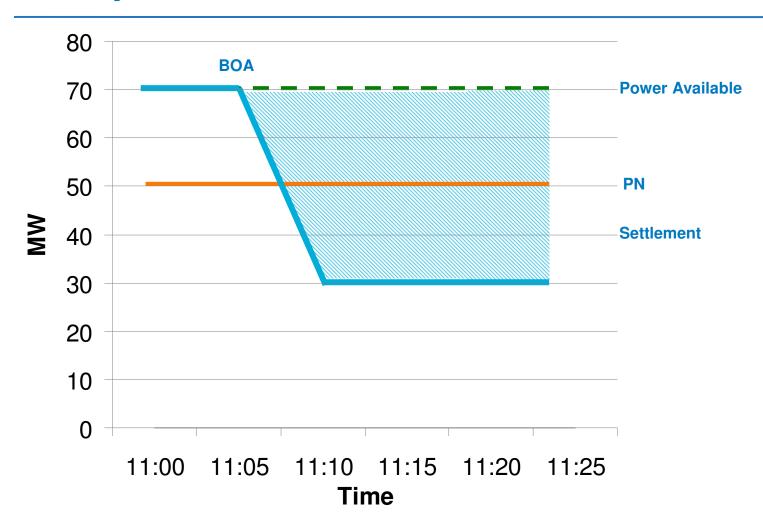
- Uses wind speed to calculate power available
- BOAs are still issued to wind generators
- Power available used as reference instead of FPN
- Obligation on wind generators to provide data
- Aggregated from each turbine
- Possible inclusion for other renewables



Example - Current settlement



Example - Power available settlement



Possible considerations

- Impact of maintaining status quo
- Industry costs of implementation vs cost of implementation
- Improvement over accuracy of PNs
- Power available for other renewables
- Retrospective application

Possible benefits

- Addresses issue of inaccurate PNs from intermittent sources
- PNs should still be used to notify predicted output
- In times of curtailment, the power available will better reflect the actual bid/offer volumes
- Provides System Operator with a better indication of frequency response from generators
 - Leads to greater efficiencies

Proposal

- The GCRP is asked to agree:
 - The progression of Power available under Grid Code governance
 - To act as the coordinator for technical proposals relating to intermittent generation
 - The Terms of Reference for Power Available and High Wind Speed Shutdown