Frequency Management Update

Matt Magill, Trading and Assessment Manager
April 2013
Downward Regulation, Inertia and Volts

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Tender History

- **Summer 2012**
  - Specific Olympic voltage requirements
  - Southern Voltage requirements
  - Focus on downward regulation in assessment of tenders

- **Summer 2013**
  - Southern Voltage requirements
  - System Inertia requirements
  - Focus on downward regulation in assessment of tenders
## Downward Regulation, Inertia and Volts interaction

<table>
<thead>
<tr>
<th>Local or System Issue</th>
<th>Resolving Actions</th>
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<tbody>
<tr>
<td>Downward Regulation</td>
<td>System</td>
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<tr>
<td></td>
<td>Less inflexible machines</td>
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<tr>
<td>System Inertia</td>
<td>System</td>
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<td></td>
<td>More rotating mass</td>
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<td>Voltage</td>
<td>Local</td>
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<td>Machines with MVAr capability in local areas</td>
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Open invitations issued to Workshops on “G83 and G59 Protection Requirements”

- London – 25th April
- Glasgow – 8th May

Workshops aimed at the many distributed generation stakeholders

- Open to all interested parties

Operational and Balancing Service Requirements updates will continue via the Operational Forum
Issues are all most prevalent overnight under high wind/import conditions

System must be optimised to all three issues concurrently

Internal tool has been developed which forecasts volumes and costs related to the optimisation of all three issues
System Voltage

- **What we know**
  - Prevalent market conditions for coal as base load
  - Resultant geographical generation mix this summer results in expected requirements for plant in
    - South East of England
    - South Coast of England
    - General Southern England

- **What we don’t know**
  - MVAr & MW capability from non-standard operating of machines

- **Where we want it**
  - Southern England, focus on South East
System Inertia

- What we know
  - Inertia values for all machines connected to the system in standard state
  - Overall inertia requirement to maintain frequency security standards
- What we don’t know
  - Inertia values for non-standard operation that maybe available
  - Additional inertia that may be available from additional machines
- Where we want it
  - GB
Downward Regulation

What we know

- Reserve and Response requirements to maintain frequency system security standards
- During any particular period the SELs, MELs and PNs of available units

What we don’t know

- Of any machines that are able to offer parameters outside the normal operating range during these periods
  - Whilst preferably still offering the same amount of system inertia

Where we want it

- GB
Tender

- Downward Regulation, Inertia and Voltage Tender
  - Tender to be sent out this week
  - First Round Submissions to be returned by 26th April
  - Commencement beginning of June
- Please speak to your account manager if you have any questions
- We are also interested in talking about bi-lateral agreements for longer term inertia products