

# Commissioning Huntly Unit 5

Industry briefing  
20 November 06

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# Agenda

- Welcome – Kieran Devine, GM System Operations
- Introduction (5 min)
- Technical changes (15-20 min)
  - Risks covered
  - Tool changes
- Operational process (15-20 min)
- Scenarios and impact analysis (15 min)
- Questions and discussion (45 min)
- Close

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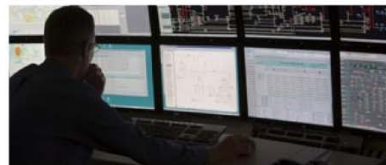
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# Tool changes

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# Options considered for covering Secondary CE and ECE events in Scheduling and *Real Time*

1. Cover HLY5 as a secondary CE at all times.
2. Change Scheduling and Dispatch model.
3. Change under frequency targets in the RMT software.
4. Require the system conditions for HLY5 to be ideal
  - demand level
  - plant mix
  - HVDC levels.
5. Having 3 generator models in RMT and SPD to model HLY5 at either secondary CE, ECE or normal risk.

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# Options considered for covering new CE and ECE events in Scheduling and *Real Time* (cont.)

6. Dispatching greater amounts of reserve than specified in RMT.
  7. Use a spreadsheet to manually calculate level of reserve required.
  8. Modify the front end of RMT to enable the programme to change the risk level of secondary CE and ECE.
- Option 8 is our chosen option.

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# Changes to the Reserve Management Tool

- Modifications carried out to enable
  - secondary CE tripping and
  - secondary ECE tripping of two generators
  - secondary ECE tripping of a generator and the HVDC bipole.
- Consider a synchronous generator as part of ECE risk in RMT.

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# Changes to the Scheduling, Pricing and Dispatch Tool

- There are to be no changes to the Scheduling, Pricing and Dispatch tool (SPD).
- The changes that have been carried out to RMT do not require any modifications to SPD.

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# Options considered for modelling Huntly unit 5 in SPD

1. Model HLY5 as a risk generator. The effects of this are:
    - HLY5 generation could be reduced by SPD (as other risk setters could be)
    - when HLY5 is at a high output and is a secondary CE risk there is a problem with SPD double accounting the risk. This could lead to infeasibilities in SPD.
  2. Not modelling HLY5 as a risk generator. The effects of this are:
    - HLY5 generation will not be reduced by SPD. Other generators could be reduced in output if there is insufficient reserve available, but the results of RMT studies are stable.
- Option 2 is our chosen option.

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# Discretionary constraints

- RMT results come from previous SDPQ.
- Discretionary constraints are required in dispatch to ensure the risk does not exceed the level for which reserves have been procured.
- Discretionary maximum constraints on generation will be applied when:
  - HLY5 is the largest AC CE risk, and
  - the AC ECE is the binding risk or could be the binding constraint if output on another generator is increased.
- At minimum, will constrain to level in last SDPQ prior to trading period.

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# Other Issues

- Voltage stability in Zone 1
  - changes to voltage stability tool to cater for CE, ECE and Normal operation.
- Time of Commissioning (December, January and February).
- Planned Drop load tests.

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