

National Frequency Keeping Market

WAG Meeting

1 May 2014

Progress to date

- ❑ Initial briefing paper discussed at the October 2013 WAG meeting
- ❑ Presentations on scope made at the November 2013 and February 2014 WAG meetings
- ❑ Early estimates of benefits indicated a clear case to progress the project and to move directly to a WAG recommendations paper to the Board
- ❑ Feedback from the February 2014 meeting - clarify the problem definition and focus on the analysis of benefits in the draft paper

Progress to date (2)

- ❑ The system operator has completed the first level of investigations and reported on its findings
- ❑ Feasibility confirmed
- ❑ High level cost estimates for market implementation:
 - \$5.2 m for selection in SPD
 - \$3.8 m for selection in an independent solver (no co-optimisation)

Problem definition

- ❑ The current FK market is not as efficient as it could be
- ❑ Improvements can be made by:
 - selecting from a wider (national) pool of providers
 - co-optimising selection with energy and reserves
 - reducing the MW quantity of FK procured by creating a national market

Recommendations

□ Key recommendations, as set out in the paper, are as follows:

1. The WAG concludes that implementing an NFKM would result in a substantial net economic benefit (section 5 of the paper) and that doing so would be consistent with the Authority's statutory objective and Code amendment principles (section 3 of the paper).

Analysis based on modelling shows the NPV of benefits to be \$101 m vs estimated implementation costs of \$5.2 m

2. The WAG therefore recommends the Authority should progress the NFKM as a priority project. The WAG considers this project should be developed in parallel with the national reserves market initiative. The WAG recognises that of the two projects, the NFKM has a wider technical scope of work, and as a consequence would be commissioned following the introduction of the national reserves market.

Priority based on expected returns and linkages with national reserves due to common usage of HVDC modulation controls

Recommendations (2)

3. The WAG endorses the investigation work initiated by the Authority in engaging the system operator to identify the best options for implementing an NFKM in more detail. The WAG agrees that the Authority and the system operator jointly are best placed to complete this work as it is technical in nature.

Investigations have progressed in parallel with the WAG work to verify feasibility and estimate implementation cost

4. Key design questions are likely to include:
 - the method of selection for frequency keepers
 - the extent to which enabling Code provisions for an NFKM are centralised in part 13 of the Code to create alignment between the energy, reserves and FK markets
 - the extent to which the new HVDC bi-pole control system functions including round-power and FKC can be utilised to support an NFKM.

Accepting linkages with the national reserves project

Next steps

- ❑ Targeting the June Board meeting for the WAG's recommendations paper
- ❑ If the Board agrees, complete detailed investigations to prepare cost estimates to budget level accuracy
- ❑ Seek approval from the Board for a capital project to implement a national frequency keeping market
- ❑ Develop enabling Code amendments in parallel with the capital project