

# Grid Code Development Forum

## Agenda Item 4: Multi-Shaft Modelling



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## Background

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- Multi-Shaft Modules have a ‘single power’ source with multiple sub-units with their own shaft to allow flexible operation (e.g. gas and then heat for CCGT; water for cascade hydro).
- This provides economies of scale, operational efficiency and flexibility for the generator, and in theory should permit additional commercial opportunities too
- However, under the BSC and Grid Code these modules are registered as a single BM Unit
- This means that for forecasting, balancing services participation and dispatch (+ settlement), that a single unit operation is deemed

## The issue

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- Multi-shaft module units cannot participate in the power or balancing markets reflecting the true flexibility of operation that is possible
- NGET can only see a single unit (when in theory there could be two or more), and therefore has an inaccurate/incomplete profile for demand forecasting and system modelling algorithms
- The generator may dispatch its plant operationally utilising its full capability, but cannot realise this for commercial opportunities

## Work on MSM to date

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- GC0038 (EBS Group) considered MSM as part of its scope, forming a sub-group to consider settlement issues...
- A BSC mod paper was draft addressing the limitation of settlement and Balancing Mechanism pricing – this was not taken forward
- A draft Grid Code issue paper for GCRP (was not presented) which attempted to address the unit modelling aspect of the problem and then considered the impacts on BSC settlement
- Today

# What are your thoughts?

Discussion...