Issue Report

Issue 37: Boundary Point Metering and BM Unit Issues in Section K

(BSC Panel, raised May 2009)

Recommendation: Close the Issue

- John Lucas
- 9 July 2009

Issue 37: Boundary Point Metering and BM Unit Issues in Section K

- Issue 37 raised by BSC Panel to consider three issues from ISG:
  - Switching of Generating Plant between BM Units
  - Unduly onerous metering requirements
    - at offshore wind farms; and
    - for CCGT Modules

Issue 1 – Switching between BM Units

- Issue 37 Group believes this is a significant issue for offshore wind farms that have both:
  - Two or more connections (at 132kV or higher) to the onshore system; and
  - Capability to re-route output from one connection to the other (e.g. if there is a fault in one of the transformers offshore)

Issue 1 – Switching between BM Units

- BSC prevents switching of a turbine's output from one connection to another because:
  - Each connection to shore will have its own BM Unit (or BM Units); and
  - Section K does not allow it;
  - Requires lengthy re-registration process

Issue 1 – The Solution

- Solution is to allow Generating Plant to move from one BM Unit to another nearby BM Unit:
  - Registration process amendments
  - The term ‘Switching Group’ has been suggested for a group of BM Units that can ‘share’ Generating Plant in this way
- Requires Modification Proposal

Issue 2 – Metering of Offshore Wind Farms

- BSC requires metering of electricity flows at each Boundary Point (i.e. point where a Generator connects to the Transmission System or Distribution System)
- Reflects the onshore situation, where most BM Units have a single Boundary Point

Issue 2 – Metering of Offshore Wind Farms

- Offshore wind farms are different:
  - Transmission System boundary may be on the Low Voltage side of the offshore platform (which means more Boundary Points)
  - Grid Code has been changed to allow many offshore Boundary Points to be treated as a single Offshore Power Park Module (and hence a single BM Unit)
- Metering each Boundary Point is no longer necessary to determine the Metered Volume for each BM Unit

Issue 2 – The Solution

- Allow offshore generators to choose where they place their metering, provided that:
  - The Central Data Collection Agent can determine the Metered Volumes for each BM Unit; and
  - Losses are accounted for
- Requires changes to:
  - Definition of Import and Export in Section K
  - Metering Codes of Practice
- Centrica has raised Modification Proposal P238

Issue 3 – Metering of CCGT Modules

- Originally, the BSC required each Generating Unit to be separately metered
- Modification Proposal P162 removed this requirement for Exemptable Generating Units (recognising that it wasn't industry practice to meter them)
- Now another exception has come to light - Combined Cycle Gas Turbine (CCGT) Modules, where two or more Generating Units may be treated as a single BM Unit for Settlement purposes
- Many such sites only meter the net output at the Boundary Point, so they are non-compliant

Issue 3 – The Solution

- Not appropriate to require each CCGT Module to be separately metered (if they are in the same BM Unit and connected to the same Boundary Point)
- Solution is to recognise CCGT Modules as a further exception to the rule that each Generating Unit should be separately metered
- Requires Modification Proposal

Issue 4 – BM Unit Configuration for Offshore Wind Farms

- New issue identified by the Issue 37 Group
- BSC defines a Power Park Module as a default BM Unit Configuration
- New regime for Offshore Transmission has introduced a new definition of Offshore Power Park Module (OPPM)
- There are advantages in allowing more than one OPPM to be combined into a single BM Unit

Issue 4 – Potential Advantages of Combining OPPMs

- Depending on design of offshore platform, allowing OPPMs to be combined into a single BM Unit may offer these advantages:
  - Avoid unnecessary metering
  - Allow reconfiguration of switchgear in response to outages on offshore network (at least for wind farms with only one connection to shore)
  - Avoid administrative burden of additional BM Units

Issue 4 - The Solution

- BSC should provide the option of treating more than one Offshore Power Park Module as a single BM Unit, where the Generator and the Transmission Company agree
- Centrica has raised Modification Proposal P237

Summary of Findings

- Four issues identified:
  - Three affect offshore wind farms
  - One affects CCGT Modules
- Unanimous view of Group is that all four should be resolved through BSC Modification process – but this depends on Parties raising Modification Proposals
- Centrica has now raised Modification Proposals P237 and P238 to address two of the four
- A Party has indicated that they expect to raise further Modification Proposals for the August meeting

Recommendations

- NOTE the Issue 37 Group's discussions of, and solutions to, the identified issues;
- NOTE the unanimous view of the Issue 37 Group that it would be desirable for the BSC to be amended to resolve these issues;
- NOTE that these Modification Proposals would need to be raised by a BSC Party (or Parties); and
- AGREE that Issue 37 be closed