DS3 System Services: Portfolio Capability Analysis

Clarification Note

December 2014

1. Overview

The TSOs are issuing this clarification note on foot of feedback from some industry participants regarding the publication of the DS3 System Services Portfolio Capability Analysis report on the 25th of November 2014.

2. Clarification

The significant industry consultation in relation to System Services by both the TSOs and the Regulatory Authorities has identified industry concerns over the required volumes of individual System Services. The Regulatory Authorities requested that the TSOs provide an initial indicative assessment of aggregate portfolio capability of the System Services products to better understand the possible system services volume requirement.

The DS3 System Services Portfolio Capability Analysis report was published after review and discussion with the Regulatory Authorities. The aim of the report is to provide indicative volumes of the required system services by 2020, in order to be able to meet the 2020 renewable targets. To do this it was necessary to identify a portfolio that could be used to meet this requirement and is a first step in identifying the volumes of system services that will be required for meeting the 2020 targets. This work will be augmented by more detailed analysis as part of the System Services detailed design and implementation project. **This analysis should not be construed as predetermining, or forecasting, the technologies which will be, or should be, successful in a system services procurement process.**

The document is based on aggregate portfolio capability by System Services product for (1) the existing portfolio and (2) for an enhanced 2020 portfolio[1] that the TSOs believe could meet the 2020 renewable electricity targets based on engineering judgment.

For clarity, the TSOs are absolutely not representing that the enhanced 2020 portfolio used for this analysis is the only portfolio, optimal portfolio or a preferred outcome. The TSOs believe that there are myriad, credible enhanced 2020 portfolios that could also deliver the required performance capabilities. Ultimately, the portfolio will be driven by market forces.

Finally, the TSOs would like to draw your attention to section 2 of the DS3 System Services Portfolio Capability Analysis report:

This analysis is based on desktop analysis, is indicative in nature and should be considered in the following context:

Limitations

1. *Any portfolio must be capable of always meeting realtime system service requirements over the full range of possible system conditions, e.g.*
    - *Wind ranging from 0 MW to 4600 MW*

[1] The term *enhanced 2020 portfolio* in this context represents a generation portfolio whose System Services capability is augmented by construction of new plant, retrofitting of existing plant, integration of new technologies etc.

- *Demand ranging from 2000 MW to 7000 MW*
- *Full import to full export on interconnectors*
- *Largest single infeed / outfeed: 200 MW to 530 MW*
- *Transmission infrastructure build-out and outages*
- *Service provider size / location / capability / performance*

The realtime requirements for system services will vary with these system conditions.

2. *The realtime system service dispatch will need to take account of the cost of delivering the services. For example, a unit which is capable of providing a significant portion of a realtime product requirement may be very costly to operate in the energy market and thus will present limited realisable value from a realtime system services provision context.*

3. *There are a range of potential portfolio solutions which would allow the system to be operated at 75% SNSP – the system services capability of these portfolios will likely be different from those detailed in this report.*
    - *Each individual component of a portfolio solution has its own technical characteristics, i.e. particular system services that it can or cannot provide*
    - *By setting the volume of individual system services on an assumed portfolio basis a particular technical outcome may be determined and advantage or disadvantage certain technology types.*

Caveats

1. *The system services capability provided in this report is based on a single enhanced 2020 portfolio that the TSOs believe can meet the 2020 renewable electricity targets. This is not to say that this is the system services capability required to meet the 2020 renewable electricity targets – for example the 2020 portfolio is likely to be different and therefore the level of capability required may be different.*

2. *The enhanced portfolio detailed here is based on TSO engineering judgement – the TSO expects that the enhanced generation portfolio will evolve based on market forces and is committed to a technology neutral stance.*

3. *Volumes detailed in this report are not suitable for auctions or tariff setting.*

// ENDS