DS3 Programme Advisory Council Meeting Minutes

Date: 14/01/2015
Time: 10:00 – 15.35
Venue: Radisson Blue Hotel, Belfast.
Chair: Andrew Cooke

Attendees: Paul Brandon, Michael Conlon, Caitríona Diviney, Joe Duddy, Peter Duffy, Paddy Finn, Vandad Hamidi, Peter Harte, Tony Hearne, Mick Hogan, Carsten Junge, Denis Kelly, Andrew McCorriston, Declan Meally, Robert O'Rourke, Gráinne O'Shea, Donal Smith, Colin Spain, Stephen Walsh, Robbie Aherne, Andrew Cooke, Louis Fisher, Kieran Kelly, Eoin Kennedy, Michael Kilty, Sam Matthews, Tom McCartan, Séamus Power, Eoin Sweeney, Brendan Woods

Apologies: Mervyn Adams, Jo Aston, Denis Cagney, Brian Carroll, Joe Durkan, Tanya Hedley, Ian Luney, Gerry McTiernan, Colm O'Conaill, Mark O'Malley, Bill Stevenson, Peter Thomas, Pamela Walsh

Industry Perspective

- Andrew Cooke introduced the three new members to the Advisory Council. Each member gave a brief update on their background.
    - Vandad Hamidi from National Grid gave an overview of the 'System Operability Framework (SOF) 2014'.
    - Paddy Finn from Electricity Exchange outlined some current opportunities and challenges in the demand side industry.
    - Mick Hogan from ABB gave a brief overview of his experience in the power industry
- Denis Kelly was also welcomed as the new NIE representative.

DS3 Programme Update

- Robbie Aherne gave a general status update on the DS3 programme and all 11 workstreams.
- An update was provided on reports which have gone through the Operational Policy Review (OPR) process.
- It was noted that following on from the risk workshop which was held at the last Advisory Council, the TSOs will circulate draft controls and risk responses to the Advisory Council members for comment. The TSOs propose to run a risk workshop on an annual basis which was welcomed by the Advisory Council members. The next workshop will be held in September.
- The progress of the annual review of DS3 workstream plans was provided. It was stated that the TSOs will look to send the first batch of draft workstream plans to the Advisory Council for comment before the end of January.
- The 2015 focus areas were presented to the Advisory Council members. There include:
    - RoCoF Implementation Project
    - System Services Detailed Design and Implementation Project
    - Operational Policy
    - Control Centre Tools
    - Continued TSO-DSO engagement

Discussion:

- There was a brief discussion around the letter sent by the TSOs to the SEMC on behalf of some members of the Advisory Council. The letter outlined concerns about delays of timelines on the DS3 Programme and was signed by a number of Advisory Council members.
- PB provided an overview of the SEM Committee response to this letter stating that the SEMC acknowledged the importance of the DS3 Programme and that since the letter was received

progress has been made with the recent decision on System Services which was published on 19/12/2014 and the RoCoF Generator Implementation Project kicking off on 21/11/2014.

- It was queried whether the focus of the RoCoF workstream had shifted from 'Plan A' i.e. the Generator Studies Project plus TSO-DSO Implementation Project, to 'Plan B' i.e. the Alternative Solutions Project. The TSOs clarified that they believe 'Plan A' is achievable and reflects the RAs' position in the 2014 RoCoF decision papers.
- Concern was raised that a large number of older generators' equipment may have difficulty complying with the new 1Hz/s RoCoF standard. AC stated that these older generators would likely have experienced high RoCoF values when the system was less developed (with the North-South interconnector not operational, for example) and electricity demand was lower. GOS requested the TSOs retrieve old system records which provide evidence of high RoCoF and significant frequency events on the system, and requested details on when these events occurred with for example information on what generators were on the system at the time.
- Additionally, an analysis of derogations for the first nine months of the year was requested for the September Advisory Council meeting.
- A discussion was held on the real time short circuit tool and using some of this data to feed into generator compliance studies.
- A discussion on the 2015 Operational Capability Outlook was held – concerns were raised about SNSP and delays in RoCoF and System Services projects which could lead to increased curtailment levels. Following on from this the wind farm build out rate was discussed. The TSOs stated that any further information from the wind industry on build out rates and connection dates out to 2017 would be beneficial and could help in accurately forecasting the likely SNSP step graph out to 2020.
- DS requested that the 2014 Curtailment report be published as soon as possible.

Action Item

1. Where possible, TSOs to retrieve old system records which provide evidence of high RoCoF and significant frequency events on the system, and present the findings at the next Advisory Council meeting. **(TSOs)**

2. At the September Advisory Council meeting, the TSOs are to provide an update on Generator compliance with the Grid Code. **(TSOs)**

3. At the request of the Advisory Council (and where possible), the TSOs are to provide a short summary report on operational studies which have gone through the Operational Policy Review Committee. **(TSOs)**

4. TSOs to circulate risk controls and risk responses relating to the risks raised at the September 2014 Advisory Council risk workshop. **(TSOs)**

5. TSOs to circulate draft copy of the workstream plans to the Advisory Council members for comment by the end of January. **(TSOs)**

6. Advisory Council members to provide the TSOs with any relevant information in order to update the wind farm build out rate. **(Advisory Council)**

7. TSOs to provide indicative figures of the 2014 windfarm dispatch down at the next Advisory Council. **(TSOs)**

ROCOF

- Eoin Kennedy provided an update on the RoCoF implementation project including the overall project timelines. The TSOs believe that the Generator Studies Project and the TSO-DSO Implementation Project are achievable. It was reiterated that the Alternative/Complementary Solutions Project is a techno-economic assessment not the start of a procurement process and that it should be viewed as 'Plan B'.
- The scope of and high level process for the generator studies and the methodology for the Alternative/Complementary Solutions project were outlined and discussed.
- EK stated that the TSOs are proposing to re-focus Phase 1 of the Alternatives / Complementary Project to deal with some of the major issues raised during the industry

engagement process e.g. the ability of non-synchronous response ("synthetic inertia") to specifically manage the RoCoF issue (notwithstanding that services from these type of plant will be important for provision of other system services). Depending on the results of the analysis, there may be an opportunity to bring a greater number of potential solutions than was previously envisaged through to Phase 2 for more detailed analysis.

Industry Perspective - Tony Hearne (ESBN)

- Tony Hearne gave a presentation on some of the work carried out as part of the TSO-DSO Implementation Project strand of the RoCoF Implementation Project.
- This presentation specifically outlined the current progress on Loss of Mains (LoM) Protection setting changes.
- It was noted that a G10 questionnaire was sent out on the 6th June 2014 to wind generators in order to confirm existing records and instruct a change to a number of different settings.
- TH encouraged the wind industry to respond to this questionnaire as soon as possible.
- CD stated she would encourage IWEA members to respond.

Discussion:

- There was a lengthy discussion around the Alternative Solutions Project and the process of selecting viable options from Phase 1 to bring forward to Phase 2.
- It was stated that the 'locational' element of any proposed solution may be important (whether for RoCoF or all System Services) and consideration should be given to this aspect in the initial Phase 1 assessment.
- Instead of conducting a cost-benefit analysis, the TSOs propose to determine the benefits that each technology type would provide to the system (i.e. in terms of system inertia). This was welcomed by Advisory Council members. Concern was raised however that without an assessment of capital and other costs (i.e. with the aim of determining overall cost to the consumer), it would not be possible to select "winners and losers". LF pointed out that several technologies are likely to be required.
- It was requested that a RoCoF Alternatives procurement process or commercial workstream be kicked off immediately in parallel with the Generator Studies Project and the TSO-DSO Implementation Project. PB responded that many proposed developments will have to wait for the DS3 System Services and Capacity auctions to take place anyway for their business cases.

Action Item

8. TSOs to provide status update on RoCoF Alternatives Project at the next Advisory Council. This should include:
    - Status Update on technology assessment
    - Indication on which technologies are likely to proceed to Phase 2 **(TSOs)**

System Services:

- Robert O'Rourke of the CER gave a presentation on the recent System Services high level procurement design decision which was published on 19/12/2014.
- He outlined the extensive work carried out by both the TSOs and the RAs and stated the need to balance the benefit to the consumer and certainty to the investor.
- The high level design was outlined which consists of an interim tariff until Q4 2016 and a phased transition from regulated tariffs to a competitive auction by Q4 2017. The annual expenditure will increase from 2016 and will be capped at €235m in 2020.
- Sam Matthews gave a brief overview on the TSOs' thoughts on the decision.
- It was noted that consultation will be a key element of the process and the TSOs would request input form the Advisory Council on the methodology of these consultations.

Discussion

- The decision on System Services was broadly welcomed by the Advisory Council; however a number of issues were also raised.
- As per the previous Advisory Council meeting, concern was raised that there is still insufficient certainty and that there will be insufficient time to facilitate System Service investment.

- It was suggested that without further certainty and given the time necessary to build or retrofit certain plant, provision of services by new plant will not likely take place before mid-2018. A one year tariff is not enough to allow for upgrades to existing plant.
- The RAs cited the interim tariff as a prompt to encourage early investment.
- The RAs noted that as there is still uncertainty around I-SEM and other projects and if a tariff is not getting enough interest, there would be a review to ensure that the adequate level of service provision is met.
- PH stated that plant that only provides services, not energy or capacity, could begin to build straight away.
- Advisory Council members requested that Programme Plans for the implementation of the project be published as soon as possible.
- There was an in-depth discussion around the 'pre-qualification' process and the stage that a project would have to be at in order to be considered. It was noted that the key criteria in the 'pre-qualification' process is deliverability of the service.
- Advisory Council members requested that consultations on scalars and other consultations be expedited if at all possible.
- PF raised concern that the decision is not compatible with the Demand Response business model and raised concern around the auction and the length of contracts.
- CS queried whether there was scope to bring forward the competitive auction.

Action Item

9. TSOs and RAs to publish work plan by the end of Q1 2015 for the System Services Implementation project. **(TSOs/RAs)**

High Wind Reports 2014 H1:

- Séamus Power gave a presentation on the All-Island High SNSP Reports 2014 for H1 (the first half of 2014). These reports take instances of high wind and conduct offline tests to investigate:
    - Voltage stability
    - Frequency Response
    - Transient stability
- The reports reinforced that if the RoCoF Operational Limit is maintained, there is unlikely to be any major frequency stability issues on the island. However, the results suggested that there may be times (low inertia, large infeed) where there may be a requirement for more fast-acting reserve.
- It was suggested that a sensitivity study on fault ride-through settings and levels of active and reactive power response from wind farms could be beneficial.
- Next steps presented include:
    - Continue to validate and tune all models
    - Investigate the current fast frequency response requirement of the system
    - Add a sensitivity with increased wind and SNSP percentage.

High Wind Speed Shutdown Report 2013:

- Séamus Power gave a presentation on the High Wind Speed Shutdown Report 2013.
- The report analysed 49 events when High Wind Speed Shutdown was experienced.
- Findings of the report concluded that:
    - The current Operation Policy to assume the 50% of wind generation in affected areas disconnect was prudent
    - A number of High Wind Speed Shutdown and Wind Speed signals do not function correctly
    - Wind turbines performance varies
    - Turbine type and location affect high wind speed shutdown

Discussion

- It was suggested by Advisory Council members that the prevailing wind direction at each wind farm at the time of a high wind speed shutdown event should be analysed as this may lead to predicting a more accurate response than wind speed alone.

Action Item

10. TSOs to include correlation of the wind speed of individual WFPSs and prevailing wind direction of these farms when assessing HWSSD. **(TSOs)**

Recent Operational Experience:

- Tom McCartan gave a presentation on Recent TSO Operational Experiences.
- This included a look at a recent system incident which were experienced on 26/12/2014 and some system statistics specifically around the increase in high wind generation.
- It was confirmed that this incident took place when there was low levels of wind on the system.

Action Item

11. TSOs to give an update at the next Advisory Council on the system incident which was experienced on 26/12/2014. **(TSOs)**

AOB:

- It was suggested bringing forward the next Advisory Council by two months as there are a number of key developments in the DS3 Programme in the coming months which will require discussion and input. This was welcomed by the Advisory Council members.

Action Item

12. TSOs to consider scheduling the next Advisory Council for the end of March/early April. **(TSOs)**