DS3 Programme Advisory Council Meeting Minutes

Date: 22/09/2015
Time: 10:30 – 15:30
Venue: Radisson Blu Hotel, Belfast.
Chair: Louis Fisher

Attendees:

Name	Surname	Organisation
Rodney	Ballentine	NIE
Ruth	Buggie	SEAI
Kevin	Chan	Alstom
Bernie	Comey	DCENR
Michael	Conlon	DIT
Joe	Duddy	RES
Paddy	Finn	Electricity Exchange
Vandad	Hamidi	National Grid UK
Carsten	Junge	GE
Andrew	McCorriston	UREGNI
Patrick	Mohr	NTMA
Mark	McGranaghan	EPRI
Robert	O'Rourke	CER
Gráinne	O'Shea	ESB
Donal	Smith	Independent Consultant
Peter	Thomas	Nordex
Robbie	Aherne	EirGrid
David	Cashman	EirGrid
Louis	Fisher	EirGrid
Eoin	Kennedy	EirGrid
Philip	O'Donnell	EirGrid
Séamus	Power	EirGrid
Sam	Matthews	SONI
Eoin	Sweeney	EirGrid

Apologies:
Peter Harte

Industry Perspective

- Louis Fisher introduced three new members to the Advisory Council. Each member gave a brief update on their background.
- Mark McGranaghan (EPRI) gave an overview of EPRI and its research focus on flexibility and integration of renewables. Topics presented included wind/PV modelling and protection

DRAFT

impacts of inverter-based wind/PV, tools and metrics for system flexibility, and developments in North America towards integrating the customer.

- Kevin Chan (Alstom) summarised his own working experience as well as outlining some of Alstom's activities which are related to the DS3 Programme.
- Patrick Mohr (NTMA) described the mandate of the Ireland Strategic Investment Fund (ISIF) and how the DS3 Programme is perceived from the finance/investment industry. Patrick stressed that investors need rules and certainty in the DS3 System Services procurement process.

DS3 Programme Update

- Robbie Aherne gave a general status update on the DS3 programme and the main developments since the last DS3 Advisory Council.
- The TSOs confirmed that they will be conducting a system trial where the SNSP limit will be increased to 55%. The trial builds on the policies and tools which have gone through the Operational Policy Review Committee in the last 18 months. During the trial, the TSOs will conduct analysis after instances when SNSP goes above 50%. Following the trial a decision will be made, based on this analysis, whether or not to increase the SNSP limit to 55% on a permanent basis.
- The Advisory Council welcomed the trial as it represented the first tangible output of DS3.
- The TSOs stressed that, following the above trials, this avenue for increasing SNSP would be exhausted and the focus of the programme remains on delivering RoCoF and System Services and all the necessary policies and tools.
- An update was provided on reports which have gone or are in the process of going through the Operational Policy Review (OPR) process e.g. EWIC Export study, Over Frequency Scheme study, Busbar Rating Monitoring report, Voltage Dip Induced Frequency Dip study.
- The TSOs have developed a cutting edge Automated Dynamic Studies Tool which is now operational and has significantly increased the efficiency and speed at which studies can be completed.
- A brief update was provided on the work which is currently being done as part of the TSOs-DSOs Engagement Process on the Nodal Controller Pilot Project in Cauteen. The project has the potential to avoid transmission network reinforcement by realising the potential of the reactive power capabilities of Distribution connected generation.
- It was noted that Demand Side Management, and in particular total Demand Side Unit capacity, is rapidly growing in Ireland and Northern Ireland.
- The TSOs have developed a solution to the current 300MW EWIC export limit due to a high frequency limit on the island. Discussion on this issue took place under the 'Over Frequency Scheme' agenda item, which is reported later in these minutes.
- An update on the tools which have recently been completed or are in the process of being implemented were discussed. These include the ramping tool, the short circuit tool and the EMS integration project.

Action Items

1. TSOs to investigate if regular data (e.g. hourly) for the total system inertia can be published on the EirGrid website in a similar manner to the frequency data **(TSOs)**

Actions from the Last Meeting

- Robbie Aherne went through the actions from the last meeting and closed out any actions which required an update.
- It was agreed to carry over two actions (number 3s and 4 below) to the next meeting as they remained outstanding.
- There was a short discussion on the impact of the Network Codes on the DS3 Programme. While the TSOs felt there were already sufficient forums where these discussions could take place, it was agreed that this would be considered as an agenda item in advance of the next DS3 Advisory Council.
- There was confusion whether or not it was agreed at the last meeting of the DS3 Advisory Council whether a representative for embedded generation would be added to the Advisory Council. The TSOs agreed to clarify the matter.

  Post Meeting Note: The following action was taken from the minutes of the last Advisory Council meeting '*TSOs to follow up with adding representatives from Conventional Generators and a representative from the Banking and Finance industry'*

Action Items

2. TSOs to consider adding an agenda item for the next DS3 Advisory Council to discuss the impact Network Codes will have on the DS3 Programme. **(TSOs)**
3. Gráinne O'Shea to email original ESB comments on the aforementioned reports which highlight high RoCoF and significant frequency events on the system. **(Gráinne O'Shea)**
4. Kenneth Matthews to draft a letter in response to the Governments white paper consultation highlighting the importance of DS3 and forward this letter to Robbie Aherne to circulate to the Advisory Council **(Kenneth Matthews)**

RoCoF:

Generator Studies Project

- David Cashman provided an update on the RoCoF implementation project including the overall project timelines. It was noted that all generators are progressing their studies.
- The CER recently published a quarterly update and all generators are on track to conclude their studies by May 2016.
- The TSOs are currently investigating implementing a RoCoF remuneration mechanism. It is envisaged that a six week consultation will be issued on the proposals before the year end.
- Gráinne O'Shea noted that the costs of completing the Generator Studies have increased substantially and that OEM engagement has been difficult in many cases.

TSO-DSO Implementation Project

- In Ireland, ESBN completed frequency injection bench testing of RoCoF relays and a database of distribution connected settings was compiled. In June 2014 ESBN wrote out to the wind industry requesting a change in the protection settings and responses have been slow to date.

- In Northern Ireland, it was noted that RoCoF project timelines for settings changes were revised based on NIE projections. A database of settings for distribution connected wind generation has been compiled and work is ongoing to obtain embedded generation settings and volumes.
- Rodney Ballentine gave an update from NIE and explained that a consultation was issued on 11/09/2015 in relation to the D-Code RoCoF modification and will be open for comment for three months. It was also outlined that NIE are waiting on the results of a study which will be undertaken by the University of Strathclyde before requesting changes to protection settings in Northern Ireland.

RoCoF Alternative / Complementary Solutions Project

- David Cashman provided an update on the Alternative / Complementary Solutions Project.
- The TSOs published the final DNV GL Phase 1 report along with a TSOs' briefing note which concluded Phase 1 of the project. The report concluded that both synchronous and non-synchronous devices have the ability to prevent or mitigate high RoCoF events. The key factor in the ability of non-synchronous devices to provide RoCoF mitigation is the timely detection of events.
- The Advisory Council requested that the TSOs publish industry responses to the Phase 1 report if the appropriate permission was granted.
- David Cashman clarified that the objective of Phase 2 of the Alternative / Complementary Solutions Project was to conduct more detailed studies to determine the extra volume of synchronous and/or non-synchronous inertia to maintain a RoCoF limit of 0.5 Hz/s while allowing SNSP move to 75%. The studies are not aimed at determining System Services volumes.
- Robert O'Rourke stated that plan A is still to move the RoCoF limit to 1 Hz/s over 500 ms. The RoCoF Implementation Project was deliberately structured so that the Phase 2 report of the Alternate/ Complementary Solutions Project will be completed before the priority one generators have their studies complete. This will allow for a go/no-go decision to be made on the RoCoF issue.

Action Items

5. TSOs to publish industry responses to the Alternative / Complementary Solutions Phase 1 report if the appropriate permission was granted. **(TSOs)**

System Services:

- Eoin Kennedy provided an overview on the progress since the publication of the project plan. The TSOs have engaged external professional assistance to assist with development of the principles and methodologies for how various technical aspects of the market arrangements will work, for example, regulated tariff model, detailed auction design, payment scalars. This work is expected to be completed by October.
- External legal experts are providing the TSOs with a legal opinion as to the most appropriate procurement strategy to lawfully and successfully deliver the required DS3 Systems Services contracts
- Work is also on going on the development of volume calculation methodology. The approach to the workstream is a consultation paper on the portfolios and the calculation methodology.

Studies to determine volumes will be conducted post consultation and the plan is to for a follow up consultation on the results of the studies.

- The TSOs are close to deciding on an auction design option which is consistent with the framework set out by the SEM Committee. The final auction design report is expected to be provided to the RAs in October.
- The Advisory Council requested greater clarity on what will be needed in order to participate in an auction. The lack of clarity could potentially effect investment. The RAs stated that it is hoped that more clarity will be communicated to the industry in the coming months. While acknowledging the complexity of the decision, the RAs reinforced that the SEMC decision was made to maximise the benefit for the final consumer.
- Carsten Junge noted that while the wind industry in general is capable of delivering certain system service products, the lack of clarity on the commercial and economic pieces of System Services means that the business case is lacking, hence detailed development and testing and thus clear compliance statements are put on hold until such a complete business case can be defined.
- Eoin Kennedy provided an overview of the planned consultations out to March 2016. Detailed timelines for post-March 2016 deliverables are currently being developed and will be published in December 2015.
- In response to an Advisory Council member, Andrew McCorreston advised that enduring tariffs are not an option and auctions are a requirement due to the European Efficiency Directive.

Risk Workshop

- The TSOs facilitated a risk workshop to capture and assess risks which may impact on the ability of the DS3 Programme to deliver its objectives.
- After the risks identified from the 2014 risk workshop were voted on there was a call for new risks which were not yet on the risk register. A new risk on the complexity of System Services was added to the risk register. There was a short discussion on a risk which was sent to the TSOs relating to the RoCoF Alternatives inability to procure until late 2017. The Advisory Council agreed that this risk was essentially captured under the existing RoCoF risk which was voted on.

EWIC Export Study

- Séamus Power presented the EWIC Export study.
- The study was completed using the Automatic Dynamic Studies (ADS) tool and Séamus gave a brief overview of how the tool works and the benefits it has for the TSOs.
- The purpose of the study was to examine the frequency stability of the Ireland and Northern Ireland system after the loss of EWIC on a medium to high export.
- Due to the large volume of existing wind generation which has an over frequency trip setting at 50.5 Hz or 50.8 Hz, the study concluded that the current maximum EWIC export of 300 MW is appropriate. This limit will remain in place until the over frequency trip settings on WFPS are changed as per the Over Frequency Scheme described below.

Over Frequency Scheme

- Eoin Sweeney presented the Over Frequency Scheme study.
- The purpose of the study was to produce an over frequency scheme for the Ireland and Northern Ireland power system to cater for a system separation event or the loss of an interconnector exporting up to 500 MW.
- By staggering the over frequency trip settings, generation on the island can be tripped in a controlled manner in order to mitigate against high frequency events and allow EWIC to export to its full capacity.
- The TSOs have already kicked off a project, involving both ESBN and NIE, to change the over frequency trip settings. The success of the project is dependent on the timely response from industry.

AOB:

- A Doodle poll with dates for next year's DS3 Advisory Council meetings will be circulated with the minutes of this meeting. Following this, invitations for the next three meetings will be issued.