DS3 Programme Status Update

17th January 2014

- A major replanning of the DS3 Programme is close to conclusion. This will result in an update of the workstream plans and a revision of the current list of deliverables.
- At the request of the SEM Committee, the TSOs are currently carrying out further economic analysis on the proposed new System Services.
- On 20/12/2013 the SEM Comittee published a Decision paper on System Service product definitions.
- The CER and URegNI have indicated that their decisions on the RoCoF Grid Code modifications will likely be announced in February.
- The 2013 Annual Renewable Report was launched by Minister Pat Rabbitte and Fintan Slye on 28/11/2013.
- The third meeting of the TSO-DSO Joint Working Group will take place on 20/01/2014 – the focus will be engagement on voltage control, performance monitoring, RoCoF and demand side management.
- DSU Joint Grid Code Working Group meetings took took place on 20/11/2013 and 23/01/2014 - here Grid Code modifications in relation to DSUs that will support large-scale deployment and a medium- to long-term solution were discussed.
- The TSO-DSO DS3 Joint Oversight Committee meeting (director-level) took place on 17/01/2014. It is anticipated that the TSO-DSO Engagement Strategy will be finalised and signed off at this meeting.

Status

Workstream	Commentary
Communications	• The following is a summary of recent DS3 presentations: ○ IWEA annual conference in Galway on 03/10/2013 ○ Cigre Conference in Cape Town on 07/10/2013 ○ European Utility Week in Amsterdam on 16/10/2013 ○ Wind Integration Workshop in London on 22/10/2013 ○ EirGrid Group Customer Conference on 31/10/2013 ○ Cigre Irish National Committee event in Dublin on 02/12/2013 ○ UCD ERC presentation on 10/12/2013 • On 28/11/2013 Minister Pat Rabbitte, Fintan Slye and Jon O'Sullivan presented at the launch of the Annual Renewable Report 2013 in Dublin.There were approximately 50 attendees from across the industry.
System Services	• At the request of the SEM Committee, the TSOs are currently carrying out further economic analysis on the proposed new System Services. To this end, there have been a number of meetings between representatives of the RAs and the TSO to agree scope and objectives. • EirGrid gave an overview of the direction of this analysis to the SEM Committee on 19/12/2013. • On 20/12/2013 the SEM Committee published a Decision paper on System Service product definitions.
RoCoF	• The URegNI consultation on their proposed RoCoF decision closed on

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	27/09/2013. • The TSOs have engaged with the RAs on the proposed RoCoF implementation project. • The CER and URegNI have indicated that their decisions on the RoCoF Grid Code modifications will likely be announced in February.
Grid Code	• The Ireland Distribution Code modifications for the improved WFPS capabilities were approved on 08/10/2013 and subsequently sent to the CER for consideration. • An Ireland Distribution Code modification on RoCoF was proposed and approved by the panel at the meeting on 03/12/13. This has been sent to the CER for consideration. • The Guidance Notes for DS3 WFPS modifications were finalised and submitted to the Ireland Grid Code Review Panel for review on 04/12/2013. • The Dynamic Models modifications, along with the supplementary documentation on validation, retrospection, EMT models and software formats, were presented to the Ireland and Northern Ireland Grid Code review panels on 04/12/2013. The modification was not approved in Ireland and will be discussed at the next Grid Code Review Panel (GCRP) meeting on 12/02/2014. In Northern Ireland a consultation on the modification has been opened. • Two housekeeping modifications were tabled at the GCRP to clarify the WFPS DS3 modifications. The modifications were both approved in principle by the GCRP. A further modification may be required for the frequency response section. This is to be considered in advance of the next GCRP meeting on 12/02/2014.
DSM	• The Ireland Grid Code DSU modification was approved by the CER on 24/09/2013. • There was continued engagement with the CER on the National Smart Metering Programme. EirGrid had a bilateral meeting with the CER on the re-scoping of the Smart Metering CBA on 15/01/2013 and is currently formulating a response to the CER Smart Metering High Level Design consultation. • A review of the existing GASOA (Generator Aggregator System Operator Agreement) from an Ireland and Northern Ireland perspective is currently underway. • A paper on the potential for DSU/AGU contribution to System Services (existing and proposed) is currently being drafted by the TSOs. • The first DSU Joint Grid Code Working Group meeting was held in Dundalk on 20/11/2013. EirGrid presented a new proposal for performance monitoring of Dispatch Instructions – feedback was broadly positive. This proposal and other areas of the Grid Codes requiring modification will be discussed at the second meeting which will take place in Dundalk on 23/01/2014.
Voltage Control	• The first meeting of the NIE, ESBN and EirGrid/SONI TSO-DSO DS3 Joint Working Group took place on 24/10/2013. This group will consider all aspects of TSO-DSO interaction under the DS3 Programme including Voltage Control, RoCoF, Demand Side Management and Enhanced Performance Monitoring. Subsequent meetings took place on 29/11/2013 and 20/01/2014. • The TSO-DSO DS3 Joint Oversight Committee meeting (director-level)

	took place on 17/01/2014. It is anticipated that the TSO-DSO Engagement Strategy will be finalised and signed off at this meeting.
Frequency Control	• Lisa Ruttledge, a UCD PhD student, commenced a study on over-frequency response, including proposing over-frequency trip settings of some generators. It is anticipated that this study will be completed in February 2014.
Control Centre Tools & Capability	• Initial validation of the EMS short circuit tool have highlighted some discrepancies in the modelling results. Further investigations are currently underway. • Alstom provided a demonstration of the Beta version of the Wind Dispatch Tool during the EMS Factory Assessment Test (FAT) that took place from 02/12/2013 to 06/12/2013. The SCADA element of the EMS was tested during the FAT. There were no major issues. • The TSOs are currently investigating how inertia could be modelled in RCUC.
Model Development & Studies	• An all-island study is currently underway to determine the future levels of reactive power compensation required on the power system. This study is due to be completed in Q3 2014. • Internal discussions have taken place regarding the development of metrics for assessing system security and stability. A matrix is currently being compiled and the aim is to develop metrics which may in time replace the SNSP metric. • The All-Island Minimum Generation studies were completed in December and the results are currently being reviewed. • Tuning of settings of the new generic wind farm models for WSAT is currently underway using PMU data on wind farm response to real system events. For wind turbine types with no PMU data available the models will be tuned based on the PSS/E models. These will be used in the ongoing high wind studies from Q1 2014 onwards.
WSAT – Wind Security Assessment Tool	• A two dimensional power transfer concept was developed and tested in VSAT. Analysis indicated computing time currently precludes its use in real-time WSAT. • Validation of dynamic models using PMU data is currently underway – this high resolution data will significantly help in validating and tuning models as necessary.
Renewable Data	• The Annual Renewable Report 2013 was launched by Minister Rabbitte and Fintan Slye in Dublin on 28/11/2013. • EirGrid provided input to the DCENR on the 2nd National Renewable Energy Action Plan update report – this is expected to be released in early 2014. • The first quarterly constraint and curtailment report is due to be published on 21/01/2014. • The All-Island Renewable Connection Reports - 36-Month Forecast for Q3 and Q4 will be published on the EirGrid website in January.
Performance Monitoring & Testing	• Work is progressing on the Enhanced Performance Monitoring system. Currently, the focus is on developing a system which monitors existing Grid Code and AS Agreement requirements. • A draft Enhanced Performance Monitoring DSO/TSO engagement plan was presented to the DSOs at a meeting on 24/10/2013. The DSOs were positive about the proposal and both ESBN and NIE approved the high level principles outlined in the plan. Further meetings are currently being

	organised. • An internal workshop was held to scope out the high level performance monitoring requirements for System Services.