



# DS3: Renewable Data Workstream

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## **CONTEXT**

Meeting the 40% renewable electricity targets in Ireland and Northern Ireland will require System Operators to manage the power system with increasing amounts of variable non-synchronous renewable generation. In fact, as a percentage of system size, the island of Ireland will have one of the highest levels of wind generation in the European Union.

As the level of variable non-synchronous renewable generation increases year-on-year, EirGrid and SONI need to have sufficient clarity as to how this development is impacting on the characteristics of the power system. The purpose of the renewable data workstream is to develop a repository for renewable-related data for the EirGrid Group and to produce and publish a range of internal and external reports that capture this development.

## **OBJECTIVE**

The overall objective of this workstream is to develop a detailed library of information associated with the integration of renewable generation on an all-island basis. This information will feed in to a range of internal reports and external publications – both technical and non-technical. By necessity, the range of information required is broad and therefore cuts across the EirGrid Group; however, it can be broken into three general areas covering:

- a) Operational Policy
- b) System Records
- c) Renewable Outlook

This workstream acts to reinforce the implementation of the DS3 programme by providing information to different stakeholders, both internal and external, to support key decisions. The majority of this information is for internal use only and is designed primarily to help inform the development of Control Centre operational policies and tools.

While the specific outputs from this workstream will evolve, the main reports deemed important at this stage have been captured.

## **WORK COMPLETED IN 2012-2013**

The following list is a selection of the main reports completed during 2012-2013:

- Annual Renewable Report 2012 and 2013
- Weekly Wind Reports
- High Wind Reports
- Monthly All-Island Wind and Fuel Mix Reports
- Curtailment Reporting
- All-Island Renewable Connection Report – (36-Month Forecast)

## **FOCUS AREAS FOR 2013-2015**

The integration of increasing levels of renewable generation continues to revolutionise the electricity landscape across the island. As the TSOs are operating on an all-island basis, EirGrid and SONI are helping develop many of the necessary solutions to facilitate this paradigm shift and help fulfil energy policy obligations in Ireland, Northern Ireland and the European Union. The introduction of increasing amounts of non-synchronous variable renewable generation means that System Operators face increasing levels of complexity in the safe operation of the power system. In this context, the following are key focus areas for 2013-2015:

- Maintaining the overall level of report publications
- Publication of the 2014 and 2015 Annual Renewable Reports
- Completion of the All-Island High Wind Speed Shutdown reports
- Publication of the first and subsequent Quarterly Constraint and Curtailment Reports
- Working with the appropriate government departments on the continuous update of the National Renewable Energy Action Plan (NREAP)
- Continuing to inform and enable the development of Control Centre operational policies and tools

## HIGH-LEVEL PLAN

TASK NO.	TASK / DELIVERABLE	PURPOSE	RESPONSIBLE	DUE DATE
<b>Operational Policy (Internal Use Only)</b>				
RD.1.1	High Wind Reports (after events where SNSP exceeds 45%)	All reports feed into the Frequency Control and Voltage Control work streams, and general renewable portfolio management.	TSOs	Ongoing
RD.1.2.1	High Wind Reports 6 Monthly Report (to end Q2 2013)		TSOs	Complete
RD.1.2.2	High Wind Reports 6 Monthly Report (to end Q4 2013)		TSOs	Q1 2014
RD.1.2.3	High Wind Reports 6 Monthly Report (to end Q2 2014)		TSOs	Q3 2014
RD.1.2.4	High Wind Reports 6 Monthly Report (to end Q4 2014)		TSOs	Q1 2015
RD.1.2.5	High Wind Reports 6 Monthly Report (to end Q2 2015)		TSOs	Q3 2015
RD.1.3.1	2012 High Wind Speed Shutdown Report		TSOs	Complete
RD.1.3.2	2013 High Wind Speed Shutdown Report		TSOs	Q3 2014
RD.1.3.3	2014 High Wind Speed Shutdown Report		TSOs	Q3 2015
<b>System Records (External unless otherwise noted)</b>				
RD.2.1	Weekly Wind Reports ( <b>Internal</b> )	The information in these reports will be collected and analysed to inform the development of Control Centre policies and tools	TSOs	Weekly
RD.2.2	All-Island Wind and Fuel Mix Reports		TSOs	Monthly
RD.2.3.1	2012 Annual All-Island Wind and Fuel Mix Summary		TSOs	Complete
RD.2.3.2	2013 Annual All-Island Wind and Fuel Mix Summary		TSOs	Q1 2014
RD.2.3.3	2014 Annual All-Island Wind and Fuel Mix Summary		TSOs	Q1 2015
RD.2.4	Wind Records Repository ( <b>internal</b> )		TSOs	Ongoing
RD.2.5.1	2013 Curtailment Report	This report fulfils the requirement of EU Renewable Directive (2009/28/EC) and SI 147 in Ireland	TSOs	Q1 2014
RD.2.5.2	2014 Curtailment Report		TSOs	Q1 2015
RD.2.6	Agree format of Quarterly Constraint and Curtailment Report	This report fulfils the requirement of SEM-13-012	TSOs / RAs / Industry	Complete
RD.2.7.1	Q1 2013 Quarterly Constraint and Curtailment Reports		TSOs	Q1 2014
RD.2.7.2	Q2 2013 Quarterly Constraint and Curtailment Reports		TSOs	Q2 2014
RD.2.7.3	Q3 2013 Quarterly Constraint and Curtailment Reports		TSOs	Q3 2014
RD.2.7.4	Q4 2013 Quarterly Constraint and Curtailment Reports		TSOs	Q4 2014
RD.2.7.5	Q1 2014 Quarterly Constraint and Curtailment Reports		TSOs	Q1 2015

RD.2.7.6	Q2 2014 Quarterly Constraint and Curtailment Reports		TSOs	Q2 2015
RD.2.7.7	Q3 2014 Quarterly Constraint and Curtailment Reports		TSOs	Q3 2015
RD.2.7.8	Q4 2014 Quarterly Constraint and Curtailment Reports		TSOs	Q4 2015
<b>Renewable Outlook</b>				
RD.3.1	All-Island Renewable Connection Report – 36-Month Forecast	Designed to provide an overview of wind farm developments expected to connect over the coming years.	TSOs	Quarterly in arrears
RD.3.2	TSO contribution to the National Renewable Energy Action Plan (NREAP)	Feed into Ireland NREAP with data on grid development, renewable trajectory, operational studies and administrative information related to renewable integration.	DCENR	Complete
RD.3.3.1	2013 Annual Renewable Report	Provide a high-level assessment of the current status, on-going work and future developments in the Renewable electricity space in Ireland and Northern Ireland.	TSOs	Complete
RD.3.3.2	2014 Annual Renewable Report		TSOs	Q4 2014
RD.3.3.3	2015 Annual Renewable Report		TSOs	Q4 2015