



Tailoring Seasonal Climate Forecasts for the Utility Sector

National Meeting organised by the History of Meteorology and World Energy & Meteorology Council

ECMWF, Shinfield Park, Reading, RG2 9AX
Wednesday 18th May 2022, 14:00 – 17:30

Abstract

The complex and interconnected nature of the energy industry across extraction, transportation, processing, production and decommissioning creates significant challenges to how this sector responds and adapts against climate variability, and change.

A number of projects – including EU H2020 such as SECLI-FIRM, S2S4E and CLARA – have used the latest climate science, and the related seasonal climate forecasts, to understand and, critically, anticipate the adverse impact of severe climate events for energy planning and operations. The link between climate and energy is very clear for renewable sources such as wind, solar and hydropower and for electrical transmission systems. While it is less obvious for more traditional energy sources they can nonetheless be severely impacted by extreme climatic events (e.g. heat waves for thermal power plant production). In addition, energy demand also varies strongly with meteorological conditions. Climate information, such as seasonal climate forecasts, is still seen as highly uncertain and with a low accuracy. While this may be true in an average sense, a lot of work is currently being undertaken, particularly by the EU H2020 The Added Value of Seasonal Climate Forecasting for Integrated Risk Assessment (SECLI-FIRM) project and C3S Energy operational service, in order to try to understand how value can be extracted from climate information so that confidence can be built for energy companies to operationally adopt the use of this information.

This meeting will review the science of seasonal forecasting, the availability and use of its products, and present how this information is used by the energy and water industries. A discussion forum will also be held at the end as a way to take stock of lessons learnt during the meeting, and to allow participants to quiz talk presenters.

This meeting can be regarded as an update of the 2006 RMets meeting <https://www.rmets.org/events/forecasting-uk-and-european-winters> – how have things progressed over the last 13 years. There would be benefits to academia, operational forecasting and industry to host a joint meeting on advances in seasonal forecasting since the meeting in 2006 with a particular focus on the impacts and use on the energy sector.

13.30	Registration, Tea and Coffee	
14.00	Welcome	Prof Liz Bentley, FRMetS, CEO RMetS
14.10	Introduction	Prof Alberto Troccoli, WEMC
	Session 1: Chair: Mr Shanti Majithia, Energy & Climate Advisory	
14.20	Copernicus multi-model seasonal forecasts: their production and evaluation	Dr Anca Brookshaw, ECMWF
14.50	The Use of Seasonal Forecasts by the National Grid ESO	Dr Daniel Drew, UK National Grid
15.10	Seasonal forecasting for offshore operation	Mr Jon Upton, Shell
15.30	Refreshment Break	
	Session 2: Chair: Dr Mark Rodwell, ECMWF	
16.00	Use of Sub-Seasonal Forecasting in the Water Industry	Mr Ian Savage, Thames Water
16.20	Tailoring seasonal climate forecasts for the energy industry	Dr Jess Aimes, Met Office
	Session 3: Chair: Prof Alberto Troccoli, WEMC	
16.50	Panel Session/Discussion Forum with all speakers	
17.30	Meeting Close	

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This meeting is part of the Royal Meteorological Society National Meetings programme, open to all, from expert to enthusiast, for topical discussions on the latest advances in weather and climate. Non-members are welcome to attend these meetings.