Seminar by Dr Holttinen

Date and Time: Friday 27th of January at 2:30-3:30 pm

Venue: Room 135 Engineering and Materials Science Building

Title: Flexibilities in energy system to support variable generation integration

Abstract

International work at IEA WIND Task 25 is highlighted regarding variable generation (VG) integration and flexibility needs. IEA WIND Task 25 is an international collaboration of 18 countries sharing experience and study results on VG integration challenges and mitigation possibilities. A more detailed case of Northern Europe market area for 40 % and 60 % VG share of electricity consumption. This case is studied in Finland national research programme FLEXe (Future Flexible Energy Systems). Heat based flexibilities are studied in detail, and compared with other options like increasing transmission and using electric vehicles charging with flexibility.

Biography the Presenter

Dr Hannele Holttinen is Principal Research Scientist in wind integration group at VTT Technical Research Centre of Finland (MSc in 1991, PhD in 2004, Helsinki Technical University). She has worked for VTT for more than 20 years in different fields of wind energy research including resource assessment and measurements, production and failure statistics as well as offshore and arctic wind power feasibility. Since 2000, her main interest is the impact of wind and PV on power systems and electricity markets. She acts as Operating Agent of the IEA international collaboration on power system operation with large amounts of wind power (IEA WIND Task 25) since 2006. She chaired IEA Implementing Agreement on Wind Energy in 2011-12 , is a member of ETIP Wind platform through EERA co-operation, was active in European Union Wind Energy Platform TPWIND 2007-14 leading Grid integration group and in the Steering committee and was in the steering committee of Nordic TFI program for wind in 2009-14.