



Stanford SmartGrid Seminar

Smart sustainable power systems – examples from European experience and own research

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Abstract: The energy system is in a global development towards a sustainable energy system. Resource efficiency and environmental concerns push towards change into use of renewable energy resources, like wind and solar, and to optimize the energy usage, which would result in reduction in emissions and energy losses. In Europe there have been ambition targets shortly referred as 20/20/20 goals. This presentation will give an introduction to Smart Grid and shows on challenges and possibilities with special focus on the European experience. Examples will be given on recent research results related to smart meters, electrical vehicles and asset management of wind turbines.

Bio: Dr. Lina Bertling Tjernberg is a Full Professor in Power Grid Technology at KTH - the Royal Institute of Technology. She was previously Professor in Sustainable Electric Power Systems at Chalmers University of Technology 2009-2013, and Research Director with the Swedish National Grid 2007-2009. Her research education is from KTH where she became Associated Professor 2008, and completed her PhD in Electric Power Systems in 2002. Her research area is in modernization of the electric power systems – today typically captured in the concept of Smart Grid - with special interest in reliability analysis and maintenance management.

Dr. Bertling Tjernberg is serving as Secretary of IEEE Power & Energy Society (PES) 2014-2015, and is the Chair of the Swedish PE/PEL Chapter.