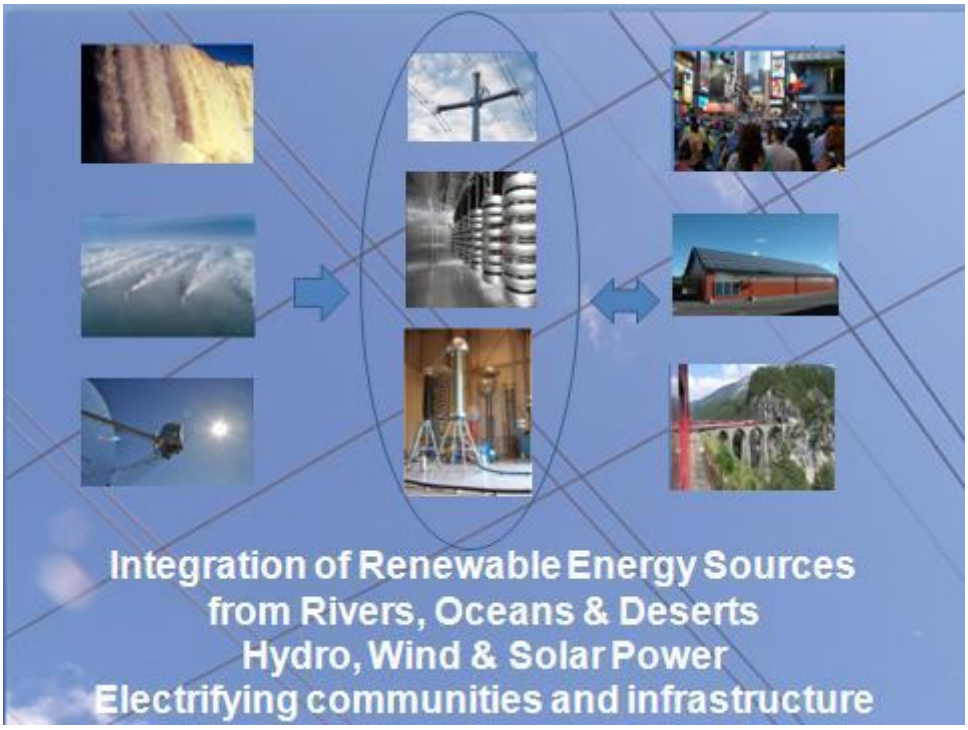
Invitation to ISGAN workshop October 8, 2013 on

"Power to the People!
Enabling Flexible Power Systems"

during an electrifying Scandinavian Smart Grid week in Stavanger, Norway

with optional visit on October 7 to one of Norway's largest hydro power facilities and the converter station for NORNED, the 700 MW HVDC connection to The Netherlands.



The workshop is arranged by International Smart Grid Action Network (ISGAN) http://www.iea-isgan.org/ through Statnett http://www.statnett.no/en/ and the Swedish Energy Agency http://energimyndigheten.se/en/
and hosted by Lyse, http://www.lyse.no/english

Agenda

Monday 7th October 2013 – Visits to power installations	
08:30 – 19:00	Optional visit to Large Hydro facility & NORNED HVDC Departure by bus from Clarion Hotel, Stavanger at 08:30
Tuesday 8th October 2013 – ISGAN Workshop	
08:30 - 09:00	**Departure from Hotel to Lyse**
09:00 - 09:30	**Registration at Lyse, Breiflåtveien 18, Mariero**
09.30 -10:30	**Welcome and introduction** Key note from the Norwegian host (TBD) Michele de Nigris, chairman of ISGAN Bo Normark, Vice Chair Swedish Coordination Council for Smart Grid
10:30- 11:00	**Hydro & wind integration** Jan Alne , Regional Director Senior Vice President, Statkraft
11:00- 11:30	**Refreshments**
11:30 – 12:15	**Nordic Transmission System Development** Jan Ove Gjerde, Senior VP R&D, Statnett Ulf Moberg, Technical Director, Svenska Kraftnät
12: 15 – 12:45	**Harvesting Ocean Wind & Desert Sun Power** Bo Normark, CEO of Power Circle
12: 45 – 13:45	**Lunch**
13:45 – 15:15	**International Perspectives on Smart Grid Integration** -GIVAR - Grid Integration of Variable Resources (IEA/TBD) -TWENTIES - www.twenties-project.eu (Vicente Gonzalez, REE) -Smart T&D development in India (Dr. Subir Sen, General Manager Smart Grid, Power Grid India) -Smart T&D development in South Africa (Dr Minish Bipath, South African National Energy Institute)
15:15 – 15:30	**Refreshments**
15:30 – 16:30	**ISGAN Annex 6 on Smarter & Stronger Power Systems:** -Feasible technologies for enhanced transmission capacity and flexibility -Enabling policies and methods for flexible power delivery systems Presented by ISGAN Annex 6 task leaders; Phil Overholt, DOE, U.S.; Diego Cirio, RSE, Italy ;Carl Ohlen, STRI, Sweden; Kjetil Uhlen, NTNU, Norway
16:30 – 17:00	**Big Data – The information challenge for the future power system** Andy Bhane, Ventyx, U.S.
17:00 – 18:00	**Visions for the future smarter and stronger power system** Panel discussion between speakers and participants from Statnett, Svenska Kraftnät, Statkraft, IEA, REE, RTE, Ventyx, Power Grid India, ESKOM and ISGAN. Moderator Bo Normark
18:00 – 18:30	**Return to Hotel**
Wednesday 9th October 2013 – ERA Net	
08:30 – 18:00	**Optional ERA Net workshop. See separate invitation and information on http://www.eranet-smartgrids.eu/**
19:00 -	**Hosted dinner ???**

ISGAN workshop in Stavanger, Norway October 8, 2013 on
"Power to the People! - Enabling Flexible Power Systems"

The workshop is part of a Scandinavian Smart Grid Week to take place in Stavanger Norway 6th to 11th of October 2013 in association with the ISGAN 6th Executive Meeting and arranged Statnett in Norway and the Swedish Energy Agency together with ERA Net http://www.eranet-smartgrids.eu/

Stavanger was earlier the centre for a region dominated by agriculture, fisheries and shipbuilding. During the last 40 years it has been transformed to an international city due to the development of Norwegian oil and gas resources, but still it has areas dominated by narrow streets and small wooden houses – nice places to walk around. In combination with the workshop there is a possibility to visit one of Norway's largest hydro power facilities and the converter station for NORNED, the 700 MW HVDC connection to The Netherlands. Between Norway, the British Isles and Continent6al Europe there are several offshore wind projects in different phases.

This makes Stavanger an ideal place to discuss energy supply in general and how to "bring more power to the people" with offshore and onshore transmission technology. Integrating new wind energy as well as providing hydro power for balancing and reserves will one of the theme of the workshop but also other International perspectives will be discussed such as harvesting solar power**: "Integration of Renewable Energy Sources from Rivers, Oceans & Deserts from Hydro, Wind and Solar Power – Electrifying Communities and Infrastructure.**

Some words about ISGAN:
International Smart Grid Action Network (ISGAN) is an initiative within International Energy Agency (IEA) and an Implementing Agreement for a Co-operative Programme on Smart Grids. ISGAN was launched as the International Smart Grid Action Network at the first Clean Energy Ministerial (CEM), a meeting of energy and environment ministers and stakeholders from 23 countries and the European Union held in Washington, D.C on July 19 and 20, 2010. ISGAN serves as a mechanism for international cooperation to accelerate the development and deployment of smarter electricity grid technologies and systems around the world. ISGAN has started several international initiatives, structured as "Annexes". One is Annex 6 covering Power Transmission & Distribution Systems" and some of the findings from this work will be presented and discussed during the workshop. To learn more about ISGAN you can down load the ISGAN brochure on http://www.iea-isgan.org/b/Media/834

Motivation and objective:
The planned rapid growth of both distributed and large scale wind and solar power generation will require "smarter" and more powerful transmission and distribution systems, which are able to host the increasing share of renewable energy resources as well as active consumers and new market players. One critical issue is how to handle greater and unpredictable variations in the power system. Electricity is more than 100 years old and how to bring the power to the people has always been a challenge. "The war of the currents" between DC supported by Edison and AC supported by Tesla and Westinghouse was won by AC in the beginning of the last century. But now we see how DC is being used more and more for transmission and more appliances and also PV generation is running on DC. The introduction of Electrical Vehicles and battery storage is other changes today although this was already a reality in New York more than 100 years ago. The development pf Power Electronics with high power thyirstors and transistors together with the application of state-of-the art Information and Communicatation Technology also in power systems offers many new possibilities to mahe the power T&D system stronger and smarter. This is some of the topics to be further discussed during the workshop. We invite all stakeholders to participate in this workshop and contribute to the further work within ISGAN and other similar initiatives of Smart Grids for efficient integration of clean energy.

For more information and registration:
Please contact workshop organizer, professor Kjetil Uhlen kjetil.uhlen@ntnu.no or ISGAN Annex 6 Power T&D Systems Operating Agent, Carl Ohlen to carl.ohlen@stri.se and please use enclosure for registration.