

HydroBalance User Meeting 2016

13-14 September 2016, lunch to lunch

At Norwegian Institute for Nature Research (NINA), NTNU Campus Gløshaugen, Høgskoleringen 9, Trondheim

Tuesday, 13 September at NINA

11.30 - 12.30 Lunch at NINA

12.30 - 13.00 Welcome, introduction and project status

Michael Belsnes, Julie Charmasson, SINTEF Energy Research

13.00 - 15.00 Presentations followed by discussions.

13.00 **WP2 Master thesis: Electricity Markets with Capacity Remuneration including Energy Storage**

Magnus Askeland, NTNU

13.25 **WP1 Grid bottlenecks assessment**

Arnaud Grandjean, EDF France & Hossein Farahmand, NTNU

14.00 - 17.00 Workshop: Environmental and policy aspects of large-scale balancing to Europe

14.00 **WP5 Non-technical challenges for Hydrobalancing from Norway**

Oddgeir Andersen, NINA

14.20 – 14.45 Break

14.45 **WP4 Modelling environmental impacts in reservoirs**

Ingeborg Helland, NINA

15.30 **Large scale exchange and storage meeting environmental concerns: another balancing act**

Svein Skogen, Miljødirektorat

16.00 **Discussion** in plenum

17.00 End of day 1

19.00 Dinner in Trondheim Centre



Wednesday, 14 September at NINA

09.00 - 12.30 Presentations followed by discussions.

09.00 **WP3 Modelling and analyses to develop relevant business models: summary of activities**
Ove Wolfgang, Arild Lote Henden, SINTEF Energy Research

09.30 **WP3 Balancing the European electricity market with Norwegian hydropower**
Paul Koutstaal, ECN, Netherlands

10.00 **Hydropower services, Japan: outlines from IEA work**
Masahiro Oonishi, Takayuki Umezawa, IEA Hydropower Annex 9, Japan

10.20 – 10.45 Break

10.45 **WP2 PhD: Variability of the wind and PV power production i UK and Germany in 2050 - assessment of need for balancing**
Ingeborg Graabak, NTNU

11.25 **Practical examples of how Norwegian Hydro could be an enabler of an enabler of increased RES in North West Europe**
Asbjørn Høivik, Lyse

11.55 **WP1 HydroBalance roadmap: presentation of contents**
Håkon Sundt, SINTEF Energy Research

12.20 **Final word**

12.20 - 13.30 Lunch at NINA

13.30 End of the meeting

Facts about HydroBalance

Title: HydroBalance, Large-scale balancing and energy storage from Norwegian hydropower

Project host: SINTEF Energy Research on behalf of CEDREN

Start: 9-2013

End: 9-2017

Finances: 25 million NOK

Partners: CEDREN Industry Partners, European industry, TSOs, authorities, R&D partners: CEDREN, selected international universities and institutes

Project leader: Michael Belsnes, SINTEF Energy Research

Project Coordinator: Julie Charmasson, SINTEF Energy Research

Website English: <http://www.cedren.no/english/Projects/HydroBalance>

Website Norsk: <http://www.cedren.no/Prosjekter/HydroBalance/>

Work-Packages

WP1	Roadmap for energy balancing from hydropower	Julie Charmasson, <i>SINTEF Energy Research</i>
WP2	Demand for energy balancing and storage	Magnus Korpås, <i>NTNU</i>
WP3	Modelling and analyses to develop relevant business models	Ove Wolfgang, <i>SINTEF Energy Research</i>
WP4	Environmental impacts of new operational regimes	Ingeborg P.Helland, <i>NINA</i>
WP5	Social acceptance and regulatory framework	Oddgeir Andersen, <i>NINA</i>
WP6	Management	Michael Belsnes, <i>SINTEF Energy Research</i>

Tuesday 13th September 19.00

Jossa Restaurant

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