

Agenda NTNU Energy Transition Workshop 7th and 8th November 2017

November 7: The workshop takes place at Lerchendam Gård. See map: <http://bit.ly/2iLtyo1>

08.00-08.30 Coffee and registration

08.30-08.40 Welcome: scope and purpose, Asgeir Tomasgard

08.40-10.00 Mid-century Strategies

- Volker Krey: Climate change mitigation in the context of broader sustainable development objectives
- Asgeir Tomasgard: Towards Zero Emission energy systems
- Ottar Skagen: Statoil's energy scenarios
- Discussion

10.00-10.15 Break

10.00-11.30 Energy Storage Technologies

- Fride Vullum-Bruer: Batteries and hydrogen
- Frank O'Sullivan: MIT Storage project
- Discussion

11.30-12.30 Lunch

12.30-13.45 The demand side and the human factor

- Tomas Moe Skjølvold: Socio-technical energy transitions and the role of (user) practices
- Christian Klöckner: Human dimensions in energy transitions – some examples
- Volker Krey: The 1.5 degree target – the effect of demand side measures
- Discussion

13.45-14.00 Coffee Break

14.00-15.30 Decentralized Prosumer centric Systems

- Magnus Korpås: Market aspects and utility for different roles
- Steven Gabriel: Optimal load-shifting via internet-based thermostat control and sensors for improved residential load management
- Christian Skar: Demand response-effects on the power system
- Matthias Hofmann: How does consumer centric systems affect the power industry in Norway and Europe?
- Mark O'Malley: Integration of natural gas, heat, electricity – Mix of Physics, regulation and policy
- Discussion

15.30-16.30 Maritime transport

- Ingrid Schjøberg: IEA Task 39 Hydrogen in the Maritime
- Anna Ringvold: Environmental assessments of the global shipping fleet
- Questions/ discussion

- 16.30-16.45** **Break**
- 16.45-18.00** **Discussion: research challenges**
- 18.00** **Dinner at Lerchendal Gård**

November 8: The workshop takes place at Rådssalen, NTNU Gløshaugen. See map:
<http://bit.ly/2iMKCdv>

08.00-08.30 **Coffee and registration**

08.30-10.30 **The Role of Natural Gas**

- Asgeir Tomasgard: Intro
- Franziska Holz: Global natural gas markets between climate policy and the renaissance of gas
- Steven Gabriel: The effects of shale gas
- Kjetil Midthun: Natural gas as a flexibility provider
- Lars Nord: What are the technological capabilities?
- Steinar Eikaas: Natural gas and hydrogen: Statoil's perspective

10.30-11.00 **Break**

11.00-11.30 **Discussion: Establishing a Pan European Project**

11.30-12.15 **Lunch**

12.15-12.45 **Funding options**

- Benjamin Smith: RCN funding options
- Discussion and questions

12.45- 14.00 **The future of transportation and its implications for oil and gas markets (suggestion)**

- Introduction: Asgeir Tomasgard
- Steffen Møller Holst: Hydrogen and transport
- Francesco Cherubini: Biofuels and transport
- Hege Rognø: Statoil's perspective
- Discussion also linking to the sessions on batteries and maritime transport

14.00-14.15 **Break**

14.15-15.00 **Discussion: How can we establish projects? Priorities**