

ENERGY AND CLIMATE CHANGE PROGRAMME



The Norwegian Water Resources and Energy Directorate (NVE)
Stakeholder Consultation Zagreb, November 7, 2018

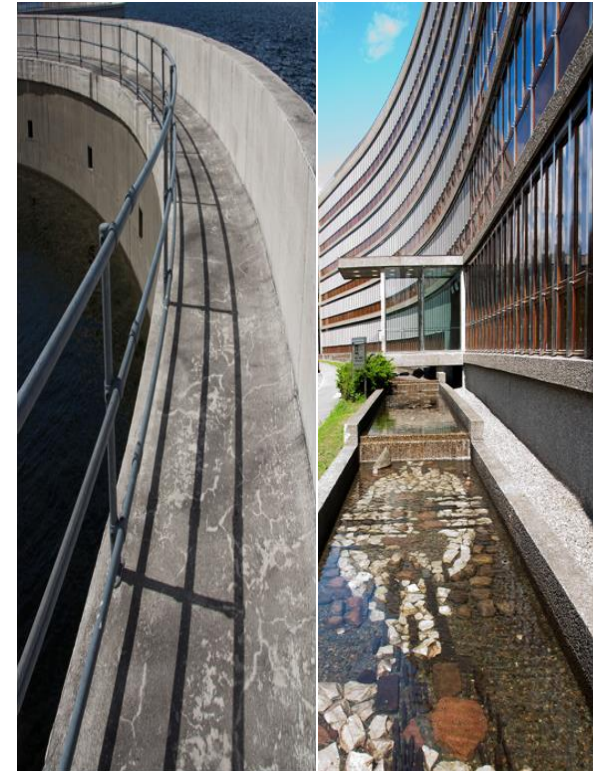
Gunn Oland
Program Director

Mljet National Park

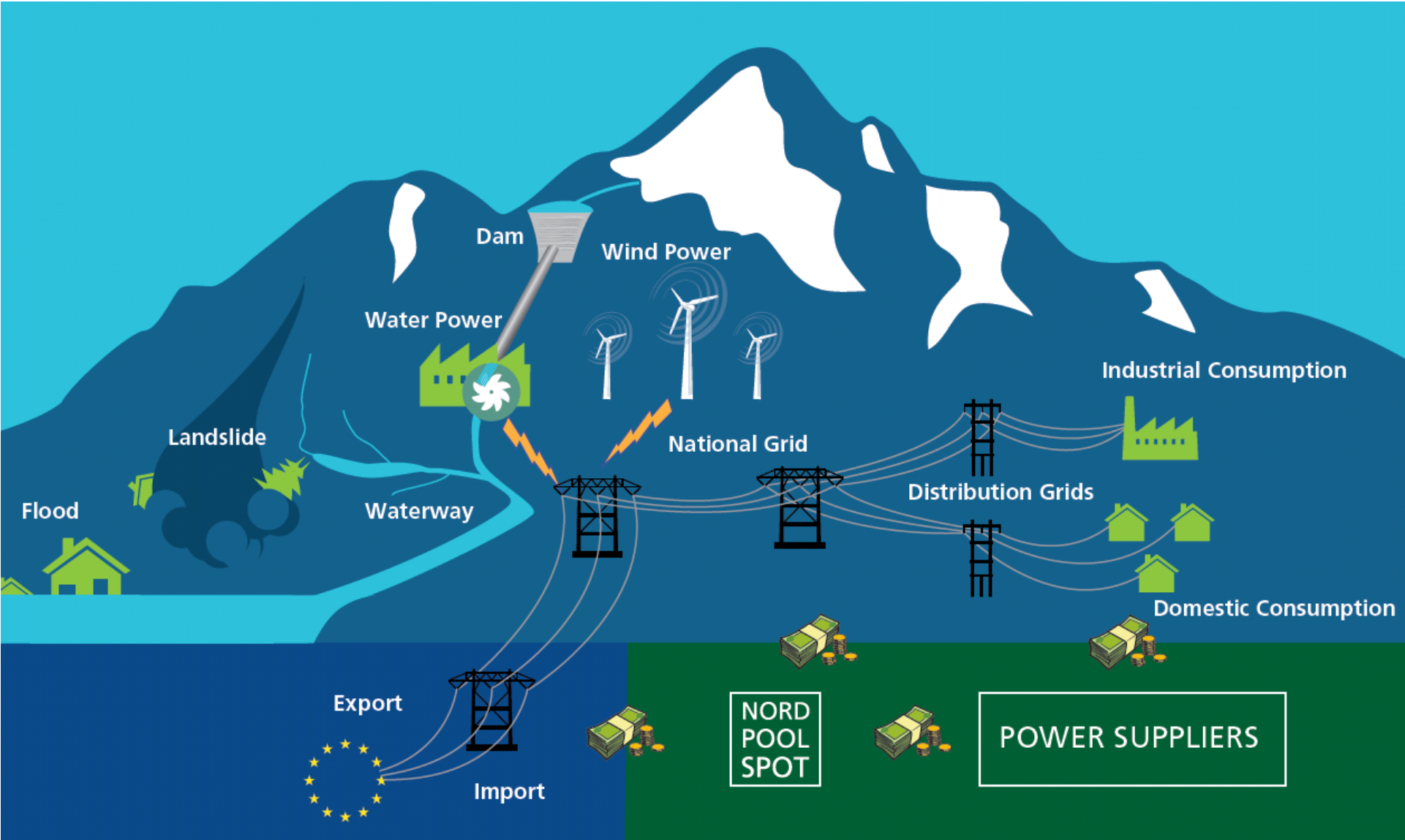


About NVE

- Manages Norway's water and energy resources
- Regulates and promotes an efficient energy market and efficient use of energy
- National authority for floods and landslides
- National institute for hydrology



NVE's Working Areas

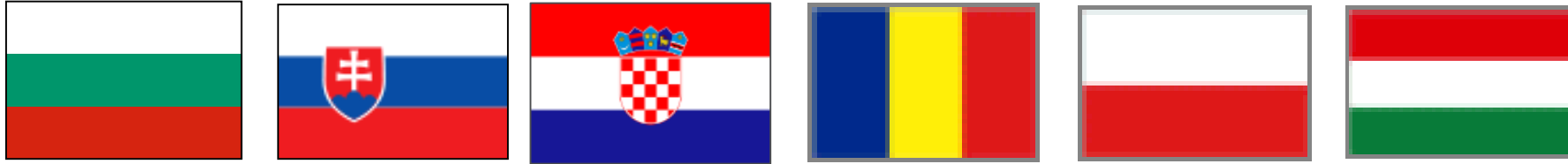




NVE Around the World



EEA/Norway Grants and NVE



- Part of commitments under the EEA
- NVE is **Donor Program Partner (DPP)** for six countries, Bulgaria, Slovakia, Croatia, Romania, Poland and Hungary.
- Program responsible in Georgia for MFA as Program owner.
- We work mainly within the areas of **renewable energy and water resource management, including** energy efficiency, power market development, flood preparedness, hydrology and climate change adaptation.

Energy and Climate Change Programme

- NVE as Donor Program Partner

- Main contact: Mrs. Gunn Oland
- Extra contact: Mr. Bjørn Aulie

- Adviser within the program areas:

- Renewable energy
- Energy efficiency
- Energy security
- Climate change mitigation and adaption



Donor Project Partnerships

- Project Promotors must be registered in the recipient countries
- Which groups that can apply (are eligible) are defined in each call
- Companies and institutions from the donors can be partners
- Partners can come from all sectors: public sector, private sector, NGOs or research institutions.
- Intention letter/draft agreement for being partner to be attached to the application
- Tasks and budget to be decided between the partners

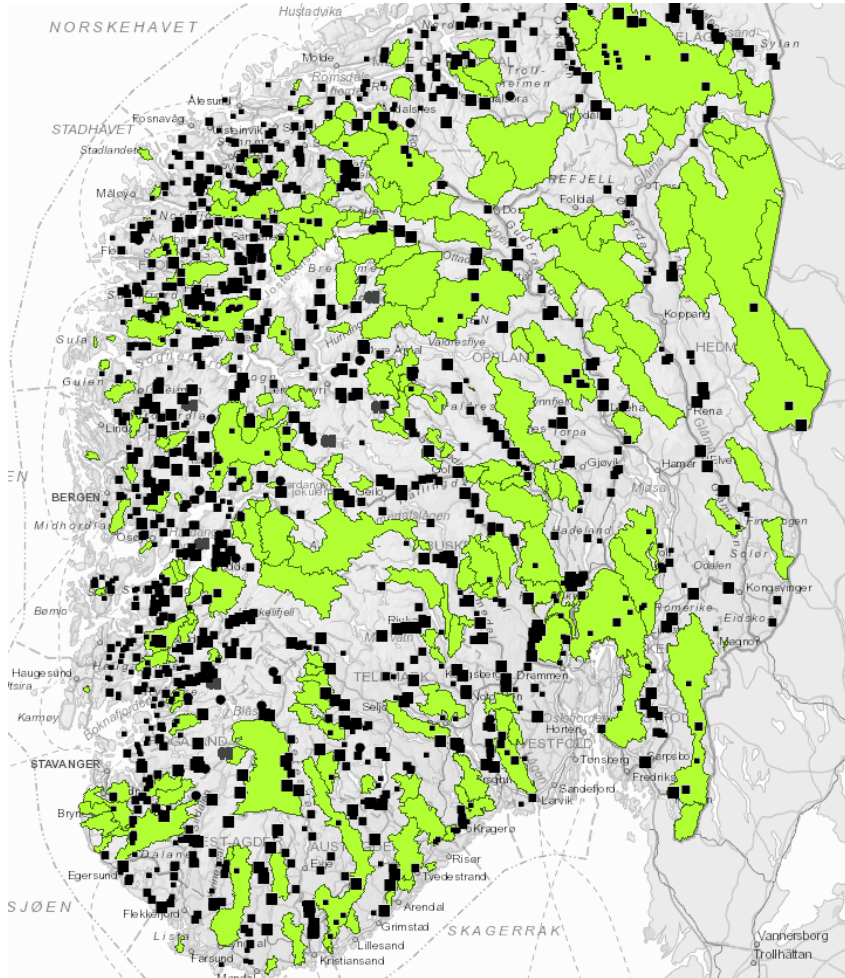


Electricity Production in Norway

- Total installed capacity for electricity: 32 500 MW. Average annual generation: 134 TWh.
- 96 % hydro power - 4 % thermal and wind.
- Largest hydropower producer in Europe, sixth largest in the world.



Hydropower in Norway



Hydropower stations and protection plan for water courses. Southern Norway. Source: atlas.nve.no

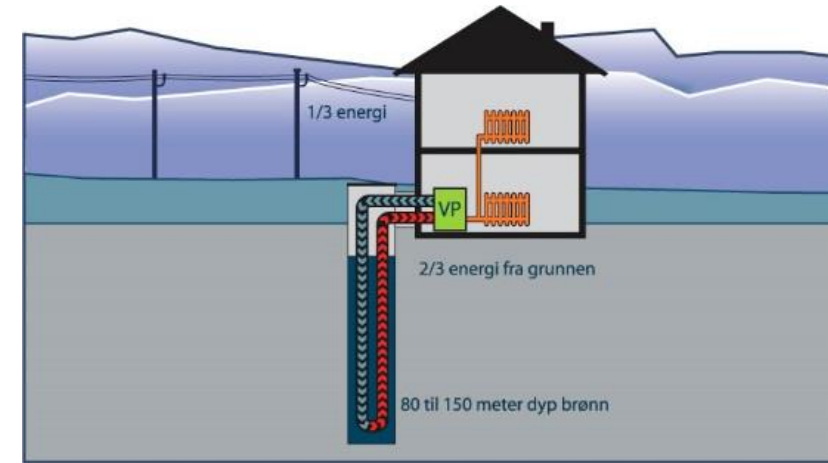


Førrevassdammen, Blåsjø. Photo: Skagerrak Energi.

- More than 1600 hydropower plants
- Reservoir storage capacity: 86,5 TWh

Geothermal energy in Norway

- Installed effect for shallow geothermal heat about 3.500 MW
- About 26.000 heat pump facilities based on exploitation of the shallow geothermal heat.
- Including all types of heat pumps – also air to air and air to water – 15 TWh produced heat out of 6 TWh electricity – totally 750.000 heat pumps



District heating and cooling in Norway

- 5,2 TWh District heating, all major cities.
- 50 % from Waste (waste to energy incineration plants)
- 20 % from Bio
- 15 % from Heat pumps
- 10 % from Electricity
- 5 % from Fossil
- Increasing demand for both district and local cooling





NVE

Foto: Simon Oldani/NVE