



NVE

EEA CLIMATE PROGRAM IN SLOVAKIA – BILATERAL
RELATIONS - EVENT FOR POSSIBLE PARTNERSHIPS BETWEEN
MUNICIPALITIES

October 29, 2019.

Bjørn Aulie, Program Director, NVE – International Section

Today's agenda

- First, introductory presentations by me from the DDP side, from FMO and from the PO.
- Then short presentations from Slovak municipalities and Norwegian municipalities
- At the end of the day we have invited officials from Municipality of Oslo to tell us about “Oslo European Green Capital 2019”
- The goal for the today is; **a first step to project cooperation between municipalities from Slovakia and Norway. It is also set aside time for “matchmaking talks”.**

Climate program in Slovakia – both mitigation and adaptation



- In the previous program we had measures and activities regarding “Adaption to climate change – flood and drought prevention” – with focus on water retention technologies and restoring green areas – among others to reduce flood peaks and counteract decreasing groundwater levels.
- In the current program it is 8 mill. euros available for the component “Action plans for mitigation and adaptation implemented by local authorities in urban areas”. Today’s meeting is related to this component.

Norwegian Water resources and Energy Directorate – Areas of work



Licenses related to energy
and water resources



*Directorate subordinated the
Ministry of Petroleum and
Energy*



Floods and landslides -
preventing damages



Energy system – energy
regulator – security of
supply



Hydrology – analysis,
data and information.

Electricity generation – mostly only from renewable resources and mostly from hydro

- 1.1.2018: Total installed capacity for electricity: 33 755 MW. Average annual generation: 141 TWh.
- 94,3 % hydro power – 3,5 wind power and 2,2 % thermal (waste and other resources).
- Largest hydropower producer in Europe. About 50 percent of the reservoir capacity in Europe.



NVE's work on adaptation to climate change



Expected changes in climate:

- Temperatures will increase, especially in the winter and Northern Norway, and average annual precipitation will generally increase throughout the country.
- It is expected that episodes of **heavy precipitation** significantly increases both in intensity and frequency – more storm water runoff and river floods
- The **sea level will rise** along the entire coast – higher storm surges

NVE has developed a strategy for climate change adaptation

- Within NVE's areas of responsibility, NVE has basically focused on Floods and Landslides.
- NVE will advice on how safety against storm water can be incorporated into municipal area plans.





NVE around the world

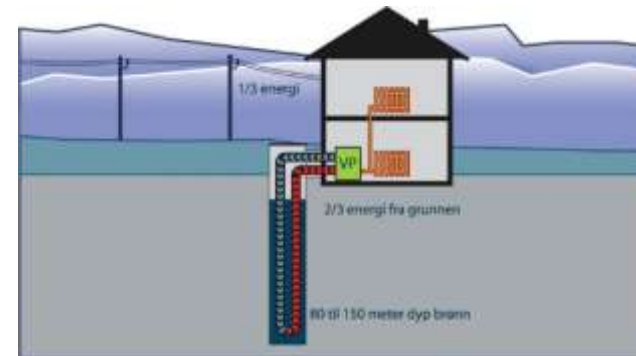


NVE is Donor Program Partner (Adviser) in 5 climate-, energy- and environment programs in 5 countries under the EEA- and Norway grants arrangement.



The main focus under the EEA funded energy and climate programs is to reduce greenhouse gas emissions with less carbon based energy production and consumption

- New energy plants/replacing fossil plants based on renewable energy sources – hydro, geothermal, solar, bio and other renewables.



■ If electrification (areas not electrified) - electricity generated from renewable energy



■ Transport – replacing fossil vehicles with electric vehicles charged by electricity generated from renewable energy sources and vehicles fuelled by hydrogen, biogas, etc.



- Saving energy with more efficient energy solutions in industry and buildings – almost always means reduced CO₂ emissions



- Waste incineration for heat recovery and electricity generation - how large the overall emission reduction will be when the energy from waste incineration is utilized depends on:
 - Which energy source is replaced
 - Energy utilization rate at the waste incineration plant





Thank you for your attention!

Bjørn Aulie/International Section
aul@nve.no