

WORLD
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WATER
WEEK

Presentation from the
2014 World Water Week in Stockholm

www.worldwaterweek.org



The Norwegian licensing system - ecologically sustainable hydropower

World Water Week, Stockholm 1.9.2014

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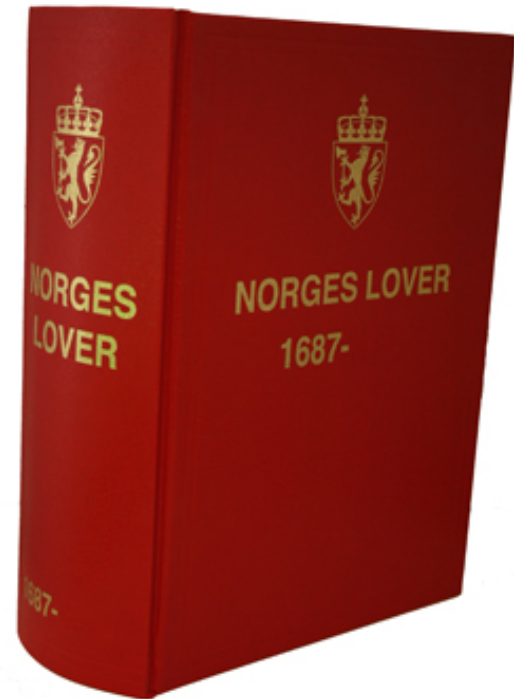
- Subordinated the Ministry of Petroleum and Energy
- Administer water and energy resources
- Licensing authority (among many other responsibilities)



Legislation

NVE coordinates the licensing process in accordance with:

- § Watercourse Regulation Act
- § Water Resources Act
- § Industrial Licensing Act
- § Energy Act
- § Planning and Building Act
 - * EIA Regulations
- § Expropriation of Real Property Act
- § Pollution Control Act
- § Cultural Heritage Act
- § Biodiversity Act



Licensing process

Small hydro (< 10 MW)		Large hydro	
		Notification	<i>Applicant</i>
		Consultation and public meeting	<i>NVE</i>
		EIA program	<i>NVE</i>
Application with small EIA	<i>Applicant</i>	Application with EIA	<i>Applicant</i>
Consultation	<i>NVE</i>	Consultation and public meeting	<i>NVE</i>
Field visit	<i>NVE</i>	Field visit	<i>NVE</i>
		Recommendation to Ministry of P&E	<i>NVE</i>
		Consultation (limited)	<i>MPE</i>
License decision	<i>NVE</i>	Final license decision	<i>Government</i>
Appeals can be requested to MPE			



License conditions

- Approval of detailed construction plan
- Construction deadlines
- Rules of operation
- Minimum flow (ecology, landscape etc.)
- Revision of conditions
 - Every 30 years – if someone demands it
 - Purpose: update / modernize to improve environmental conditions
 - Reservoir levels (HRWL / LRWL), economic compensation, and private-law issues are normally not subjected to revision

National screening and prioritization




- National study conducted by NVE and NEA ([Report 49/2013](#))
- ~ 400 HP licenses (revision bef. 2022)
- 187 rivers/water bodies
- Prioritization based on cost/benefit – environmental improvement vs. estimated production loss
- Other considerations: Supply security, potential for upgrading/refurbishment, effects of climate change, flood risk

Findings and recommendations

- Many regulated rivers have significant potential for environmental improvement
- 50 rivers “high priority” (1.1), and 53 “lower priority” (1.2)
- 84 rivers “no priority” (2.1 and 2.2)
- Minimum/environmental flow: appropriate mitigation measure in ~ 80 % of the priority rivers
- Total production loss estimated to 2,3 – 3,6 TWh/year (1,8 – 2,8 % of annual production)
- Production loss < 5 GWh/year in 40 % of the priority rivers

Water Framework Directive (WFD)

- WFD transposed into the Norwegian Regulation on a Framework for Water Management (“The Water Regulation”)
- The revision screening study: basis for national policy guidelines when implementing the WFD into the River Basement Management Plans
- More information: www.vannportalen.no 

A scenic landscape featuring a river with a small waterfall in the foreground. The water flows over dark rocks, creating white foam. Patches of snow are scattered along the riverbank and among the rocks. The background is filled with tall, dark pine trees and a range of mountains under a heavy, overcast sky. The overall mood is serene and somewhat somber due to the grey sky.

Thank you!