



UKR-09/012

Capacity building for climate change mitigation projects in Ukraine
A capacity building programme funded by the Norwegian Ministry of Foreign Affairs

University training course:
**Development of climate change
mitigation projects in Ukraine**

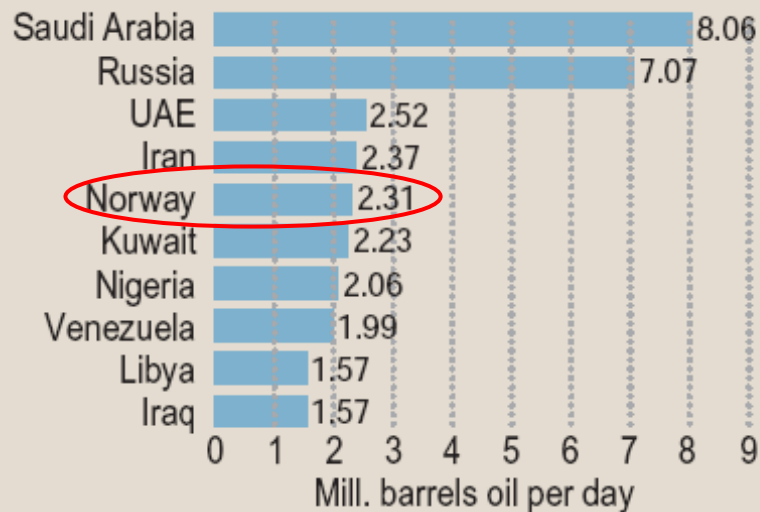


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Norway is an energy nation

Oil

Norway is No 5 in the world



gas

Norway is No 3 in the world

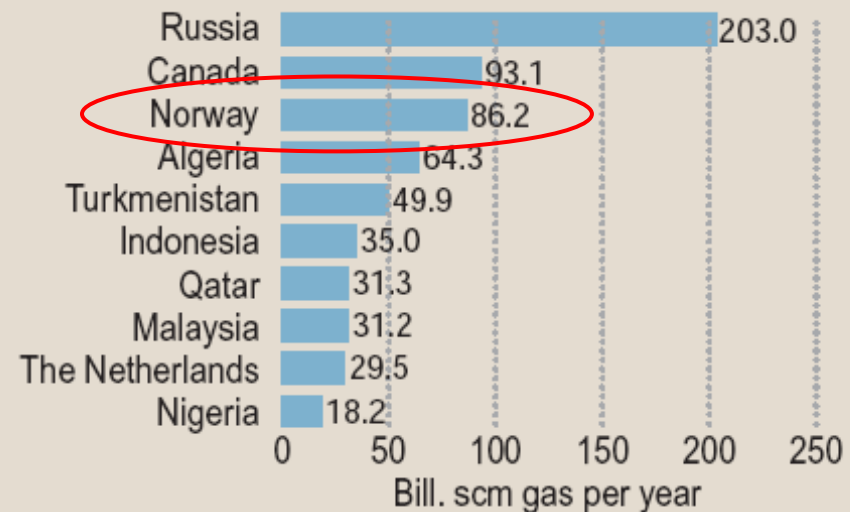
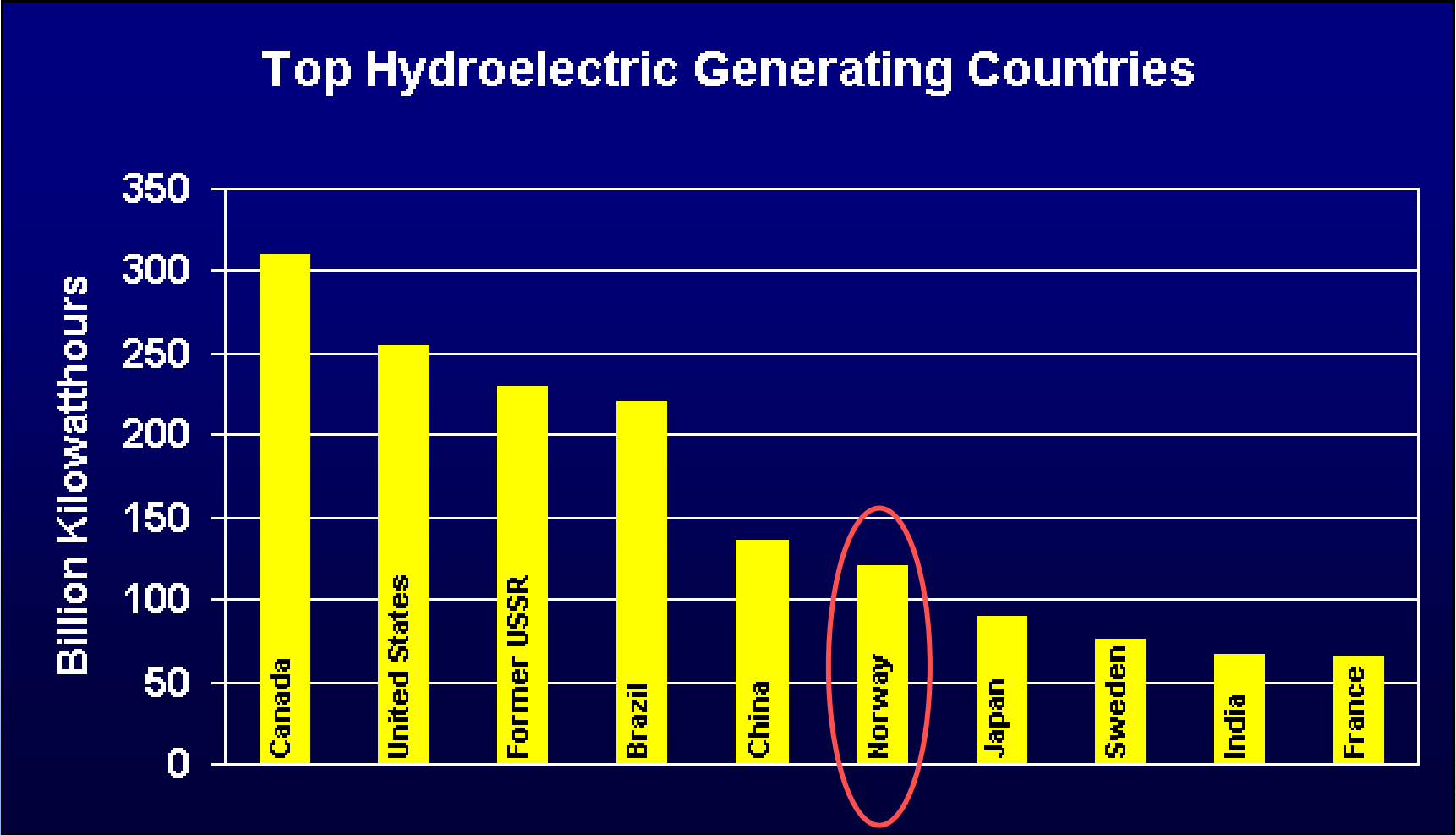


Figure 1.1 The largest oil exporters (including NGL/condensate) in 2007 and gas exporters in 2006



Hydropower

Norway is No 6 in the world



How energy efficient is Norway ?

- Worlds most energy efficient offshore oil and gas sectors
- Worlds most energy efficient ferroalloy industry
- Europes highest share of renewable energy (100 % renewable electricity sector, 60 % renewable energy in total).





Norwegian Climate Change Targets

- Norway will over-fulfil its commitment under the Kyoto Protocol by 10 per cent, corresponding to 5 million tons of CO₂-equivalents annually in the period 2008-2012
- By 2020 Norway will cut its emissions by 30 per cent
- Norway is ready to become carbon neutral by 2030 as part of an ambitious agreement, where other industrial nations make substantial commitments



How do Norway promote energy efficiency and renewable energy ?

Domestically:

- 20 % investment support,
- green certificates,
- CO₂ tax
- Emission trading
- Research and development

International :

- Proactive in the UNFCCC negotiations
- Purchase of ERUs and CERs.
- Funding IFI's
- Funding capacity building

How do Norsk Energi promote energy efficiency and renewable energy ?

Domestically:

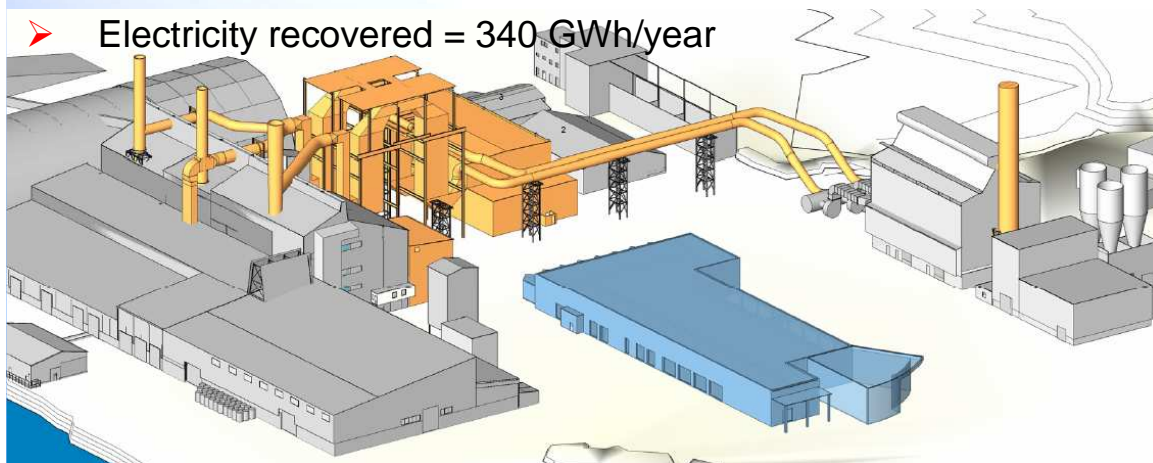
- 80 engineers involved in energy efficiency and renewable energy projects


International dept.:

- Involved in technical assistance And capacity building in Ukraine, Russia, Georgia, Armenia, Azerbaijan, Tadjikistan, Macedonia and South Sudan.

Project example:

- Engineering of waste heat recovery at Finnjord ferroalloy company
- Investment 80 mill EUR
- Electricity recovered = 340 GWh/year





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Main components:

1. Technical assistance to Ukrainian companies on development of business plans
2. Training program on business planning of EE & RE projects
3. Development of a practical guide-book





Sub project:

University training course on business planning of climate change mitigation projects in Ukraine

Goal

Develop a training program for certification of Ukrainian project developers within energy efficiency, renewable energy. The guidebook is available for universities, institutions and companies all over Ukraine.

Цель

Разработать программу обучения по сертификации украинских разработчиков проекта в энергоэффективность, возобновляемые источники энергии. Обучение должно быть доступным для разработчиков проектов по всей Украине.



Target group

Target group

The target group for the above mentioned training and education is industry leaders, engineers from industry and consulting companies as well as students at the universities. Basic technical knowledge of energy efficiency and renewable energy is a precondition for all attendants.

Целевая группа

Целевой группы для вышеуказанных обучения и воспитания лидеров индустрии, инженеры из промышленности и консалтинговых компаний, а также студентов вузов. Основные технические знания, энергоэффективности и использования возобновляемых источников энергии является обязательным условием для всех обслуживающего персонала.



Partners

- **Sumy State University**
- **Clean Technology Centre, Kiev**
- **ESCO EnergoEngineering, Dnepropetrovsk**
- **Norsk Energi**