



OLJE- OG ENERGIDEPARTEMENTET

# Norwegian Energy Policy

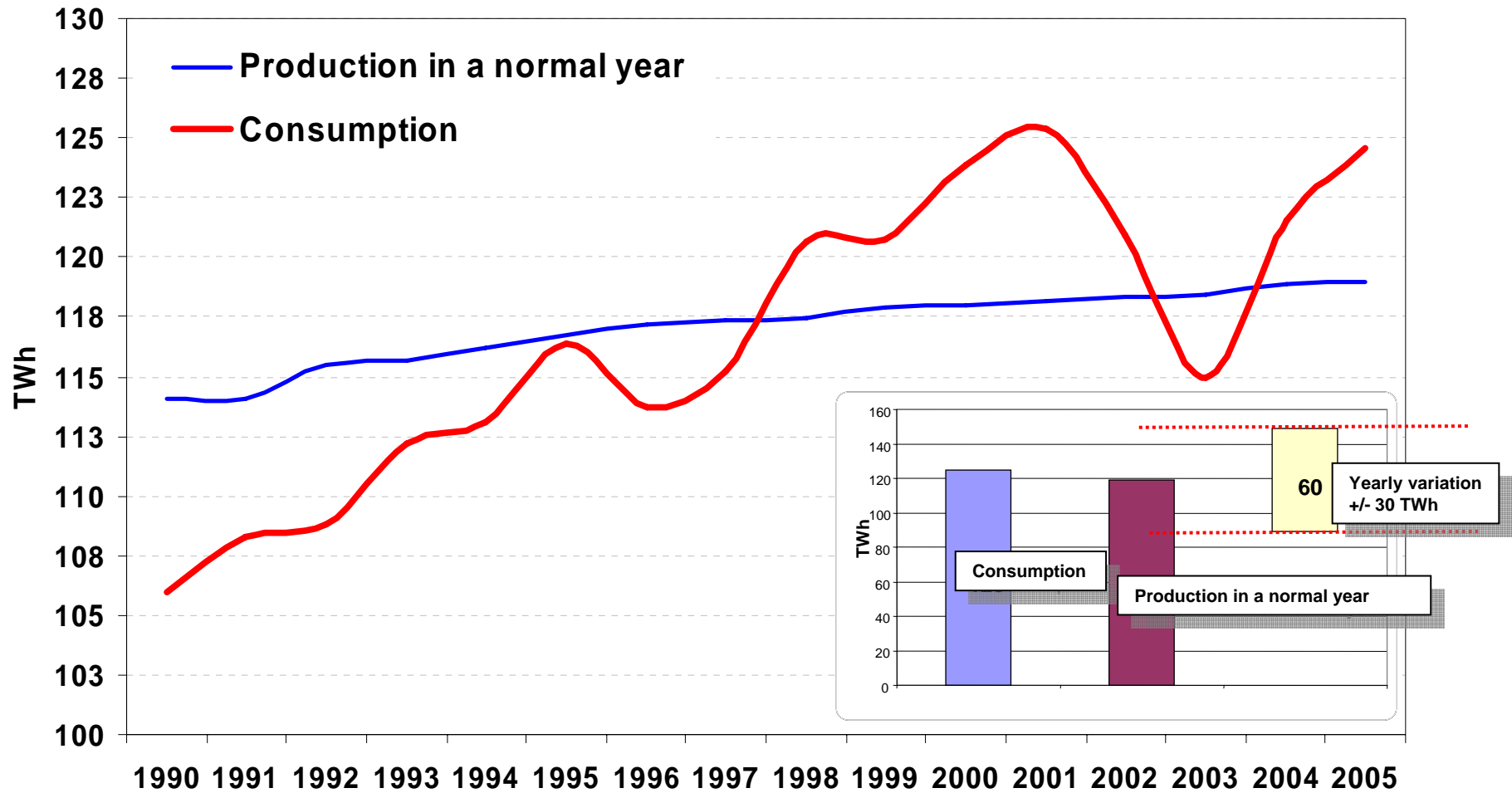
**State Secretary  
Anita Utseth**

NEP, 27 September 2006

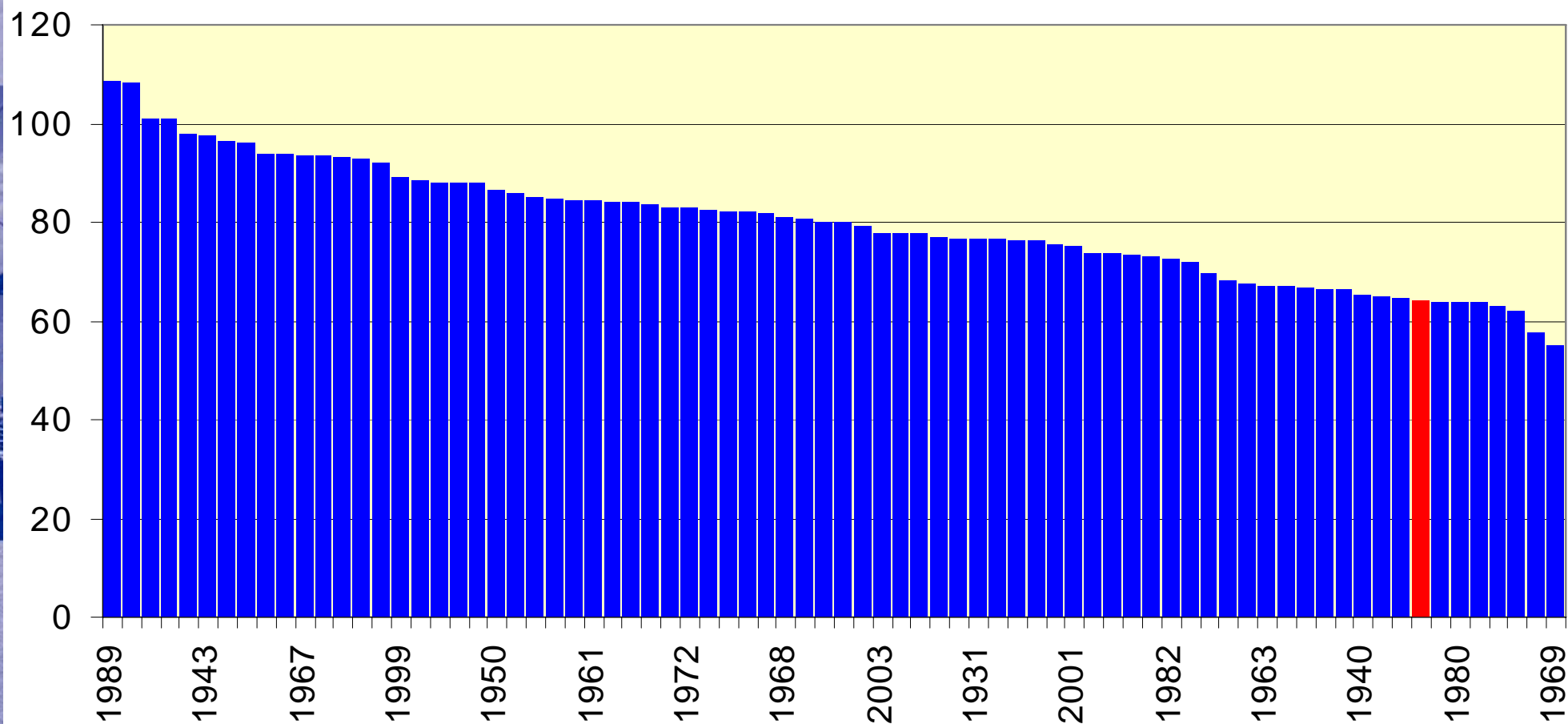
# Norwegian Challenges

- Energy Security: Secure a stable energy supply with predictable prices
- Meet the Kyoto target on emissions of green house gases
- Dependence on rainfall and inflow to water reservoirs
- The Industry's long term contracts terminate in 2005-2010
- Record high prices on electricity to consumers

# Focus on Security of Supply



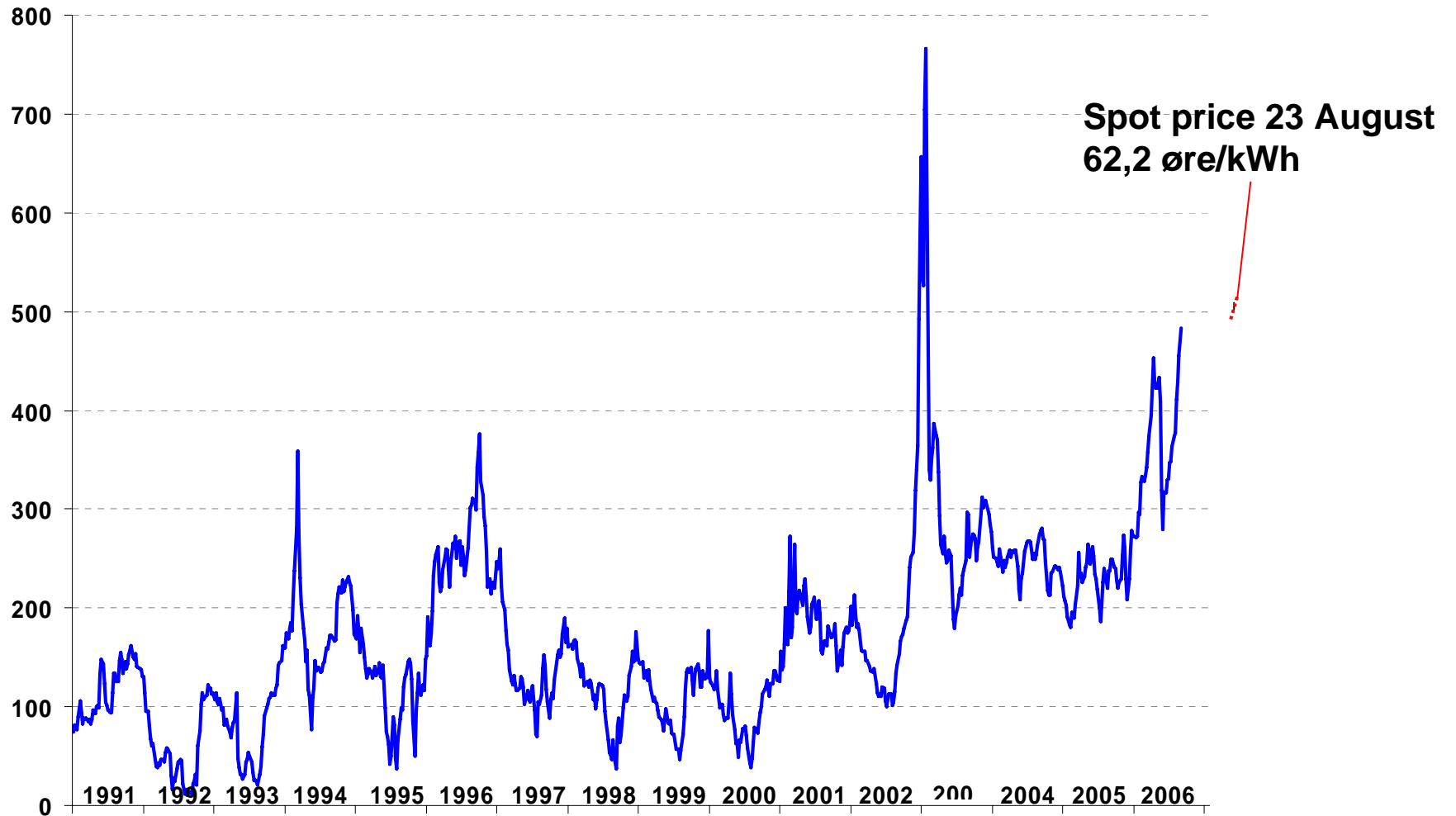
# Sum usable water inflow (TWh) week 1-33, 1931 - 2006



Source: NVE

# Spot prices of electricity (1991-2006)

kr/MWh



# Government actions

## Goal:

- to secure a stable supply of energy at acceptable prices to households and to the industry
  - Initiative to change energy use and supply
    - new electricity production from additional renewable sources
    - increased use of district and residential heating and biomass
    - energy efficiency and energy savings
  - Contribute to making gas fired power plants with carbon capture and storage a reality

# Initiative to change energy use and supply

- The initiative to change energy use and supply means that we will change how we produce, transport and use energy
- We are dependent on a market development of new effective and sustainable renewable solutions
- Enova is the Government's instrument in the initiative to change energy use and supply

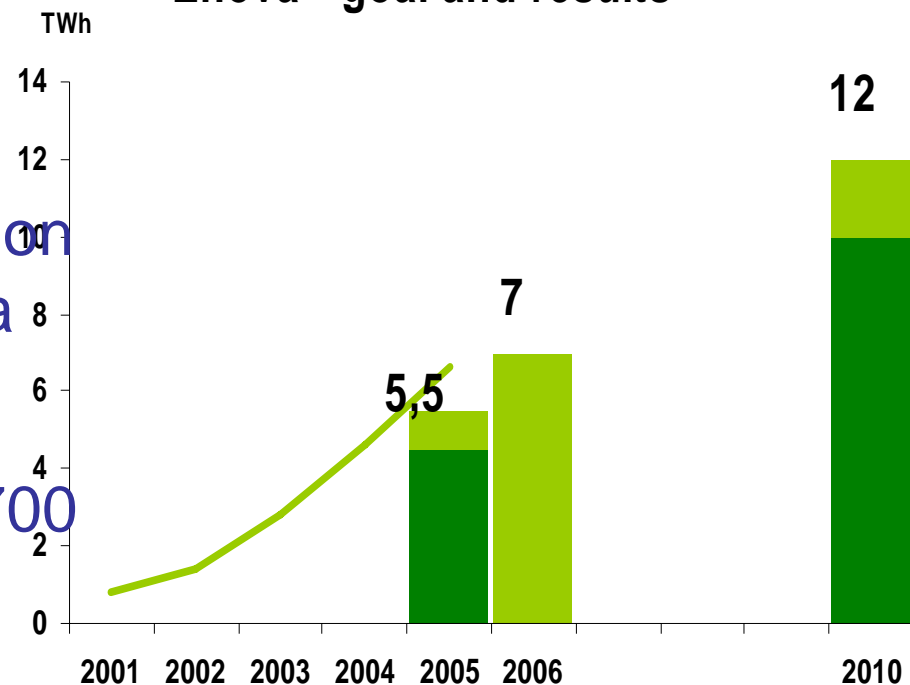


# Enova



- The overall target for energy saving and renewable energy is:
  - 12TWh within 2010
  - 30 TWh within 2016
- Government has decided to establish fund of NOK 20 billion to increase funding for Enova
- Proceeds from fund will increase funding from NOK 700 mill to NOK 1,6 bn annually

Enova - goal and results

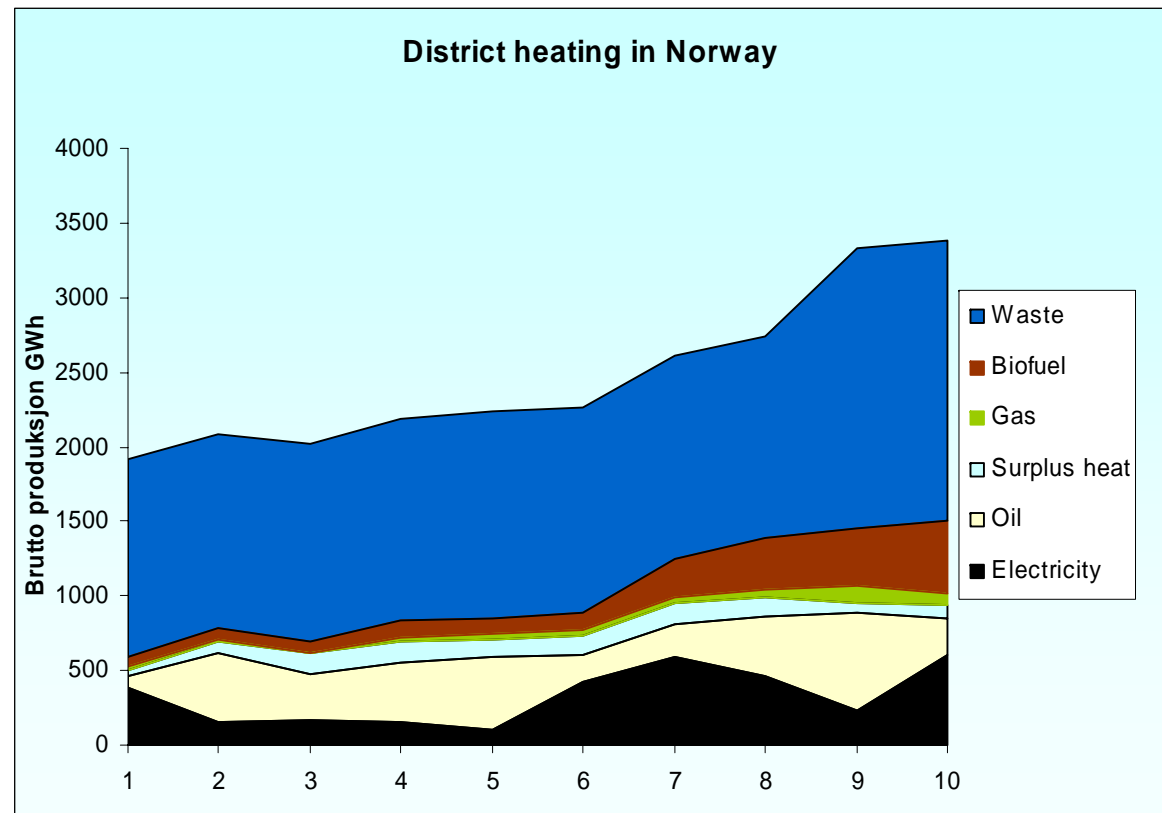




# District heating is an important focus area

Development of the infrastructure is important:

- To increase the flexibility in the energy system
- To be able to use more renewable energy sources.



# Bioenergy and residential heating

Considerable resources  
High demand for heating



Bionordic - Jostedal 1



Special support scheme for households to limit use of electricity



# The Government's Target

## CO<sub>2</sub>-capture and value chains for CO<sub>2</sub>



Seller

Sources of CO<sub>2</sub>:  
Gas fired power  
Plants  
Industrial Plants



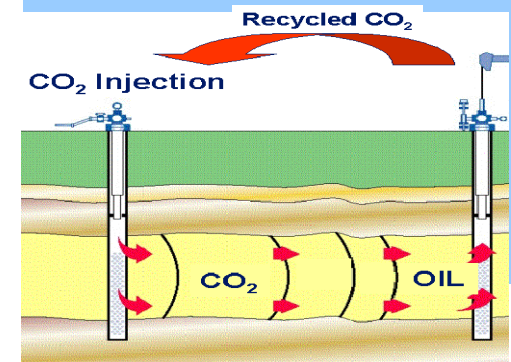
Transport



Buyer



CO<sub>2</sub> to EOR  
Storage



# Status of CO<sub>2</sub>-capture

- Construction of Naturkrafts gas fired power plant at Kårstø has started
- The government has started the planning of CO<sub>2</sub> capture at the plant
- The aim is to establish a CO<sub>2</sub>-capture facility at Kårstø by the end of 2009
- Statoil and Shell are working on the Halten project



# Summary

- Security of supply is job # 1
- Lack of inflow to the Norwegian water reservoirs this year, leading to increased scarcity and higher prices
- Historic increase in funding for renewables; Fund of NOK 20 billion to be established
- Heating and bio energy are important to limit use of electricity
- Need of new electricity production to improve the energy balance:
  - New renewable Energy Sources
  - Carbon Capture and Value Chains for CO<sub>2</sub>