

Ground-breaking industry and environment project

An industrial model for a CO₂ value chain in Norway



The industry model



An integrated value chain for electricity and CO₂

Power plant at Tjeldbergodden



- 860 MW gas power plant:
 - Serving offshore electricity demand
 - Secure regional power supply



CO₂ capture and transport



- CO₂ for offshore injection
 - Up to 2.5 million tonnes CO₂ injected annually

CO₂ for enhanced oil recovery/storage



- Enhanced oil recovery:
 - Draugen
 - Heidrun
 - Potentially other candidates



Dependent on gas power plant with carbon capture



One project – several players

- Shell and Statoil will:
 - Engage in commercial and technological evaluations to realise the CO₂ value chain
 - Invest in all parts of the chain
- A successful development requires:
 - A substantial economic contribution by the Norwegian authorities
 - Contribution by industrial players onshore and offshore



An industrial solution

A win-win-win for:

- Industry
 - Large-scale CO₂ for EOR
 - Improved security of supply
- Environment
 - Reduction of CO₂ and NO_x emissions through offshore electrification
 - Industrial utilisation of greener fossil fuel technologies with a global market potential
- Society
 - Prolonged field life and increased oil recovery
 - National electricity grid benefits



Execution plan

- Establish a joint project team between Shell and Statoil with the following milestones:
 - Feasibility study End of 2006
 - Concept select End of 2007
 - Value chain investment decision End of 2008

- Provided a satisfactory commercial outcome:
 - Start-up power plant and electrification of Draugen 2010 – 2011
 - First CO₂ supply to Draugen for EOR 2011 – 2012



A greener solution - faster

- Meeting the climate challenge
- Solving a regional power deficit
- Enhanced oil recovery
- Security of supply
- Value creation and industrial development

