



IEA Greenhouse Gas R&D Programme



Proposed Large Scale Deployment of CCS in Europe

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European Commission Activities

- COM(2006)843, 10.01.07, Sustainable power generation from fossil fuels: aiming for near-zero emissions from coal by 2020
 - Follow up to Commission Green Paper
 - A European strategy for secure, competitive, and sustainable energy – adopted in March 2006
 - Key actions included:
 - Make demonstration of sustainable fossil fuel technologies a priority research topic for 2007-2013
 - Substantial increase in EC R&D funding
 - Member states to make an equal commitment
 - Options to support up to 12 large scale demonstrations
 - All plants will need to be ‘capture ready’

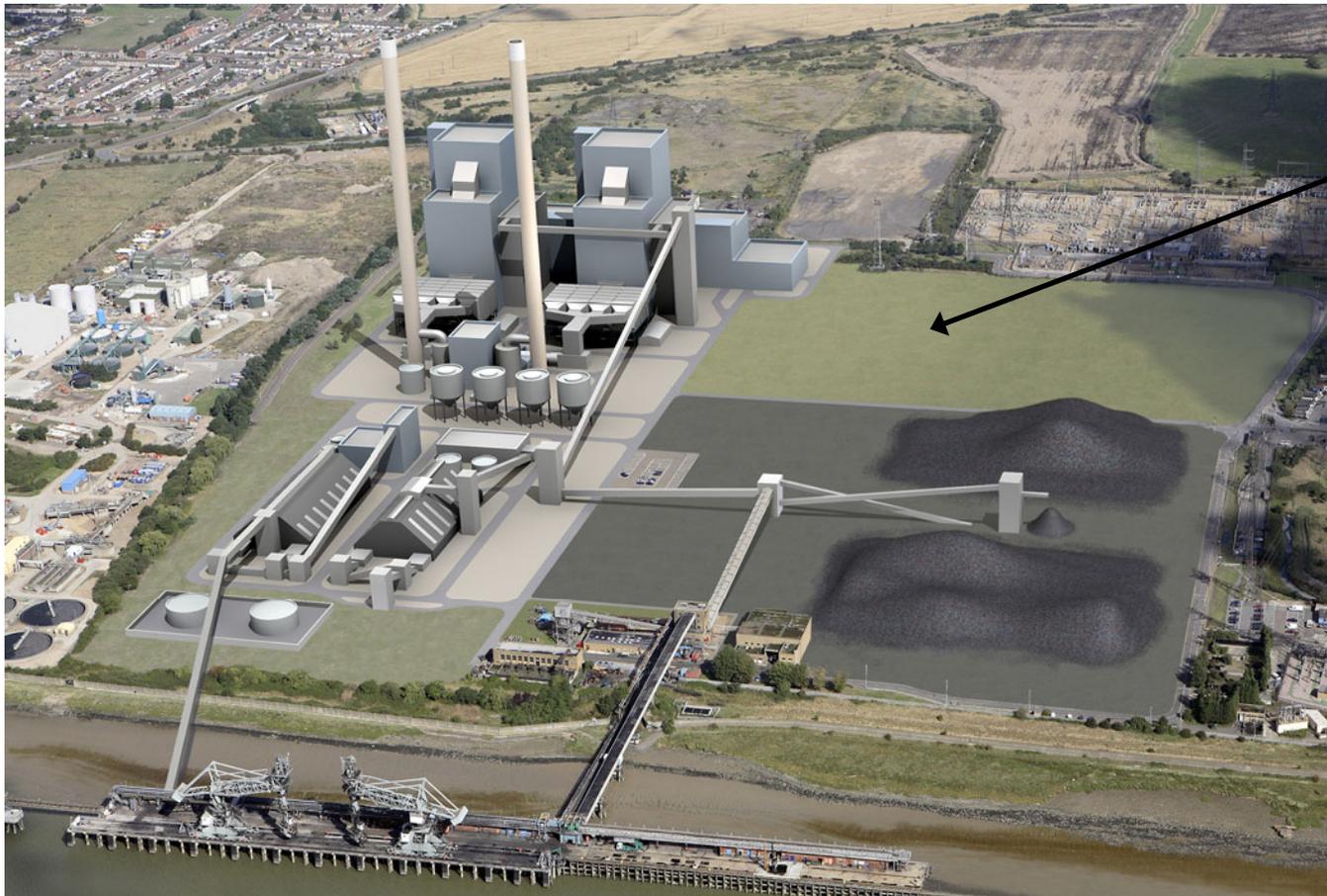


What is 'Capture Ready'

- A plant that can include CO₂ capture when the necessary economic/regulatory drivers are in place.
 - Aim is to prevent a 'carbon lock-in'
- Developers need to ensure that all known factors that could prevent the installation of CO₂ Capture are identified.
 - This could include:
 - Carrying out a study of capture retrofit options and pre-investment needs
 - Leave space and access for future capture facilities
 - Identify a reasonable route to storage of CO₂
- Information provided to appropriate authority before any new plant is built



CO₂ Capture Ready Plant



'Capture Ready' area
(Site of existing power plant)

Proposed 'capture ready' power plant at Tilbury

Courtesy RWE Npower

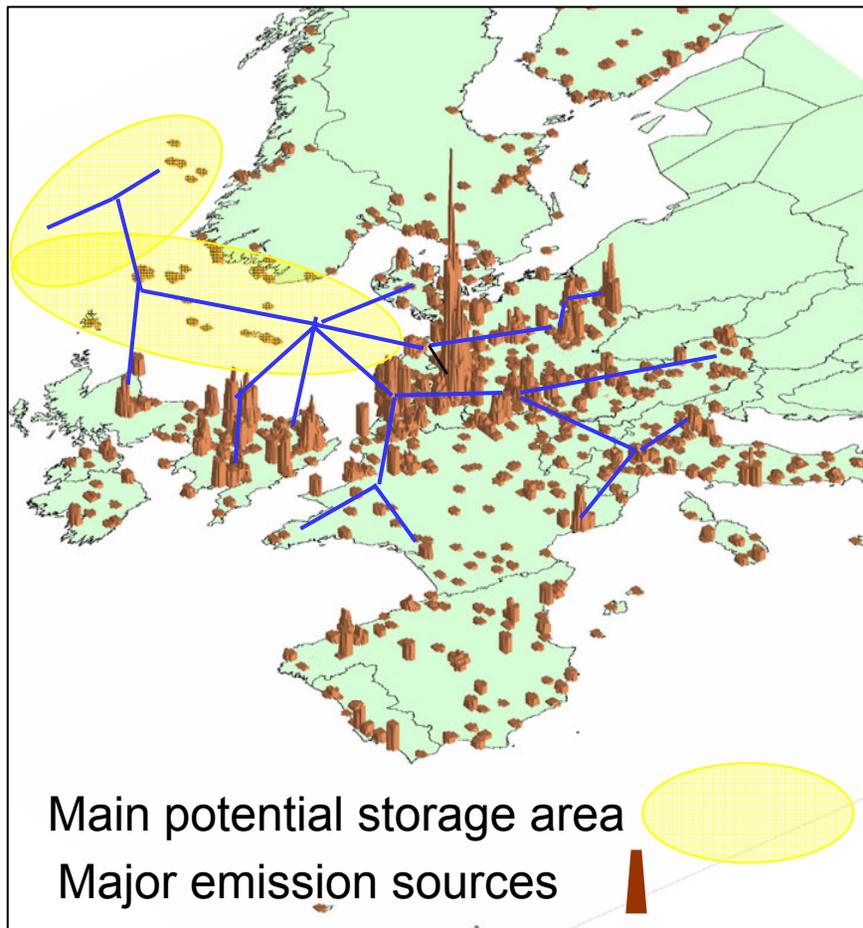


Zero Emission Fossil Fuel Power Plants

- Technology Platform launched in 2005
 - Aim is to identify and remove the obstacles to the creation of highly efficient power plants with near-zero emissions
 - Includes CO₂ capture and storage
 - Working groups created to target key issues:
 - Plant efficiency and capture
 - CO₂ use and storage
 - Infrastructure and environment
 - Market and regulatory policy
 - Public acceptance
 - Strategic work plan for Framework Programme 7



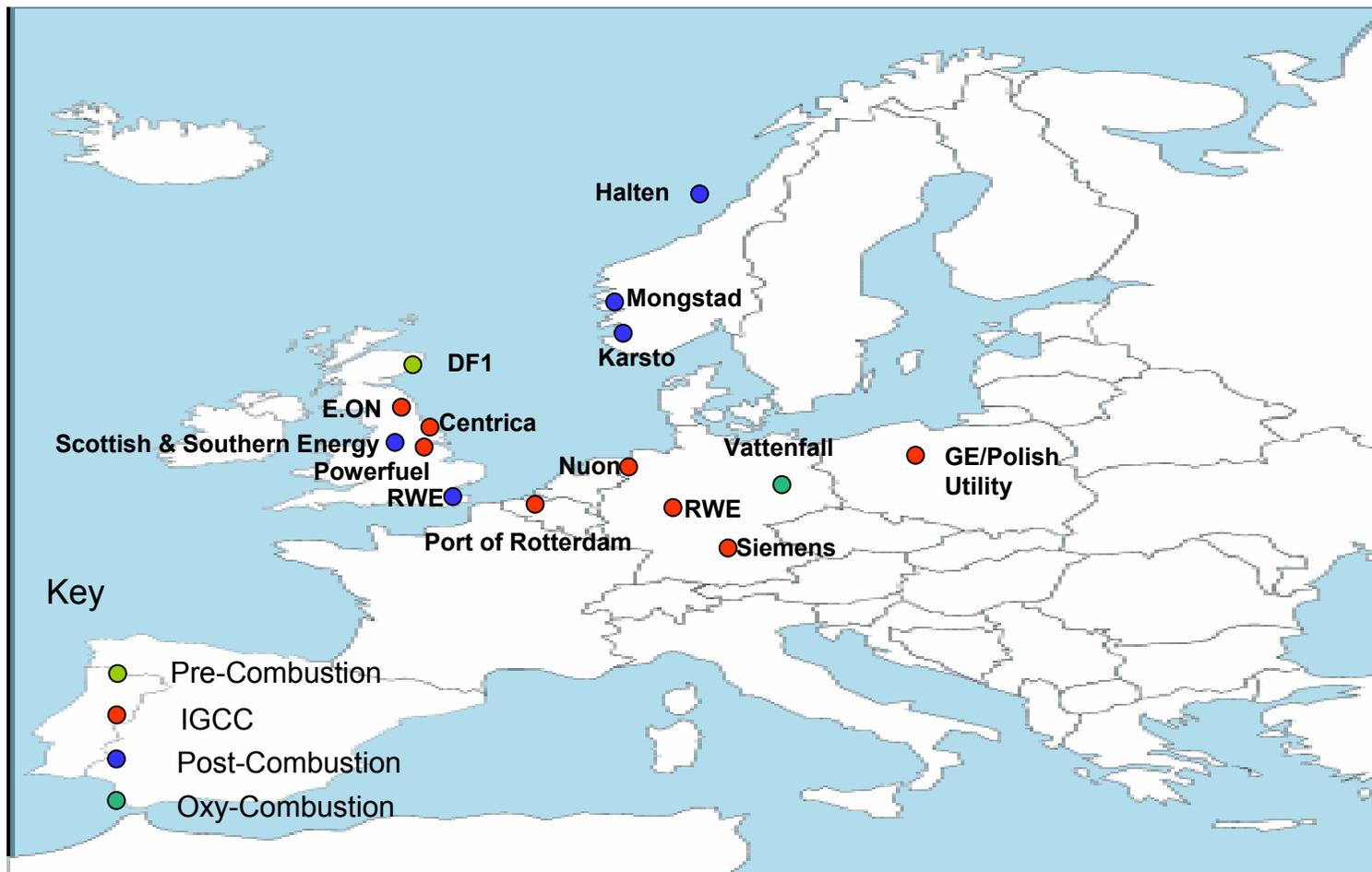
Storage and Emissions in Europe



- Issues:
 - Substantial pipeline system required
 - 150,000 km
 - High cost element
 - €120 Billion
 - Who will finance the infrastructure development?
 - Will it develop piece meal or in a structured development?
 - BASEL Convention implications

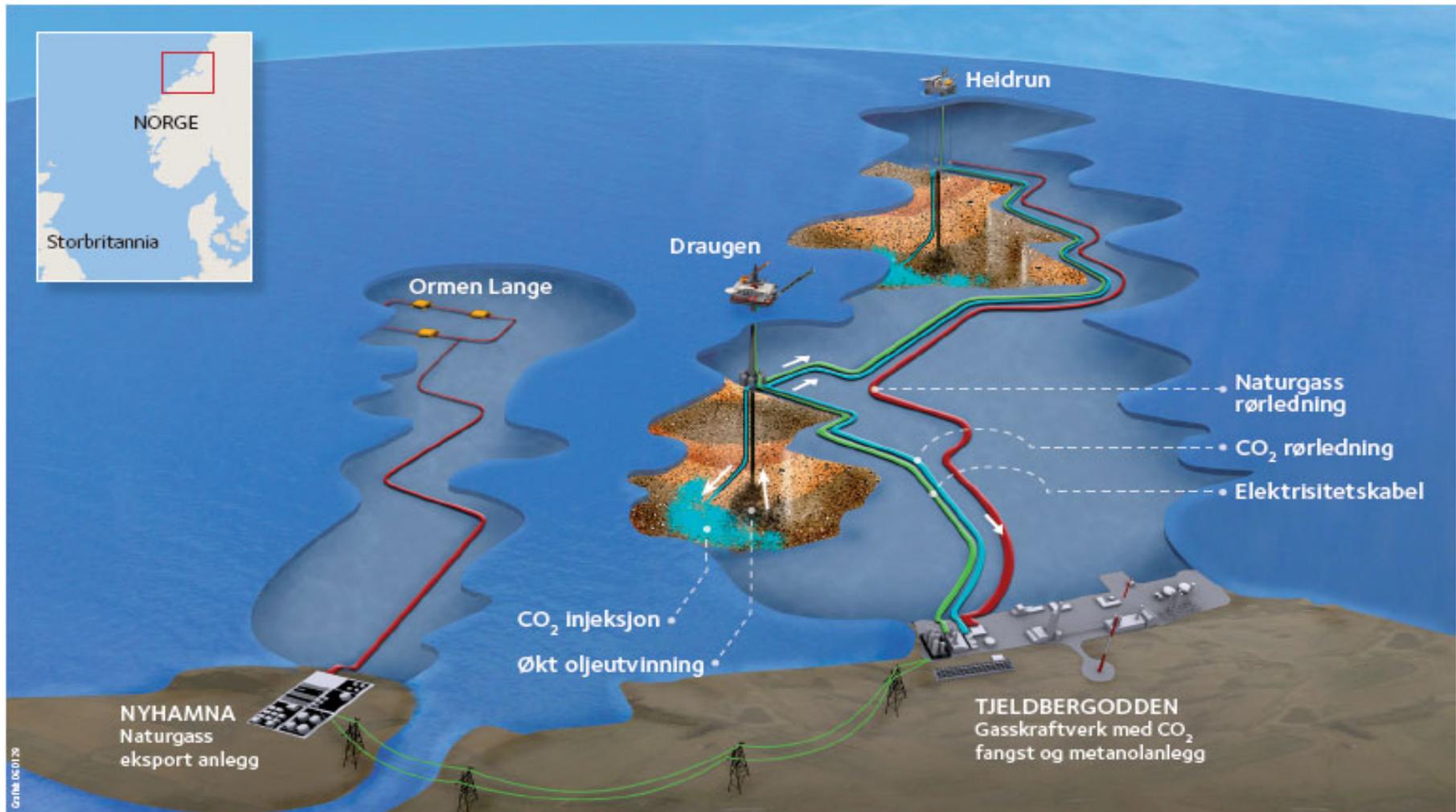


Proposed Integrated CCS Projects





Norwegian Approach





Regulatory Development

- National Laws
 - Netherlands adapted its existing Mining Law
 - Norway using existing Oil and Gas exploration laws
 - UK reviewing existing oil and gas legislation for offshore storage
 - Consultation paper
- European Union
 - Reviewing implications of CCS under existing environmental Directives
 - Waste Disposal
 - Water Directive
 - Environmental Impact Assessment Directive
 - Integrated Pollution prevention and Control Directive



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Thank You



* Formalities pending

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