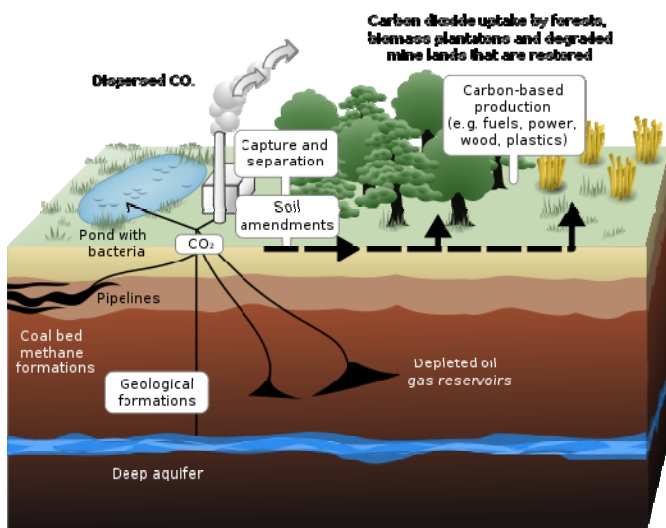


# PCP project in Norway:

## Gassnova – Statoil Carbon Capture project

In 2011 Statoil (a Norwegian oil and gas operator where the state holds a majority ownership share) and Gassnova (a state owned enterprise which manages the Norwegian state's interests in carbon capture and storage) launched a pre-commercial procurement to get better solutions developed for carbon capture. The project aims to find new technology approaches to prevent release of large quantities of CO<sub>2</sub> into the atmosphere from fossil fuel use in the heat and power plant in Mongstad. One of the main motivations for Statoil / Gassnova to try out the PCP approach was to create more innovation and competition, as no carbon capture facility of this size and magnitude has been built before and as there is a need to control and reduce undesired side effects in order to safeguard the interest of the environment and human health.



Carbon Capture and Storage/Reuse principle



Mongstad plant

July 2011 the PCP call for tender was launched via an internationally open publication in the official Journal of the European Union<sup>1</sup>. In November 2011 the following 5 leading technology providers were selected to start the PCP process which aims to design, prototype and test the solution approaches of different vendors at the Mongstad plant<sup>2</sup>: Mitsubishi Heavy Industries LTD., ALSTOM Carbon Capture GmbH, Siemens AG, Aker Clean Carbon and Huaneng-CERI Powerspan Joint Venture.

The aim of the carbon capture PCP for Statoil / Gassnova was to ultimately be able to develop and qualify the best technical solutions that are able to meet the performance requirements required for use at Mongstad, which is expected to contribute to the demonstration that they can be scaled up, to be used later at large across other sites around the world at the lowest possible cost (including degree of capture, energy consumption, health, environmental and safety effects). To achieve this, the major part of the PCP was centered around a tailor-made technology qualification program, providing a route for new solutions to show that they can qualify themselves against the stringent certification requirements that need to be met to qualify for deployment of solutions in this sector.

The PCP finished beginning 2013 and successfully compared solution approaches from the 5 vendors representing different carbon capture technology approaches. The Carbon Capture Mongstad PCP project was a very large industrial and technological development project, and a plant of similar size had never been built before. The PCP approach enabled Statoil / Gassnova to interest also new nontraditional vendors to develop solutions.

<sup>1</sup> <http://ted.europa.eu/udl?uri=TED:NOTICE:214787-2011:TEXT:EN:HTML&src=0>

<sup>2</sup> More info about project: <http://www.gassnova.no/news-archive/the-invitation-to-technology-qualification-programme-for-full-scale-co2-capture-at-mongstad-has-now-been-announced-by-gassnova-and-statoil/> and [http://www.gassnova.no/suppliers-chosen-for-technology-qualification-at-mongstad-co2-capture-project/?publish\\_id=1428&year=2012](http://www.gassnova.no/suppliers-chosen-for-technology-qualification-at-mongstad-co2-capture-project/?publish_id=1428&year=2012)