

Role of Hydrogen in Energy Independence and Security

Region North Denmark Case



by

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Background and who we are and what we do

The main Targets of the broad Danish Energy Agreement in the Parliament from March 2012:

- Fossil independent and secure energy system in 2050 (Power, Heat and Transportation)
- 50% of electricity production from wind in 2020 – **Hydrogen will play a role**

Who we are and what we do:

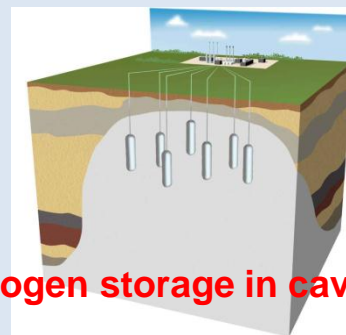
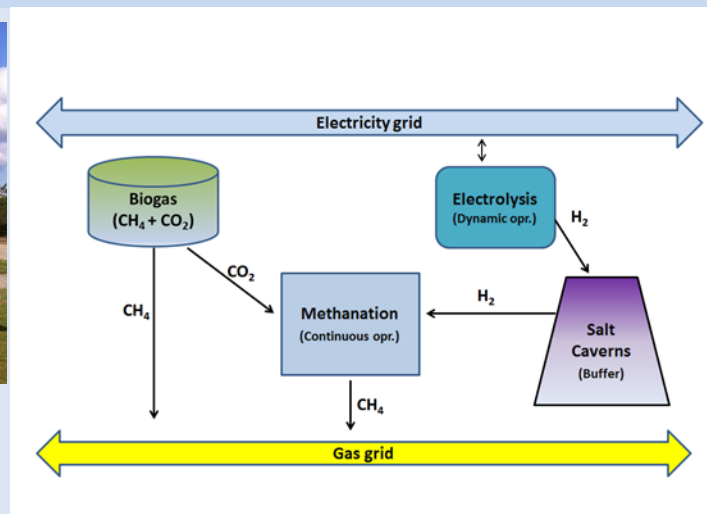
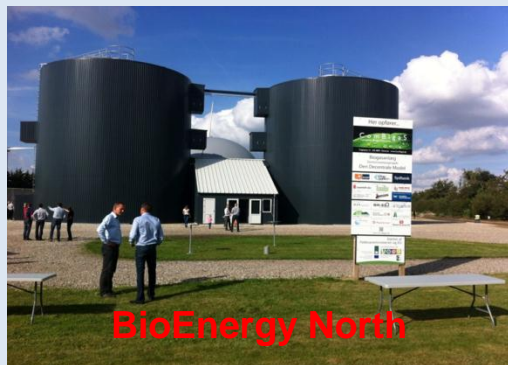
- Non profit organization
- Public regional funding of basic activities
- Purpose: Creating jobs and development through: **Facilitating, Networking and Fundraising**
- Focus on Hydrogen and Fuel Cells since 2005 – focus on business models for green transition (Green gasses) since 2015

Results in creation jobs and development in Region North Denmark (RND) in the FCH-sector (2005 – 2015)

- > **200 jobs** created directly and indirectly in RND in the FCH-sector (a.o. Dantherm Power and Serenergy)
- > **30 million €** public a.o. EU Regional funds invested in facilities and project activities in the FCH-sector
- Leading international private **companies attracted** to invest in RND due to green demonstration possibilities
- Knowledge and experience in Triple-Helix Partnership development



New demonstration projects in RND (Hydrogen Hub Hobro)



How to support business development towards a Hydrogen based energy independence and security?

*3 addressed issues from the formulation of the present national Danish strategy on energy conversion, storing and distribution by the **Partnership for Hydrogen and Fuel Cells** with RND and EU relevance to be discussed:*

- Hydrogen`s role in a future European energy system as a **medium for energy storage and distribution**
- The need for **national support** for energy conversion of electricity to storable Hydrogen and Synthetic Methane (Parallel to the support of Wind, Solar and Biogas/Bio-Methane) – tariff and tax issues
- The need for building up an inner European Energy Market with **trade across borders of green gasses** - common quality standards and economics (Green Certificates) – What is the status?