

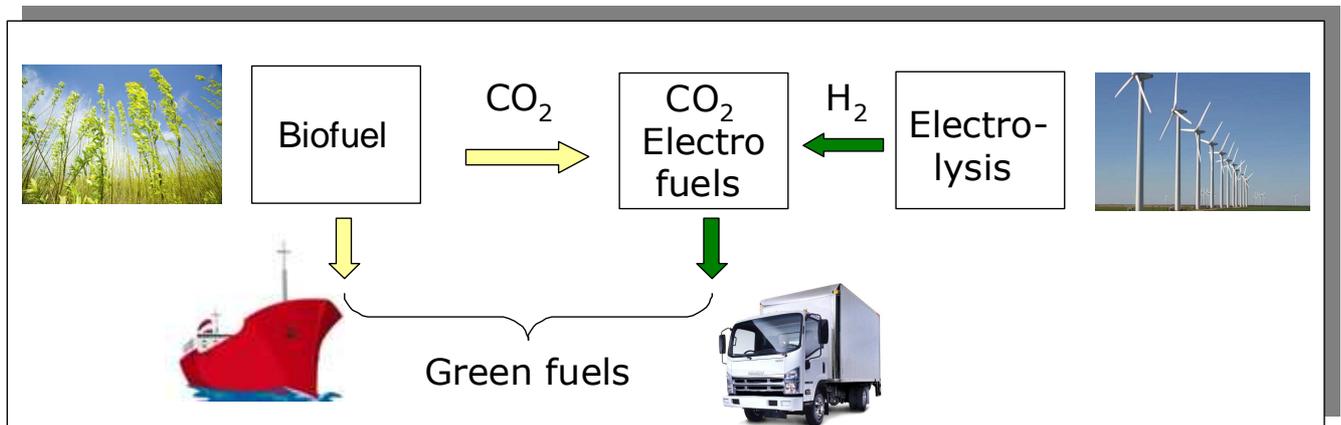
CO₂ electrofuels seminar, workshop and networking Iceland June 12th-13th 2013

Learn more about options for:

- A CO₂ neutral transport sector including green ships and trucks
- A more effective use of the carbon available from limited biomass resources
- Integrating renewable and intermittent electrical power sources into the grid

To develop a CO₂ neutral and cost effective transport sector, a very promising approach is to ‘store’ electrical power as (liquid) fuels. This can be done by combining hydrogen from electrolysis with sustainable CO₂ emitted from biomass conversion or other sources, such as geothermal CO₂.

We call this scheme for CO₂ Electrofuels



In November 2011, a Nordic project with 10 partners was started on CO₂ Electrofuels. This project will quantify the capacity and cost potential of the CO₂ Electrofuels and propose roadmaps for the introduction of CO₂ Electrofuels in the Nordic region.

Join us in Reykjavik for the final project seminar and workshop to debate key topics with international colleagues

- Be updated on the progress in our Nordic project.
- Learn more on the international status in this area
- How can green fuels such as methane, methanol and DME be cost-effectively introduced before 2020?
- What are the costs of producing CO₂ electrofuels? This is exemplified by 6 specific cases
- What are the possible immediate steps and who are the possible partners

Preliminary seminar program

Registration before May 1st on
<http://nmi.is/about-us/events/co2-electrofuel-seminar-2013/>

June 12 Arion banki, Borgartúni 19, Reykjavik (public)

New fuels for the near future

1. Introduction
2. New fuels for ships
3. New fuels for trucks
4. Distributing new fuels
5. Case story: Vehicle gas in Sweden
6. Methanol for Icelandic fishing vessels
7. Exporting Icelandic electricity as fuels?

Lunch

CO₂ Electrofuels project results

1. Setting the scene – Background
2. Key technologies – SOEC, fuel synthesis and integration
3. Summary of the 6 cases
4. CO₂ Electrofuels potential

Whale sightseeing and dinner on-board

June 13 Blue Lagoon (project and invited)

Works shops on:

1. CO₂ Electrofuel production & technologies
2. Fuels & Infrastructure for future trucks and ships
3. New fuels and supply chains – logistic organizational and political barriers
4. The next critical R&D and demonstration steps for CO₂ Electrofuels

Lunch followed by

Summary of workshop discussions
Panel discussions

Sightseeing at CRI geothermal methanol plant

Visit to the Blue Lagoon

Learn more on our project on

<http://www.CO2-Electrofuels.org/>

CO₂ Electrofuels is a very attractive solution to the combined challenges of:

- CO₂ neutral fuels for heavy transportation
- Efficient use of limited biomass resources
- Integrating intermittent power sources in the grid

In our Nordic project we have a very practical approach to this challenging topic. With 10 companies in the project the main focus is on: “How can we start an early introduction?”. For example how can we introduce new fossil based fuels before 2020 and the gradually convert to a ‘green’ feedstock?

With ambitious CO₂ reduction strategies, large penetration of renewable electricity and widespread use of biomass, the Nordic countries are likely early adopters for these technologies.

In particular in Iceland there is a near term possibility to use relatively low cost electricity from renewable resources to double the yield of fuels produced from biomass.

The storage and distribution of electrofuels is vital for the introduction of these as alternative to conventional fuel grades. A realistic and evolutionary approach to the initial phase is therefore essential in planning the possible fuel change.

The project is case based and will in details analyze six specific cases with the purpose of proposing the best suited configuration and location of the first Nordic CO₂ electrofuel facility. These cases are:

1. Landfill gas in Iceland
2. Wood gasification to methanol
3. Methane from geothermal resources
4. Biogas in Scandinavia
5. Wood gasification to methane
6. Back liquor gasification to DME