



HYDROGEN FUELLING STATION ON HOLZMARKTSTRASSE, BERLIN TOTAL – Statoil – Linde

Expanding the fleet of hydrogen vehicles on the road and the hydrogen production and refuelling infrastructure are the two main objectives in Phase II of the Clean Energy Partnership.

By building the hydrogen fuelling station on Holzmarktstrasse in Berlin, TOTAL, Statoil and Linde are making a major contribution to the CEP's success, as the rapid availability of customer-friendly refuelling options is prerequisite to realising the planned vehicle fleets. The project is sponsored by NOW as part of the National Innovation Programme for Hydrogen and Fuel Cell Technology.

Technology

The new TOTAL – Statoil – Linde hydrogen fuelling station on Holzmarktstrasse represents state-of-the-art refuelling technology for sustainable mobility.

Production, compression and storage of gaseous hydrogen

- *Pressure electrolysis plant by Hydrogen Technologies (a Statoil subsidiary)*
- *Dry-running piston compressor (500 bar) by Andreas HOFER Hochdrucktechnik in cooperation with Statoil*
- *Booster compressor (1000 bar) by Andreas HOFER Hochdrucktechnik in cooperation with Statoil*
- *Underground cascade storage system of composite cylinders, developed by Statoil*

Production, delivery and storage of liquid hydrogen

- *Green hydrogen from a Linde biomass-to-hydrogen plant from Fall 2010*
- *Hydrogen liquefaction at Linde's industrial hydrogen liquefaction plant in Leuna*
- *Vacuum-insulated pressure tank by Linde*
- *Liquid hydrogen transfer pump (cryopump) by Linde*
- *Boil-off management system (for residual hydrogen)*
- *Micro CHP: evaporation losses caused by boil-off and residual hydrogen from liquid refuelling are converted into electricity and useful heat*

Refuelling

- *Refuelling system at 350 and 700 bar by Statoil*

- 1 gaseous hydrogen filling pump by Statoil:
350 bar for buses & cars
- 1 gaseous hydrogen filling pump by Statoil: 700 bar for cars
- Refuelling system for liquid hydrogen by Linde
- 1 liquid hydrogen filling pump for cars with LH₂ coupling and
mechanical handling aid by Linde

Other

- Photovoltaic array and wind towers (requested) for energy supply.

Sponsorship volume

- TOTAL: 1.5 million Euro
- Statoil: 2.6 million Euro

Contact us:

Linde: Carolyn Diehl
Phone: +49 89-35757-1324
E-mail: carolyn.diehl@linde.com

Statoil: Øistein Johannessen
E-mail: iosj@statoil.com

TOTAL: Delphine Saucier
Phone: +49 30-2027-6231
E-mail: delphine.saucier@total.de