



CO₂: CCU/CCR and P2X

4th International Workshop of the
Power Plant Technology Network NRW
Power and Heat for the Future

15th and 16th May 2017,
Lindner Hotel Airport, Düsseldorf, Germany



Invitation

Increasing shares of renewable energies in energy conversion and exploitation of energy efficiency potentials are key strategies to limit the increase of global average temperature by a maximum of 2 °C compared to pre-industrial level. In addition, other concepts can make a contribution, such as the re-usage of CO₂ from conversion and production processes for chemical products or together with excessive electricity for fuels, heat or power again. The workshop, organized by the Power Plant Technology Network of EnergyRegion.NRW together with Partners from Norway and the Netherlands offers the opportunity to update the information basis on CCU and Power-to-X, to establish new contacts, to discuss current issues directly, and to initialize joint activities and projects.

Prof. Dr. Manfred Fishedick, Wuppertal Institute for Climate, Environment, Energy

Prof. Dr. Klaus Görner, University of Duisburg-Essen

Margit Thomeczek, Power Plant Technology Network NRW – EnergyAgency.NRW

Programme

Monday 15th May, 2017, 12:15 p.m. - 5:00 p.m.

11:30 a.m. **Snack and Registration**

12:15 p.m. **Opening and Welcome Address**

Prof. Dr. Klaus Görner, University of Duisburg-Essen (DE)

Margit Thomeczek, EnergyAgency.NRW (DE)

Block 1 International Situation

12:30 p.m. - 2:30 p.m.

Requirements from Climate Policies, *John Scowcroft, Global CCS Institute (EU)*

CCS and CCU: Perspectives in the German Energy Research Programme, *Dr. Georg Menzen, Federal Ministry for Economic Affairs and Energy (DE)*

CCS: the Norwegian Way, *Prof. Niels Peter Christensen, Gassnova (NO)*

CCUS in the Netherlands – Recent Developments, *Gerdi Breembroek, Netherlands Enterprise Agency (NL)*

2.30 p.m. **Coffee Break**

Block 2 CO₂ Projects

3:00 p.m. - 4:00 p.m.

CCS-Testing in Mongstad, *Prof. Niels Peter Christensen, Gassnova (NO)*

PCC in Niederaußem - Phase 3, *Dr. Peter Moser, RWE (DE)*

Block 3 Industrial Activities I

4:00 p.m. - 5:00 p.m.

Projects for CO₂ Capture in Norwegian Cement Industry, *Per Brevik, HeidelbergCement (NO)*

CO₂ Capture with Carbonate Looping for Industrial Applications, *Prof. Dr. Bernd Epple, Technische Universität Darmstadt (DE)*

5:00 p.m. **End of the 1st Day**

Programme

Tuesday, 16th May, 2017, 9:00 a.m. – 3:00 p.m.

Block 4 Industrial Activities II

9:00 a.m. - 10:30 a.m.

CCU-Potentials in Industry in NRW, *Dr. Karin Arnold, Wuppertal Institute (DE)*

Carbon2Chem (project in steel industry), *N.N., thyssenkrupp Steel (DE) (requested)*

Selected Pathways towards a Reduced Carbon Footprint of the Steel Industry, *Jaap Vente, Energy Research Centre NL (NL)*

10:30 a.m. **Coffee Break**

Block 5 Industrial Activities III

11:00 a.m. - 12:30 p.m.

Applications and Framework Conditions for the Profitable Operation of CCU Systems, *Dr. Arthur Heberle, Mitsubishi Hitachi Power Systems Europe (DE)*

The Role of CO₂ in Sustainable Horticulture, *Erik Bax, AAB Nederland (NL)*

CCS - a Part of Statoil's Climate Roadmap, *Torbjørn Fossum, Statoil (NO)*

12:30 p.m. **Lunch**

Block 6 Elevator Pitches

1:30 p.m. - 2:45 p.m.

Projects from the Netherlands, Norway and Germany are briefly presented to show activities as a basis for further discussion and possible co-operations, i.e.

- **Fast (NL)**
- **Photanol (NL)**

Afterwards: Conclusions

Prof. Dr. Klaus Görner, University of Duisburg-Essen, (DE)

Margit Thomeczek, EnergyAgency.NRW (DE)

3:00 p.m. **End of the Conference Programme**

Organisation

A workshop of the EnergieAgentur.NRW Power Plant Technology of the Cluster EnergyRegion.NRW



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Registration

4th International Workshop “CO₂: CCU/CCR and P2X”, 15th and 16th of May 2017, Lindner Hotel Airport, Unterrather Straße 108, D-40468 Düsseldorf, Germany <https://www.lindner.de/en/duesseldorf-hotel-airport/welcome.html>

Online registration:

www.energieagentur.nrw/english/4rd_international_workshop_co2_ccuccr_and_p2x_power_and_heat_for_the_future

Registration Deadline: **8th May, 2017** (Please note, that the number of participants is limited)

For room reservations at **Lindner Hotel Airport** (business class single room for 129,- € incl. VAT and breakfast) please contact the Hotel directly per email (info.airport@lindner.de) or by phone (+49 211 447 55 100). Please name the **key word “CO2 Workshop”**. The offer is valid until 17th of April, 2017.

Conference fees

220.00 EUR plus 19 % VAT

150.00 EUR plus 19 % VAT for members of the Power Plant Technology Network and Partner Organizations

90.00 EUR plus 19 % VAT for members of universities, public authorities, students, pensioners

free for members of the press

The conference fees include the conference documents, meals and drinks during the workshop. After the workshop the presentations will be allocated to the participants. After your notification you will get the invoice with the confirmation.