

Accelerating the Heating and Cooling Transition



Joint Call 2021
Kick-off meeting of granted projects

Project presentation pitch

17 November 2021



CO₂inloop

Extended sector coupling systems of district heating and cooling technology using CO₂ as a heat transfer medium

Intro

- Georg Prem
 - BSc / project member / Reiterer & Scherling GmbH
- Consortium:
 - 4ward Energy Research GmbH (Consortium Leader)
 - Prozess Optimal CAP GmbH
 - Reiterer & Scherling GmbH
 - ArosTeknik Aps
 - Technical University of Denmark
 - Aalborg Forsyning

Challenges we are tackling

- Increase in heating and cooling demand
- Heating- / cooling-lines require insulation -> expensive
- 5GDHC faces limitations

Solution to be provided

- CO₂inloop = uninsulated lines but high energy density
- Suitable for sector coupling
- Simulations and analysis of status quo