

Rostock- Municipal Heat Planning and Cooperation Potentials „Energiehafen Rostock“

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- 1. Facts and Figures of Rostocks District Heating System**
- 2. Heat Plan towards NetZero in Rostock**
- 3. Collaboration and Leverage Effects from the Strategy Energiehafen Rostock**

Welcome to Rostock



Antje Sommer

- population: ~210.000
- size: ~ 181 km²
- Industry: Yara (fertilizer prod.),
Liebherr (heavy cranes)
EEW (OWT foundation)



DH in Rostock - A Factsheet



Net parameter:

~ 500 km operated by Stadtwerke Rostock

~ 536 MW power

~ 800 GWh/a (900 GWh/a in 2035)

~ 1800 GWh (DH + Natural gas)

75% CCPP + 25% coal (waste heat)

Municipal heat demand o.a.:

Heat sources as is:

DH connected households:

~ 60 %

DH municipal route in total:

~ 45 %

PtH added with a storage:

2 GWh, 45.000 m³

Heat Plan for Rostock



Why DH Transformation?

- Important step towards NetZero on municipal level
- Goal Climate Neutrality in 2035 (now 2045)
- 100% fossil fuel sources in 2019

Most important BCs:

- Socially acceptable (affordability)
- Sustainable
- Supply-secure

Heat Plan for Rostock

- 5 final DH generator parks for 98% climate neutrality
- Ad hoc declaration of so called „no regret actions“ → now FID success



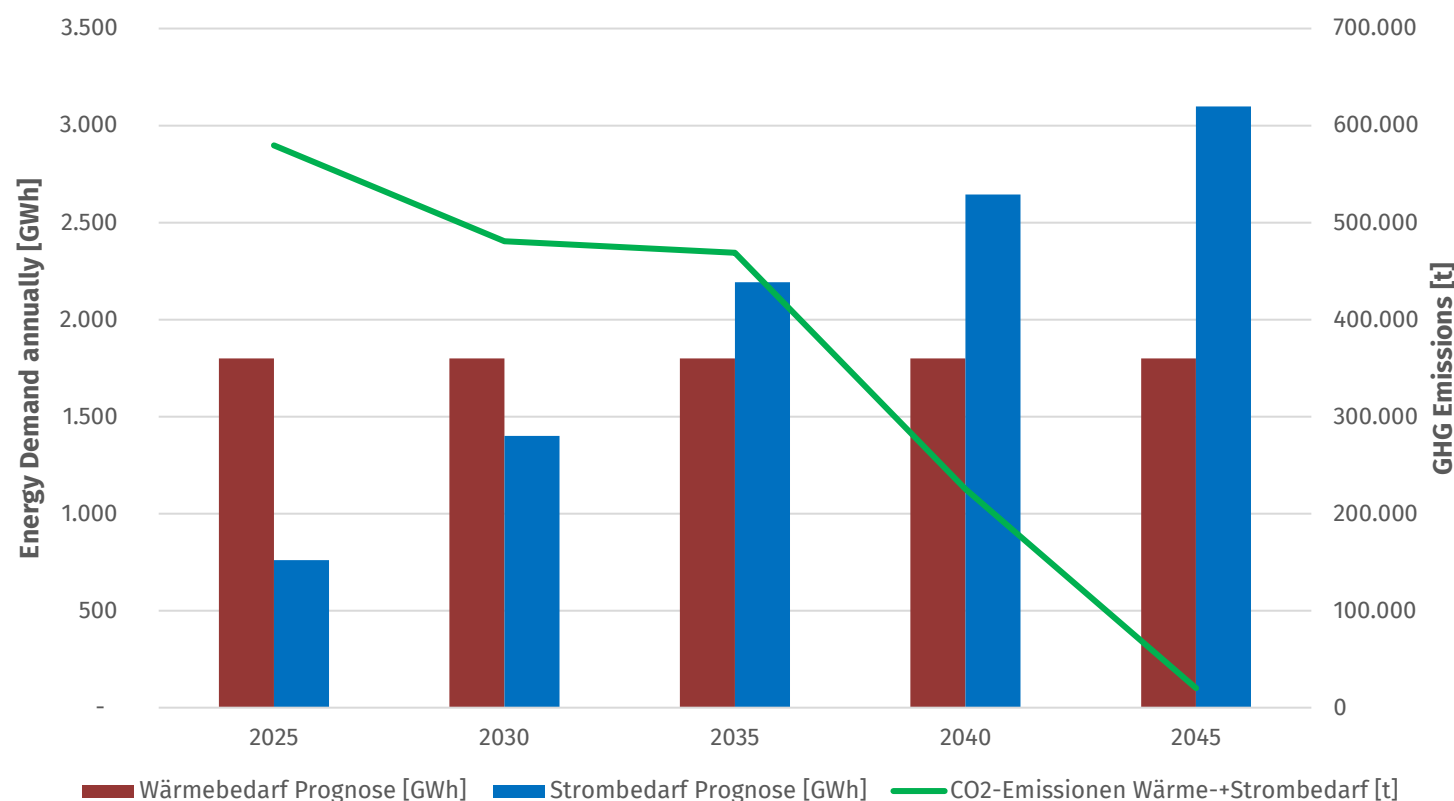
Local Energy Suppliers (Stadtwerke) transformation view in a nutshell

- ✓ DH decarbonisation possible – net infrastructure of 500 km and upcoming densification
- ✓ heat plan mandatory (2022) with focus on new/green sources



Rostock's Energy Big Picture - Forecast and Consequences

2025's forecast of municipal energy demand (heat/power) and GHG emissions



→ GHG path with increasing power demand at the same time need a holistic view and cooperations out of the box → "Energiehafen Rostock"

Interactive Leverage Effects

DH - Site Development

Strategy „Energiehafen“

Site infrastructure as is

-  Coal based power plant in transition
-  MV's largest industrial area
-  Regional RES cluster (OWT landing point)
-  Urban area greater Rostock
-  Robust Baltic sea port (No.4 in G)
-  NH₃ Industrial Enabler „Yara“

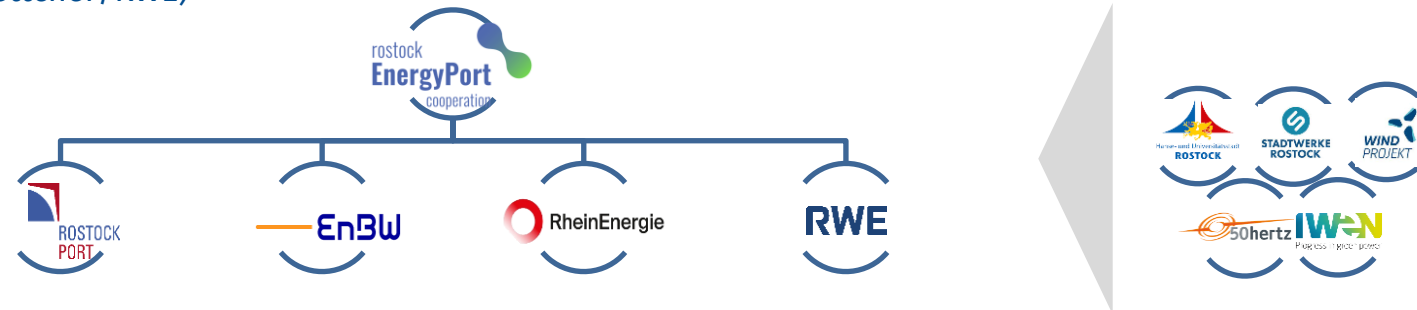


Interactive Leverage Effects DH - Site Development

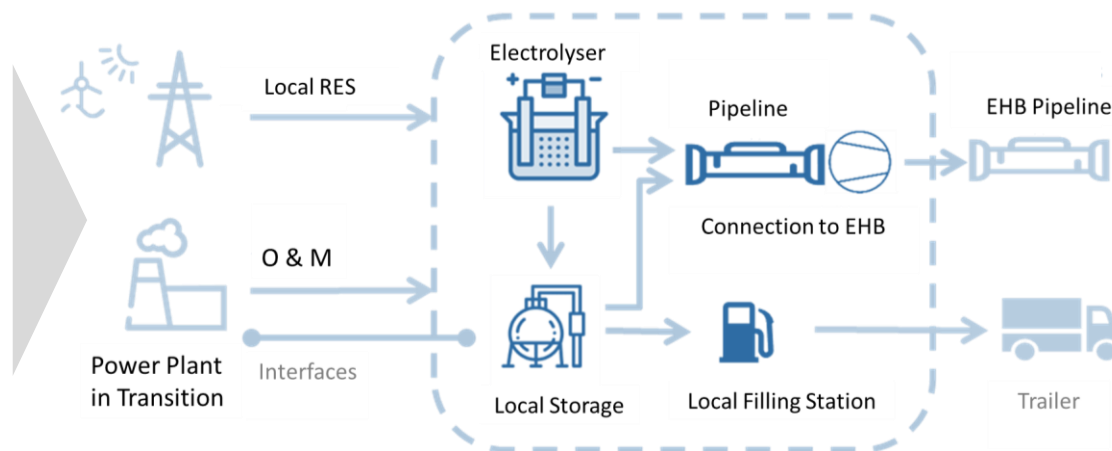
rostock EnergyPort cooperation GmbH

Shareholder & Management

(M. Wurzel/EnBW, Ch. Boettcher/RWE)



Scope



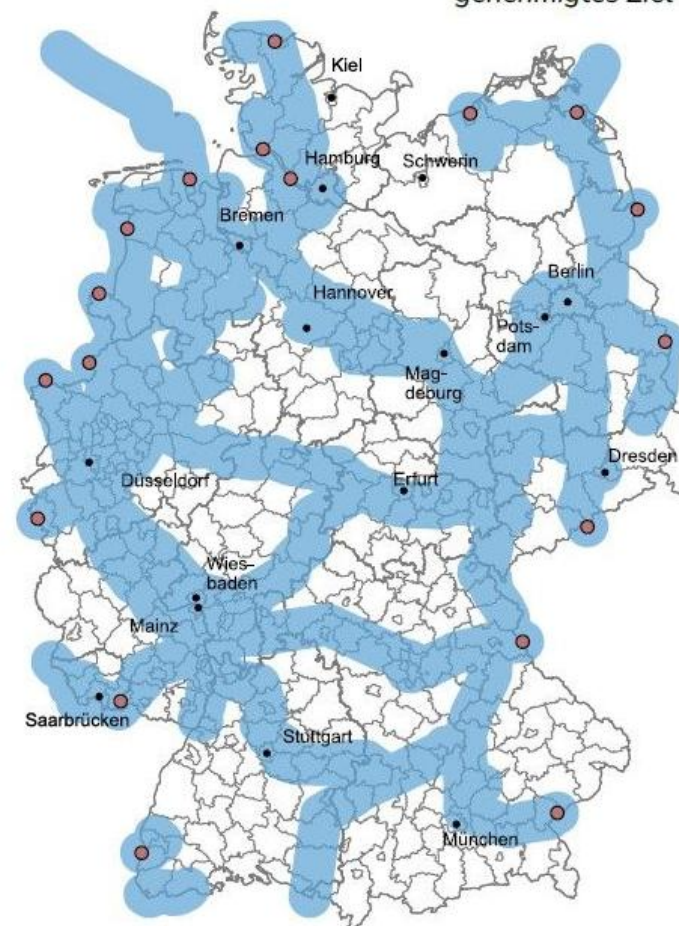
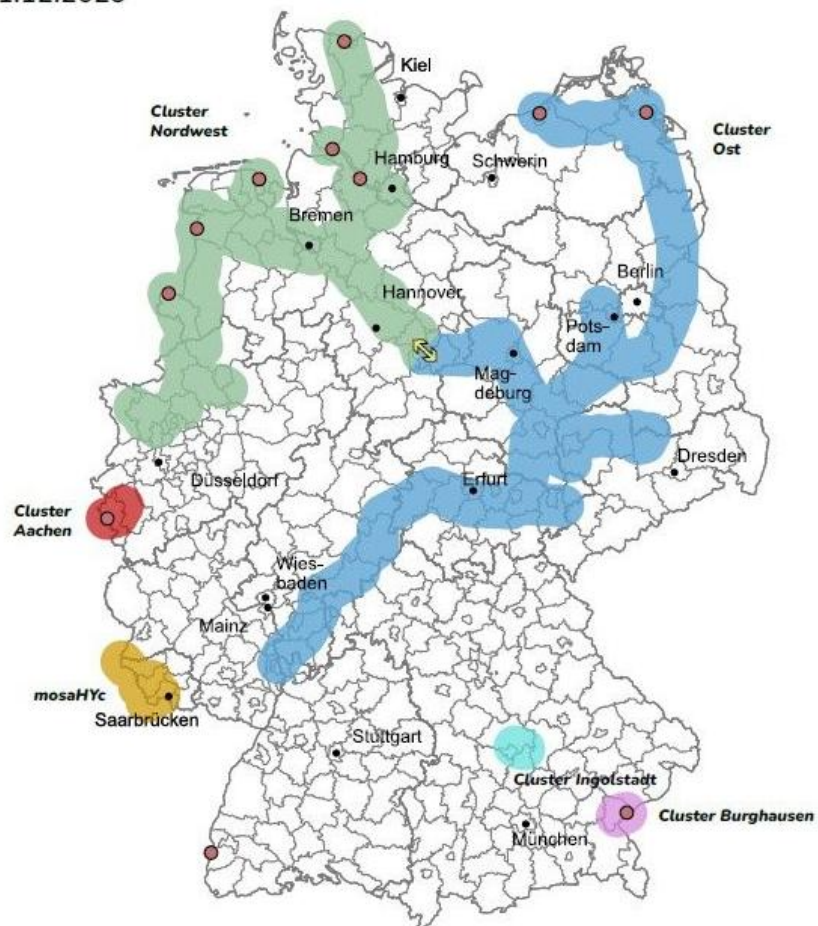
1. 100MW capacity
2. >> 6.300 t H₂ annually
3. XXX Mio € CAPEX
4. IPCEI Hydrogen

Greater Rostock is set to be crucial part of EHB

Piping Infrastructure

31.12.2029

genehmigtes Ziel-Kernnetz



⇔ Clusterübergangstransport ● Grenzübergangspunkte & H2-Terminals

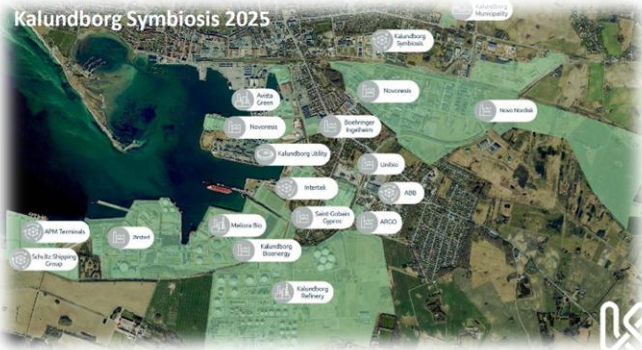
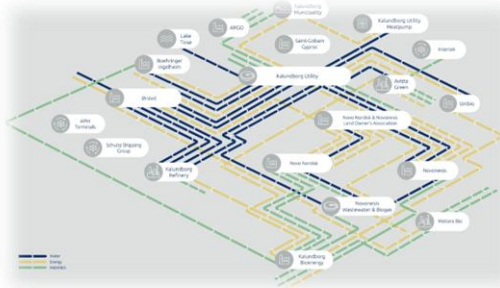
Cooperation Paths on Site Level

Industrial Site Development with Greenification ☺

Kalundborg Symbiosis

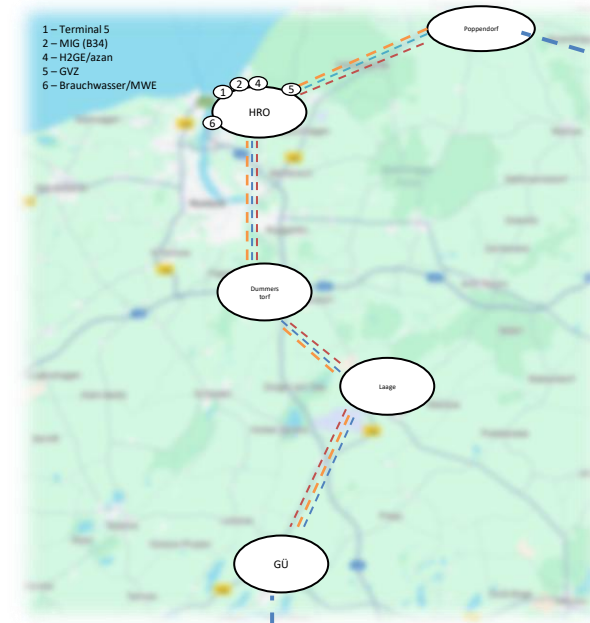


- Circular Economy
- Chemistry Anchor
- Innovation Centre
- Port Access
- Governance Structure
- High Wage Level



Rostocker Perlenkette

- FID for Local Hydrogen Pioneers (at least 2-5 in GR)
- Governance Structure enabling Site Development
- Hydrogen Derivatives Manufacturer
- Industrial Settlement
- Process Water as Circular booster



Thank you for
your attention!

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