


















German energy transition – business opportunities in North Rhine-Westphalia

Verena Falb, International Relations, EnergyAgency.NRW



Important business partner: Sweden as climate protection pioneer

Climate Change Performance Index – Rating table

Rank		Country	Score**	Categories
1.*	-	-	-	
2.	-	-	-	
3.	-	-	-	
4.	-	Sweden	74.42	
5.	▲	United Kingdom	69.66	
6.	▼	Denmark	69.42	
7.	▼	Morocco	67.59	
8.	▲	Norway	65.45	
9.	▲	Chile	64.05	
10.	▼	India	63.98	
11.	▼	Finland	62.63	
12.	▲	Malta	62.21	
13.	▲	Latvia	61.88	
14.	▲	Switzerland	60.85	
15.	▼	Lithuania	58.03	
16.	▲	European Union (28)	57.29	
17.	▲	Portugal	56.80	
18.	▲	Croatia	56.69	
19.	▲	Germany	56.39	
20.	▼	Ukraine	55.48	

Index Categories

- GHG Emissions (40% weighting)
- Renewable Energy (20% weighting)
- Energy Use (20% weighting)
- Climate Policy (20% weighting)

Source: Climate Change Performance Index (CCPI)

Business Opportunities in Germany

Why?

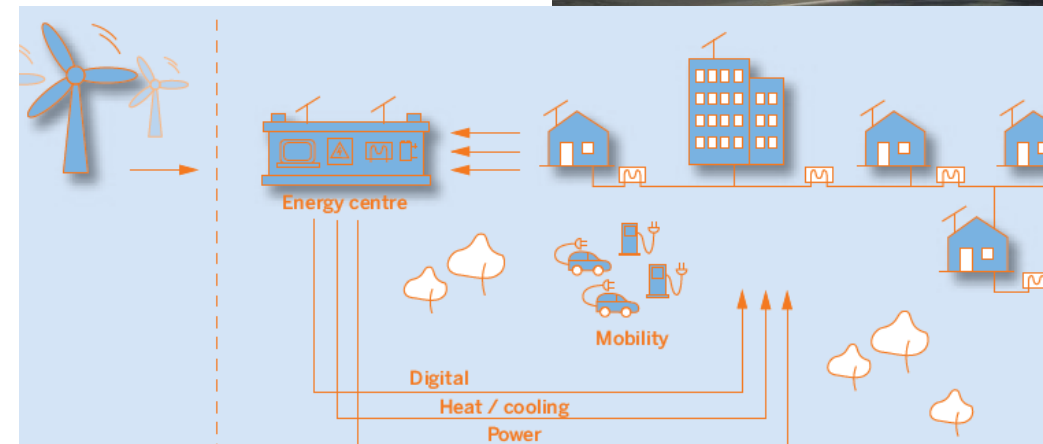
- So far: German energy transition focused strongly on electricity market
- Now: challenge to transform heating, transport and industry sector

Incentives:

- **EU:** Green deal / European directives, ...
- **Germany:** CO₂ price system introduced for heat and transport sector in 2021, Renewable Energy Act (EEG), Hydrogen strategy, funding programmes, ...
- **NRW:** state programmes, strategies and funding schemes
- **Local:** smart city incentives, funding programmes, ...
- **Business:** more green investments, cPPA, ...

Business Opportunities in Germany / NRW

- Climate-friendly **mobility** solutions (18 millions NRW inhabitants)
- Climate-friendly **heat** market, district heating
- More **renewable power** production:
 - Wind energy: 10.5 GW in 2030 in NRW (2018: 5.8 GW)
 - PV: 11.5 GW in 2030 in NRW (2018: 4.9 GW)
- **System integration**
- **Storage** solutions / Power-to-X / Flexibilisation
- ➔ **Hydrogen**: 5 GW Green Hydrogen by 2030 in Germany
- **CO₂ neutral industry**
- **Energy Efficiency**
- **Digitalisation**
- ➔ Smart Grids / Metering
- **Urban solutions**: Climate mitigation



100 Climate Protection Estates in NRW

- **target:** Reduction of heat-related CO₂-emissions in residential estates & reduction of energy costs
- new buildings & refurbishment
- all technologies that are suitable for CO₂ reduction can be used
- innovative energy concept, special urban planning, architectural and social qualities
- coordinated by: EnergieAgentur.NRW
- financial support: State of North Rhine-Westphalia

www.energieagentur.nrw/gebäude/klimaschutzsiedlungen



Gelsenkirchen

Climate Protection Estate Hürth: One of the largest passive house projects in Germany



source: Görres und Partner Architekten, Köln

312 new apartments for students
(University of Cologne is located nearby)

Energy Concept:

- Passive house standard
- Central ventilation systems with heat recovery
- District heating with support of solar thermal systems
- Photovoltaic systems with 105 kW_p

→ 10,000 people already live in 53 climate protection estates in NRW

→ Once all estates have been completed, around 25,000 people will live there

H2 Roadmap NRW (2020)

H2 as ...

- basic material for energy-intensive industry
 - fuel for trucks, buses, ships, aircraft and cars
 - supply-secure electricity and heat production
- ➔ Up to 130,000 jobs, especially in supplier industry



2025: 500 FC buses for public transport

2030: 3,800 FC buses for public transport (45 %)



Source: RVK

Source: WSW

Projects JIVE: Regional Transport Cologne

Projects JIVE: Stadtwerke Wuppertal

- 50 buses in operation or on order
- Involved in testing since 2011, Starting point by-product hydrogen

- 20 buses in operation or on order
- Green H2 from electrolysis with waste-to-energy plant

Events 2021

- **Webinar: The European Green Deal - How can sustainable business and financing succeed for companies?**
18th February 2021
- **E-world 2021: Swedish-German Sustainability Forum – cooperation as key success factor for Agenda 2030**
5 May 2021, Trade Fair E-world in Essen, Infrastructure Forum
- **Webinar: Financing sustainable projects in Scandinavia**
24 June 2021
- **NRW business trip – energy market Sweden (NRW.Global Business)**
Autumn 2021, Stockholm, North Sweden or Gothenburg // virtual

More information: www.energieagentur.nrw/international



Thank you for your attention!



Verena Falb

International Relations

+49 (0)211/86642 242
falb@energieagentur.nrw

Rossstrasse 92
40476 Düsseldorf
www.energieagentur.nrw/english



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