

SECTOR COUPLING – A SUCCESSFUL CLIMATE PROTECTION TOOL FOR BERLIN?

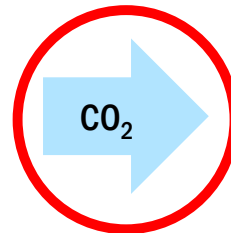
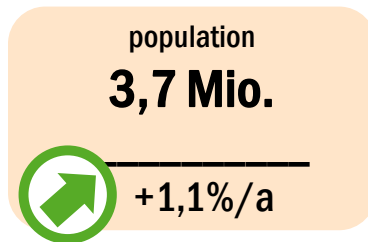
Global Ministerial Conference on System Integration of Renewables | 1st of October 2019

Dr. Gerhard Holtmeier – CEO GASAG Group

**NEU DENKEN.
MIT VOLLER ENERGIE.
GASAG**

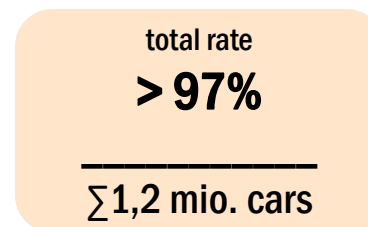
sector coupling: necessary tool for the energy transition?

Berlin´s population is growing,
CO₂-emissions stagnate



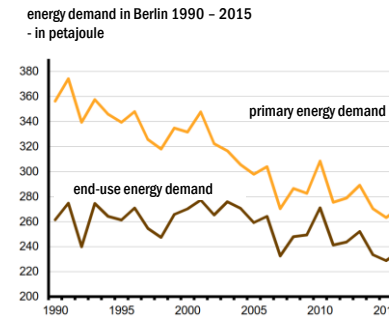
Source: Department for Statistics Berlin-Brandenburg (2017)

diesel and gasoline are by far the dominating fuels for cars



Source: Tagesspiegel (2018)

energy efficiency is improving, but renewables are still underrepresented



share of renewables in
primary energy demand

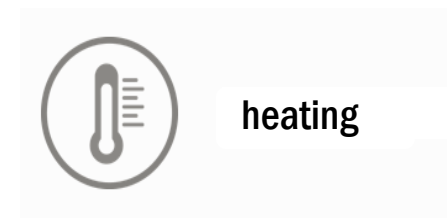
4 < %

share of renewables in end-
use energy demand

1,7 < %

Source: Statistical Report (2016)

high energy renovation potential
in the building sector



renovation rate

< 1%

oil heating systems

> 66.000

Source: Chimney sweeper guild in Berlin (2018)

sector coupling 1.0: urban energy concepts based on CHP



residential district energy solutions - Maximilians Quartier

- 970 residential units in Wilmersdorf
- district energy linkage with e-charging infrastructure, **4 CHP plants** and on-site electricity and heat production and consumption

innovative urban energy solutions – EUREF Campus

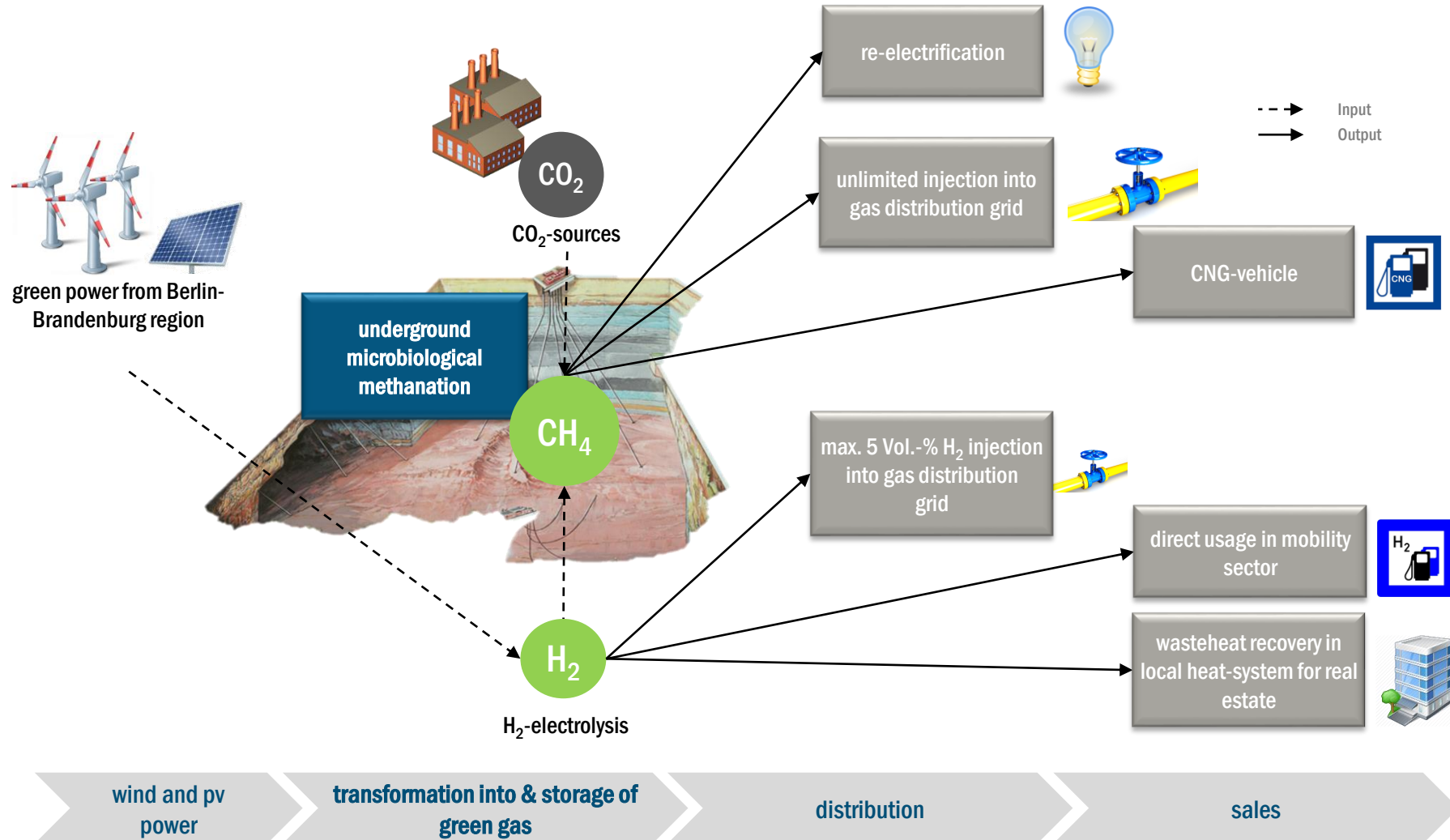
- 5,5 ha urban district, final expansion to about 165,000 sqm
- distribution of **biomethan-CHP** based heat and electricity
- commissioning of first **power-to-heat-/ power-to-cool-plant** in Germany in 2017 by GASAG Solution Plus



geothermal city energy - Stresemannstraße

- energy provision to an office building with 12,000 sqm by 32 production wells in 99 metre depth
- complex engineering with heating pumps, **CHPs** and calorific value boilers by Geo-En Energy Technologies GmbH

sector coupling 2.0: connecting energy regions via power-to-gas



Thank you for your attention!

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