Our Gas Grid
Well done for Hamburg!

Future-oriented gas supply and use of LNG

LNG Value Chain Conference, Hamburg, February 7 2019
Gasnetz Hamburg

Our mission
What we want to achieve

Affordable, sustainable contributions for climate protection and energy transition in Hamburg

Our claim and role for the energy in Hamburg

Our claim
We are creating a good climate for Hamburg with a secure and greening gas grid.

Sector Coupling
We integrate regeneratively produced gases into our gas grid. We use the potential of the gas grid for the energy transition in mobility and heat sectors together with the industry and municipal partners.
Development of evolutionary infrastructures

I - District concept for evolutionary hydrogen infrastructures

- **Step 1**
  30% hydrogen (origin to be clarified)
  70% natural gas (or even biogas)

- **Step 2**
  Gradually increasing the amount of hydrogen (depending on availability, price, life cycle, capability of end devices)

- **Step 3**
  100% hydrogen

II – Sector Coupling for the admixture of hydrogen / e-gases into the gas grid

Source: Hafen City Hamburg GmbH; © Hosoya Schaefer Architects
First successes of LNG, still open potential

The German LNG truck market develops slowly

Potential analysis / Taskforce since 2015

3 years later (2018) there are still open demands and instruments concerning the market development

- LNG-Hybrid-Barge (port power) world premiere in 2015, but not in use since then
- LNG gas station since 09/2018
- LNG AIDAnova 2018; 2 more ships until 2023
- Examination of LNG applications

Open: Location / Acceptance for LNG Terminal

- Three optional locations for potential LNG terminal
- Protest against “Fracking-Gas-LNG Terminal” with more than 67,000 signatures, 31. Jan. 2019
LNG market for ship /truck traffic after 2050?

Promotion of maritime LNG use as „bridge technology“
- Northern Germany: open approach to reducing emissions-related pollution
- Support of LNG as bridge technology for
  - environmental / climate compatibility
  - air pollution control on sea / in port
- Complementary alternatives
  - LNG for ships on the move
  - shore power connections in ports

Question: LNG or hydrogen in trucks?
- Benefits of combining LNG with synthetic fuels / green hydrogen
- Rather LNG as “transition technology” than waiting for a great future solution

Where is the position of LNG in the fuel-energy mix after 2050?

- Today, LNG is the only marketable alternative for road / long distance
- BUT: No achievement of the climate targets in heavy goods transport without synthetic fuels

Source: dena, 03/2018
- Successful energy transition for heavy goods transport by road and water will not be possible without synthetic fuels or H2 / fuel cell drives.

- Energy carrier mix ↔ hydrogen / e-gases in green grids ↔ synthetic LNG.

- Gasnetz Hamburg is a solution partner for evolutionary infrastructures and the transformation of energy systems.
Let’s get it done
we like to cooperate