



Energy Community

18th Gas Forum

A barrier for possible decommissioning of gas infrastructure

The conversion of industrial gas consumers to electricity, where technically possible, would pose considerable challenges for the electricity grids

DSOs deliver 50% of gas in energy consumed by industrial users - Industry consumes 31% of all gas consumed in the EU (final energy consumption)

	Share of gas in industry	DSO	TSO
Netherlands	60%	25%	75%
Czech Rep.	58%	90%	10%
Denmark	53%	100%	0%
Germany	50%	62%	38%
Spain	47%	99%	1%
Austria	40%	100%	0%
France	37%	46%	54%
Belgium	37%	35%	65%
Italy	33%	36%	64%
Switzerland	26%	85%	15%

Source: member data and Frontier 2019

Bottom-up : the perspective for possible developments of local energy infrastructures

Only detailed bottom-up planning delivers the right facts and figures to develop integrated local energy infrastructures that fit in cities & regions

Dimension I

Which energy sources are available?

- Renewable electricity, waste heat, H2, Biomethane, low carbon gases, geothermal
- Local natural storages

Dimension II

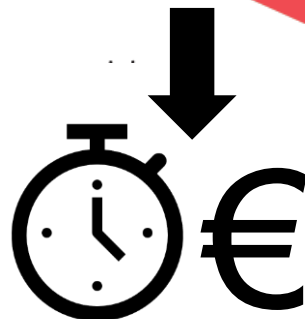
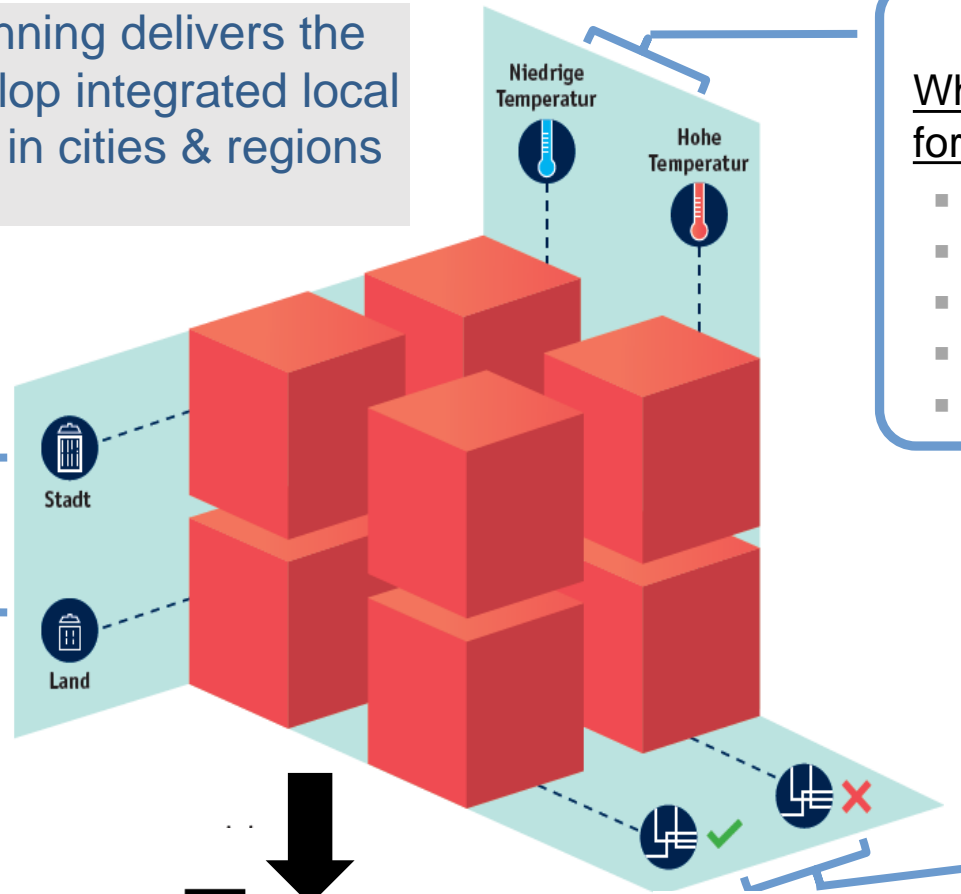
Which requirements do customers have for the use of energy?

- Heat
- Temperature-Level
- Technological use
- Mobility
-

Dimension III

Which infrastructures exist?

- District heating grid
- Gas grid, hydrogen grid
- Electricity grid



Regulatory perspectives for decommissioning of parts of natural gas infrastructure as an outcome of local energy infrastructure planning

If parts of the distribution system require decommissioning, as a result of local energy infrastructure planning, in particular before the end of their originally projected useful lifecycle, and will not be repurposed for the distribution of hydrogen, then :

- Member States shall ensure **regulatory guidance** from the regulatory authorities;
- Member States shall ensure **financial support** measures for distribution system operators, taking into account security of supply, the affordability of network tariffs and environmental requirements;
- DSOs shall propose measures to the NRA to **equitably allocate the efficient costs** of the assets over their remaining lifecycle;
- NRA shall develop **guidelines for a structural approach to the depreciation** of assets, including adjusting the depreciation profile or timeline of the assets.

A roadmap for gas distribution networks to help achieve REPowerEU ambitions and net zero

Societal drive to decarbonise: European and national net zero targets

Now

We have various starting points:

- Over 2 500 DSOs in Europe – supplying a variety of customer groups
- Different gas demand profiles in different countries
- Varying future biomethane availability in different countries

But we share common values:

- Trustworthy and reliable supply, with very few interruptions
- Flexible hubs connecting distributed supply and demand
- Providing seasonal scale to deliver winter heating
- Innovation and digitisation to connect biomethane and prepare for hydrogen

We commit to action in 3 areas

Facilitate hydrogen market development

Offer access to hydrogen for consumers

Offer hydrogen producers a route to market

Build confidence in hydrogen

Transform our networks

Complete network repurposing and undertake targeted new build to ensure capacity

Continue to make our networks digital and smart

Convert our networks to net-zero based on detailed roll-out plans

Deliver at scale

Deliver pilots in communities and targeted industry clusters

Attract and retain qualified workforce, upskill for hydrogen

Prepare for additional roles and responsibilities

Enablers that help local gas distribution networks to make the transition

Infrastructure and technology for hydrogen

Supply from H2 backbone, storage and local production

Conversion of existing end users and new end users

Fit for purpose policy & regulatory framework

National hydrogen strategies and enabling regulation

EU policy framework

2045

One achievable goal:

Be the leading hydrogen distribution infrastructure to achieve net-zero across Europe

Current phase 2: deliver the Roadmap in the various countries