

Press Release

Energy transition with green gas helps low-income households

- E.ON study shows that using existing gas networks is the best form of climate protection in the heating sector
- Digital twin of the city of Essen created for making forecasts
- Future scenarios for the energy transition should be developed at regional level

Using existing gas networks to transport green gas such as hydrogen in the future is the most cost-effective and socially balanced solution for the energy transition in the heating sector. That's the conclusion of a modelling study conducted by E.ON and the municipal utility Stadtwerke Essen. The companies used the DigiKoo data platform to create a digital twin of the city of Essen to model different future heat supply scenarios.

"We can only meet our climate targets if we manage to significantly reduce our carbon footprint in the heating sector," said E.ON board member Leonhard Birnbaum. "Using the existing gas networks for this purpose is not only the most socially acceptable, but also the most economical solution because it avoids costly refurbishments and hence rent increases. We want to gradually integrate green gases into the energy system which requires an appropriate political framework, for example in the form of a quota for climate-neutral gases."

Overall, the modelling is based on five different scenarios, including a gradual switch to green gas in the existing natural gas grid. This switch is the option that will put less pressure on people's wallets and also allow urban areas to meet climate targets as efficiently as possible.

Other options explored with the digital twin of the city of Essen included the switch to heat pumps, further densification of district heating, the use of direct electric space heating as well as hybrid heat pumps. The results for Essen in all scenarios show that a solution entirely without gas is not realistic and, in many cases, will shift the costs of the energy transition to low-income neighbourhoods, whose residents would be forced to shoulder excessive financial burdens as a result.

An analysis such as the one carried out by E.ON and Stadtwerke Essen for the city of Essen can be of great value to municipalities, distribution system operators and real estate companies in Germany and internationally. The digital twin allows the major, overarching climate protection goals to be broken down regionally – down to each individual building. This helps municipalities to find the right

E.ON SE
Brüsseler Platz 1
45131 Essen
www.eon.com

For information please contact:

Alexander Ihl
T +49 2 01-1 84-42 24
alexander.ihl@eon.com

January 21, 2021
Page 1 / 2

2 / 2

strategies for cutting carbon emissions and to implement them together with their citizens.

This press release may contain forward-looking statements based on current assumptions and forecasts made by E.ON Group Management and other information currently available to E.ON. Various known and unknown risks, uncertainties, and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. E.ON SE does not intend, and does not assume any liability whatsoever, to update these forward-looking statements or to align them to future events or developments.