

Gasunie in a transitioning energy market

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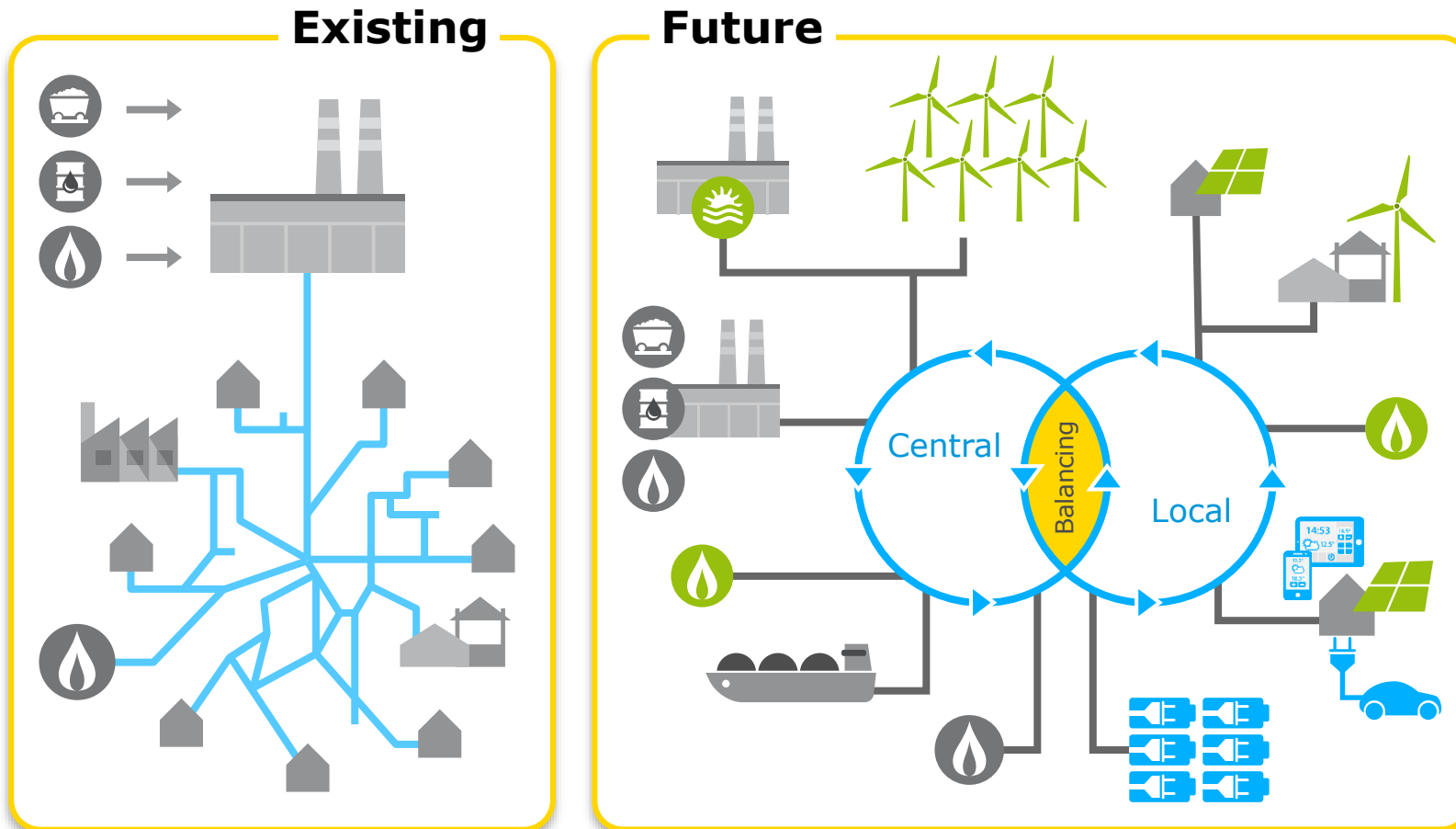


About Gasunie

- European Gas Infrastructure Company, transporting gas in the Netherlands and northern part of Germany
- Two subsidiaries manage gas transmission grid, Gasunie Deutschland and Gasunie Transport Services (GTS). Network of 15.500 km with about 125 bcm of gas transported per year. Regulated business is fully ownership unbundled
- Provision of gas storage services (EnergyStock), interconnector to the UK (BBL) and LNG Terminal in Rotterdam (GATE), business participations, incl. NS1 and increasingly new energy projects on Biomethane, Hydrogen and CCS.

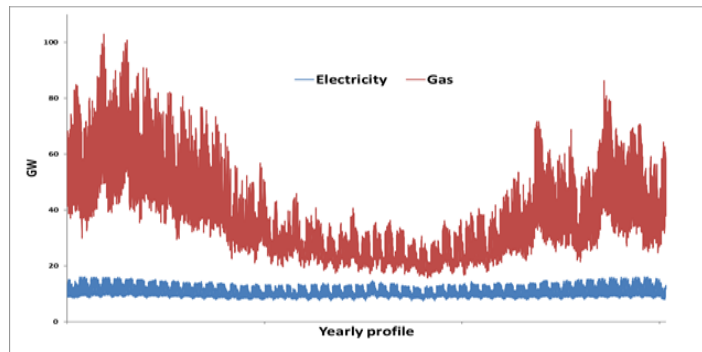


COP21 climate goals: towards an integrated energy system



P2G as the linking pin

Energy imbalances



Transport



Storage



A hydrogen hub in the North Netherlands

A solution for huge fluctuations between supply and demand



Wind farms

Solar farms

From electricity...

...to hydrogen...

Electrolysis: separating water into hydrogen and oxygen

...to storage...

Underground gas storage Zuidwending
Hydrogen storage in salt caverns

...to consumers

Methanation:
CO₂ from the air reacts with hydrogen to form syngas which can be injected into the natural gas network

Blending H₂ into the natural gas network

Conversion into electricity

Hydrogen fueling stations

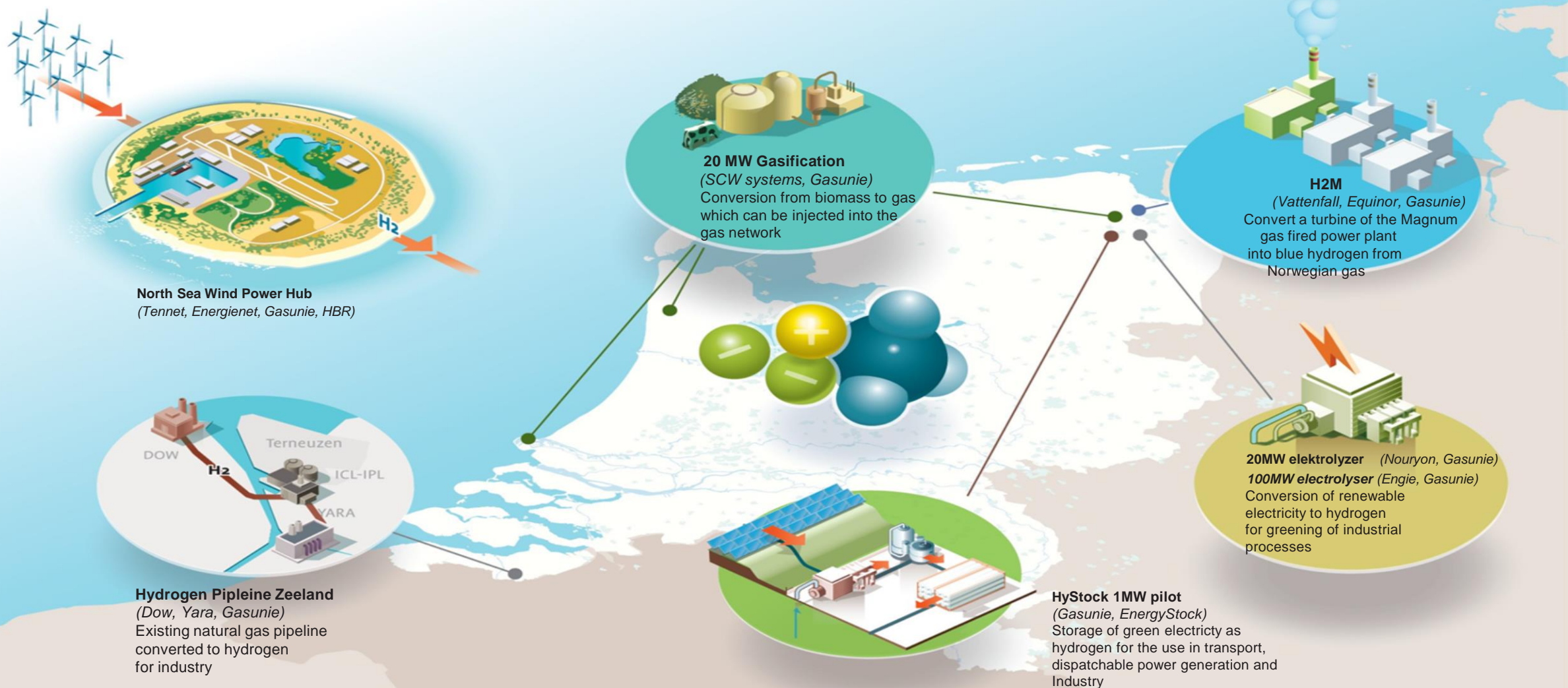
Houses

Transport

Industry

From 2019:
cable for surplus Danish wind energy

Green power from Germany



questions?