

## Green Gas Initiative by 7 European TSOs

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# Green Gas Initiative

## The Green Gas Initiative (GGI): Towards a 100% CO2 Neutral Gas Supply

- Seven independent gas infrastructure companies
- Commitment: objective CO2 neutral gas supply by 2050
- Open to gas infrastructure companies who want to commit to 2050 objective
- Activity areas: biomethane, power to gas and gas in transport
- Each company has its particular expertise and approach
- Interaction: sharing knowledge and stimulate to develop know-how



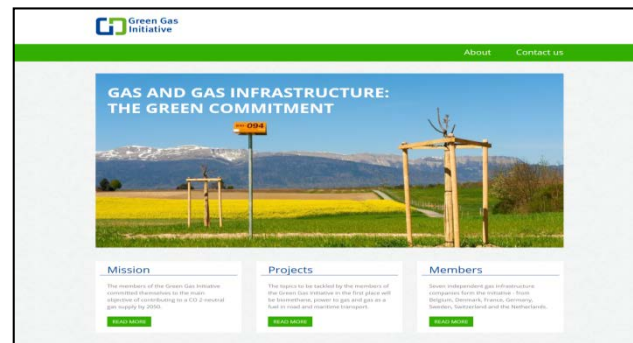
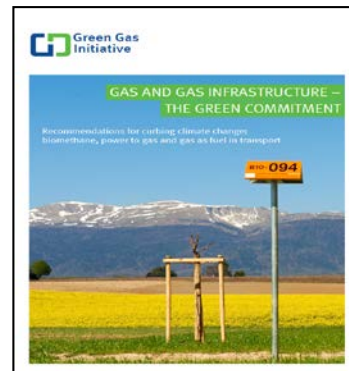
# Main routes to a CO<sub>2</sub>-neutral gas supply in 2050

Common goal – approach and mix of activities varies per country

- Increasing the share of green gas through fermentation and gasification
- Providing flexibility to the energy system
  - Back-up when renewables are not available
  - Efficient storage medium in case of surplus of electricity (power-to-gas)
- Cross border exchange of renewable gas by making use of internationally accepted green certificates
- Substituting oil by (bio)CNG in personal transportation and by (bio)LNG in the heavy transport sector
- Employing Carbon Capture and Storage (CCS) in the long run
- Innovation will lead to new techniques to reduce CO<sub>2</sub> emissions from natural gas

## Green Gas Initiative is going public

- Publication of joint report “Gas and Gas Infrastructure – The Green Commitment”
- Insight into current projects, point out achievements and give recommendations for curbing climate change
- Website launched: [www.greengasinitiative.eu](http://www.greengasinitiative.eu)

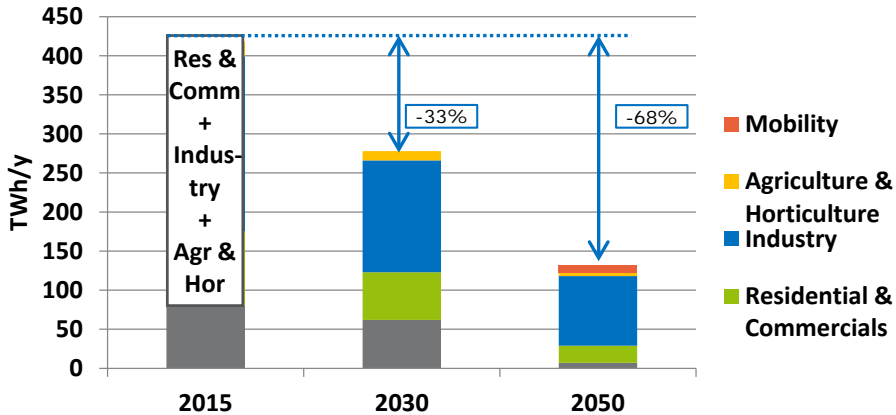


## Carbon neutral energy supply system in a Dutch context

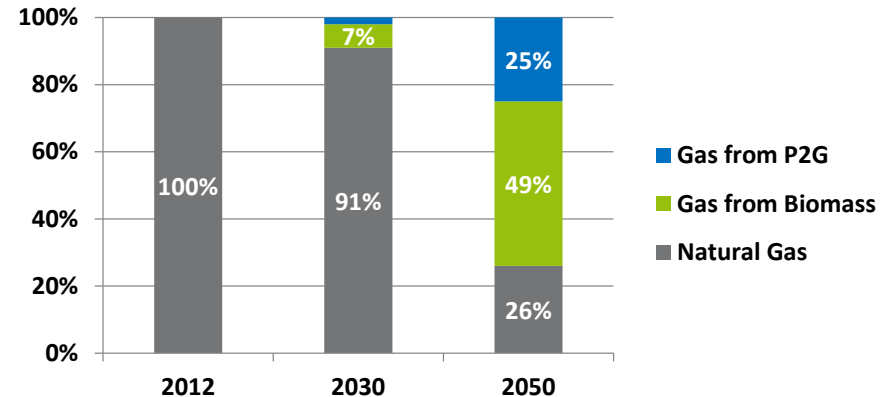
- 2015: Energy Report - *Transition to sustainable energy*
  - How to achieve a CO<sub>2</sub> neutral energy supply system by 2050?
  - Discussions with stakeholders in broad energy field, policy makers and NGO's
- 2016: Energy dialogue – towards a new energy policy
  - We take an active part in the Energy dialogue with knowledge and visions
    - Total energy demand in 2050 will decline with 40% compared to 2012
    - Massive installation of wind and solar and conversion of (temporary excess of) electricity
    - Use of substantial amounts of biomass
    - Strong reduction of heat demand, installation of heating networks and hybrid heat pumps

# Gas remains important part of the Dutch energy supply, but volumes will decline

Domestic gas demand



Gas mix development Netherlands



## Gasunie contributes by implementing various green projects

- Development Green-gas Booster: transfer green gas between networks to manage oversupply
- LNG break-bulk facility Gate terminal (Port of Rotterdam): facilitating LNG as a clean and affordable fuel for the transport sector
- Hydrogen transport via Gasunie gas network (Zeeuws-Vlaanderen)
- Innovative gasification technologies for biomass (Milena, Torrgas)
- Certification of green gas (Vertogas)
- Large-scale heat projects / hybrid heat pumps



**Thank you for your attention!**

