

Ministry of Economic Affairs  
and Climate Policy

## Energy transition in the Netherlands – phasing out of gas

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## Outline of Dutch Energy Policy

- > Energy Report and Agenda (2016)
- > Coalition Agreement New Cabinet (2017)
- > Phasing out Groningen Gas Production by 2030 (2018)
- > Climate Agreement (2018)



## Energy Report 2016: Long Term Perspective

### *Ambition*

Transition towards a low-carbon energy economy that is safe, reliable and affordable as follow up of Paris Climate Agreement, December 2015.

### Strategy:

- > Focus on reducing CO2 emissions.
- > Support innovation and seize economic opportunities.
- > Energy integrated part of spatial planning.
- > In an international context.
- > Introducing Energy Functionalities:
  - spatial heating (low temperature heat): replace natural gas by other sources of heat;
  - industrial process heat (high temperature heat): redesign of industrial processes, CCS;
  - transport: bio-fuels, electronic vehicles, strict emission standards;
  - power and light (electricity generation): solar and wind energy.
- > To be developed further through Energy Dialogue with the public, businesses, NGOs and government authorities.

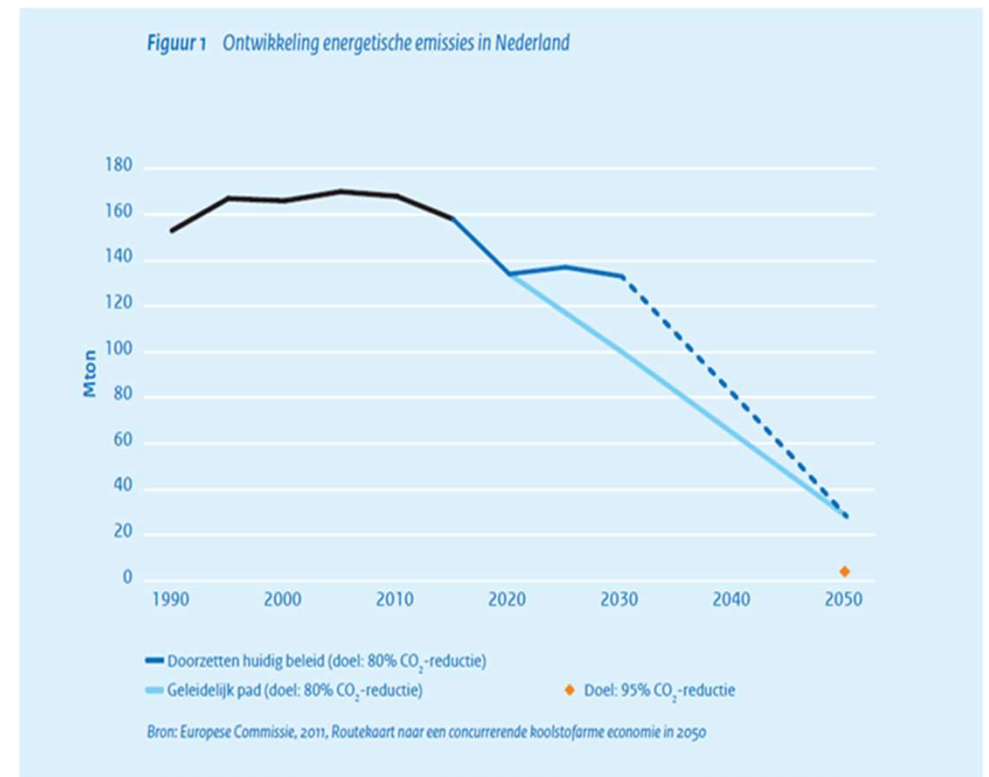


## Energy Report + Energy Dialogue with stakeholders and society => Energy Agenda

Energy Agenda: towards a low-carbon energy supply:

- > One single goal: reducing emissions of greenhouse gases => most cost-effective way to achieve the aim of the Paris Agreement.
- > Timely and more gradual energy transition.
- > Therefore: accelerating efforts ('carrots and sticks').
- > ETS should be strengthened substantially:
  - yearly tightening of the reduction percentage;
  - reduce the surplus of allowances.
- > Elaboration of tasks on the 4 energy functionalities along 'transition paths' in order to achieve 80-95% CO<sub>2</sub>-reduction in 2050.

Development of energetical emissions in Netherland





## Coalition Agreement New Cabinet (2017)

### *National Strategy:*

- > Conclude a Climate Agreement based on 49% CO<sub>2</sub>-emission reduction in 2030.
- > Climate Agreement involves civil society organisations (companies; NGOs) and representatives of local communities and provinces. Should lead to public support as well as sharing responsibilities for the implementation of measures to be agreed upon in the Climate Agreement.
- > Target of -49% (= 48.7 Mton) is divided over five sectors: industry (14.3), mobility (7.3), built environment (3.4), electricity production (20.2), and land use and agriculture (3.5).
- > Outline of the Agreement shall be incorporated in the (new) Climate Act:

### *International Strategy*

- > Pledge in European Union for a higher ambition of 55% CO<sub>2</sub>-emission reduction.
- > If not feasible, NL will strive for this increased ambition together with like-minded NW-European countries.

### *Selection of measures:*

- > Broadening scope of the subsidy scheme for renewable energy production, also to include CCS
- > Further expansion of offshore wind
- > Shift in energy taxation (gas up, electricity down)
- > Closure of all coal fired plants in 2030 at latest
- > National CO<sub>2</sub>-price floor
- > No more natural gas heating for new buildings as of 2020

(N.B. the Dutch Government Coalition is comprised of four (!) parties.)

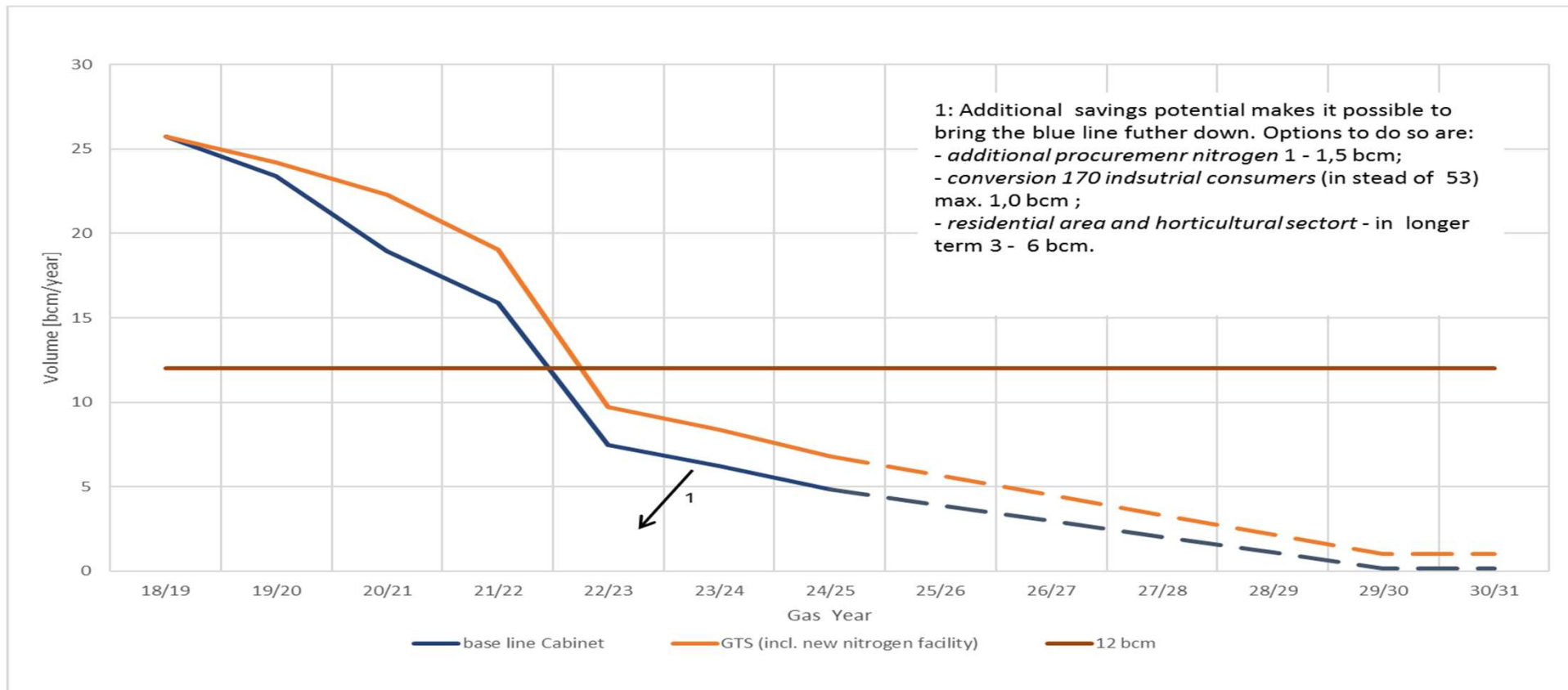


## Phasing out Groningen gas (March 2018)

- > 8 January 2018: Earthquake near the village Zeerijp, in the Loppersum area, the most earthquake sensitive area of the field. Also the area where production was reduced to max 3 bcm/year, and only to meet peak demand.
  - Magnitude of earthquake: 3.5 on Richter scale.
  - 5654 damages reported
- > Due to continuing induced earthquakes and increasing number of damages, Dutch Cabinet decided to phase-out gas production from the Groningen field with the aim to come to a complete stop in 2030.
- > In order to achieve this the following measures are taken:
  - Construction of an additional nitrogen facility by GTS. Savings potential: 5 – 7 bcm.
  - Procurement of additional nitrogen for one of the existing facilities. Savings potential: 1 – 1.5 bcm.
  - Conversion of large (industrial) users of L-gas to other sources of energy (H-gas, electricity, renewables). Savings potential: 2.3 – 4.4 bcm, depending on number of large users that will be converted.
  - Discussions with L-gas importing countries on additional options to reduce their demand. Savings potential: 1.5 – 3 bcm.
  - Phasing out of gas from the residential area and the horticulture sector. Savings potential: 3 - 6 bcm in the long run.
- > Intermediate steps:
  - Gas Act has been adapted to prohibit the connection of new houses and buildings to the gas grid.
  - The Gas Act and Mining Act will be adapted to enhance the safety of the inhabitants of Groningen by limiting the yearly Groningen production to what is needed to safeguard security of supply.
  - Draft decision to limit the allowed production for gas year 2018/19 to 19.4 bcm in an average year (based on a utilization rate of the existing nitrogen facilities of 92.5%). Consultation closed 4 October.



## Projected development of amount of Groningen gas needed in a cold year





## Towards a Climate Agreement

- > Headlines of Climate Agreement developed under the guidance of the Climate Council by five so-called 'Sector Tables':
  - Electricity
  - Mobility
  - Industry
  - Agriculture and Land Use
  - Built Environment
- > More than 200 organisations participated in the process; either directly (at the 'table') or indirectly through discussion sessions and hearings.
- > Headlines presented 10 July 2018 and subsequently analyzed by the Dutch Environmental Assessment Agency:
  - The announced measures will make it *technically* possible to reach the -49% reduction.
  - However, the development of the headlines towards an effective agreement will require difficult choices since the costs of the transition will add up to € 3 - € 4 billion in 2030.
  - a balance needs to be found between pricing, setting norms and subsidizing. The government will have to make decisions with regard to policy instruments and the financial framework.
- > Initial reaction Dutch Cabinet (5 November 2018):
  - More attention for economics and cost efficiency.
  - Stronger focus on additional measures to reach the -49% target, including norm setting and pricing.
  - Better involvement of citizens and more room for local initiatives.





## (No) natural gas in the Climate Agreement

- > Electricity:
  - off-shore wind (49 TWh in 2030 and renewables on land (35 TWh in 2030)
  - renewable energy for power to heat;
  - power to renewable molecules.
- > Built environment:
  - Transition towards sustainable heat;
  - no natural gas in new buildings.
- > Industry:
  - short term: CCS;
  - process efficiency, heat use and electrification;
  - hydrogen as feed stock.
- > Agriculture and Land Use:
  - reduction of methane emissions;
  - geothermal heat in the horticulture sector.
- > Mobility:
  - electrification, bio-fuels and green hydrogen;
  - logistic optimization and efficiency improvement.



## Next steps

- > New decision on allowed Groningen production before 15 November 2018.
- > Ongoing discussions with industry about phasing out of L-gas and transition to other sources of energy.
- > € 120 million subsidy given to 32 districts in 27 municipalities to phase out gas (11 districts in Groningen).
- > (Political) decisions on measures to reach the Climate Agreement ambitions. Climate Council and Sector Tables asked to come forward with concrete proposals for a draft agreement by 1 December 2018.
- > Investigate the potential of hydrogen and bio mass as a horizontal theme in the Climate Agreement.
- > Discussions with Parliament:
  - Law to limit the Groningen production to what is needed to safeguard security of supply.
  - New Climate Act to make the reduction of CO2 emissions legally binding (-49% in 2030 and -95% in 2050); 100% CO2 neutral electricity production in 2050).



## Further information

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