

The shaping of new German and Norwegian governments and possible outcomes in the climate- and energy politics/policies

8th German-Norwegian Energy Conference

» Power to Change – governments, climate & mobility «

Dr Felix Chr Matthes

Oslo | 26th April 2018

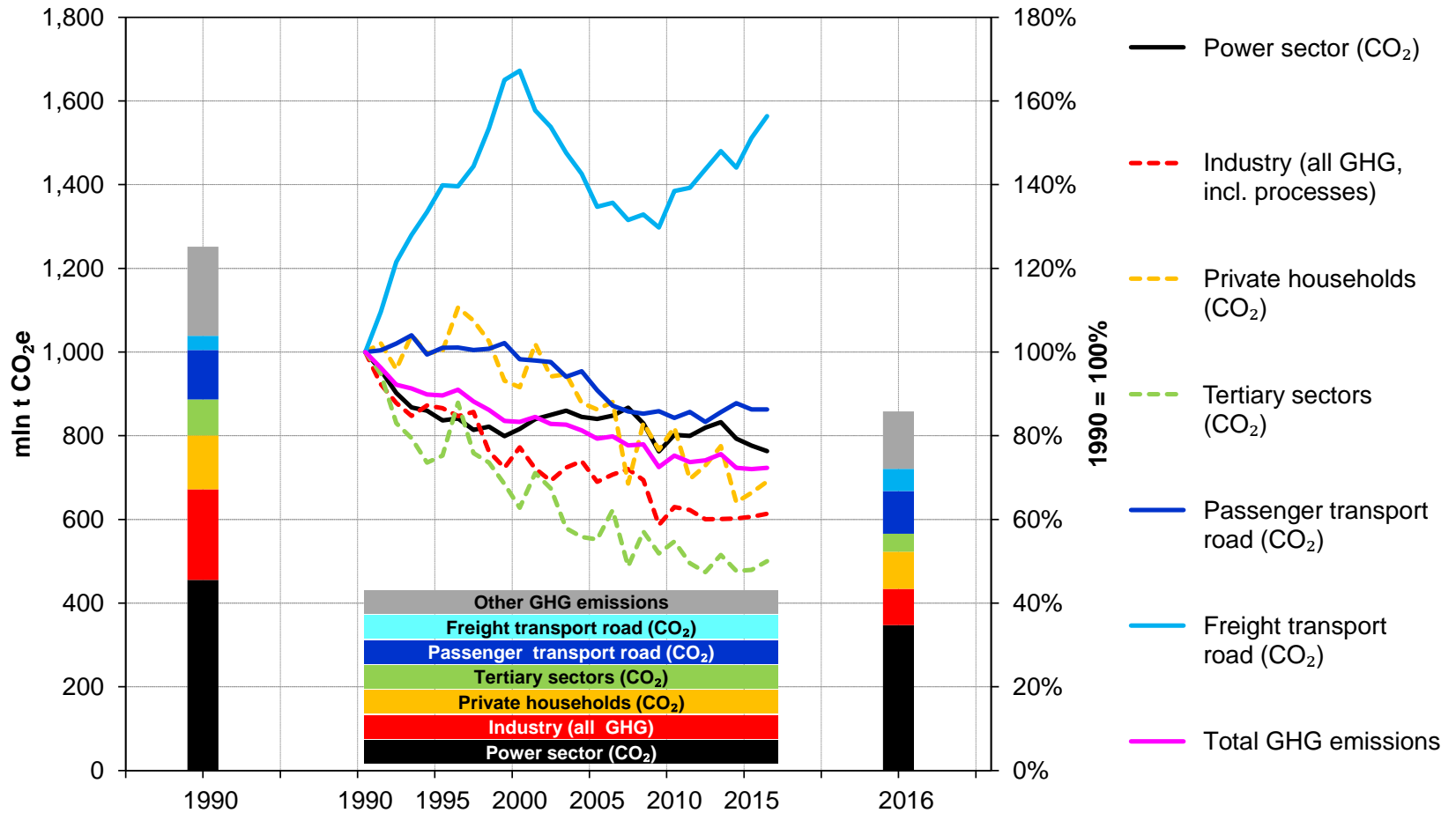
Energy Transformation in Germany

A target-driven approach (with strategy deficits)

	Targets as of ...												
	2018	2016	2016	2016	2016	2016	2010	2018	2010	2010	2010	2010	2011
	Greenhouse gas emissions						Renewable energies		Energy efficiency				Nuclear energy
Total	Energy sector	Buildings	Transport	Industry	Agri-culture	Gross final energy	Power generation	Primary energy	Space heating	Final energy transport	electricity consumption		
2011													-41%
2015													-47%
2017													-54%
2019													-60%
2020	-40%						18%	35%	-20%	-20%	-10%	-10%	
2021													-80%
2022													-100%
2025													
2030	-55%	-61 to -62%	-66 to -67%	-40 to -42%	-49 to -51%	-31 to -34%	30%	65%					
2035													
2040	-70%						45%	65%					
2050	-80 to -95%						60%	80%	-50%	-80%	-40%	-25%	
Base year	1990	1990	1990	1990	1990	1990	-	-	2008	2008	2005	2008	(2010)

Energy Transformation in Germany

Mixed results on meeting GHG reduction targets



- **Paving the way – for energy efficiency, clean generation & flexibility options (renewables & complementary flexibility)**
 - innovation, level playing field & roll-out for renewables (😊) , energy efficiency (😊), clean heating (😊) and zero-emission transport (😞)
 - sustainable economic basis (enabling coordination & investments) (😊)
- **Designing the exit-game – for the non-sustainable capital stocks**
 - phase-out for nuclear power (😊) and coal (😞) in the electricity sector
 - phase-out of outdated heating systems (😊), changing modal split in transportation (😊) and phase-out high-emitting vehicles (😞)
 - consistent carbon pricing (😞)
- **Triggering the necessary infrastructure adjustments with sufficient lead-times for electricity (😞), heat (😊) and gas (😊)**
- **Making the necessary innovation work in time**
 - an extremely broad range of innovation in the pipeline (😊)
 - attribution of innovation to the different phases of the energy transformation and dealing with the wildcards (😊)

- **Coalition treaty is not very promising (if one observed its genesis), no energy policy player is really enthusiastic on the new government**
- **The approaches of the new government are, however, not yet visible**
 - Option 1: Lengthy debates in different commissions, no/poor strategy formulation and shifting action to the next legislative term
 - Option 2: Addressing actively the necessary structural change (it is no longer about technologies or (system) costs), crucial test cases are:
 - approach to coal phase-out: important for many policy fields
 - approach to carbon pricing: ETS floor price for electricity sector, broader reform of recent bizarre system for non-ETS
 - approach to accelerated infrastructure adjustments/modernization: strong ties with 65% RES target for power generation
 - approach to create momentum for renovation of buildings and modernization of heating systems
 - approach to accelerate electric mobility
 - approach to EU 2030 targets

- **Matthes, Felix Chr. (2015): The energy transition in Germany**
 - http://www.cerre.eu/sites/cerre/files/151006_CERREStudy_EnergyTransition_Final.pdf
- **Matthes, Felix Chr. (2017): Energy transition in Germany: a case study on a policy-driven structural change of the energy system**
 - <https://link.springer.com/article/10.1007/s40844-016-0066-x>
- **Matthes, Felix Chr. (2017): Decarbonizing Germany's Power Sector. Ending Coal with A Carbon Floor Price?**
 - https://www.ifri.org/sites/default/files/atoms/files/matthes_decarbonizing_germany_power_sector_2017.pdf
- **Matthes, Felix Chr. et al (2017): Renewables versus fossil fuels – comparing the costs of electricity systems**
 - https://www.agora-energiewende.de/fileadmin/Projekte/2016/Stromwelten_2050/Agora_Gesamtkosten-Stromwelten-EN_WEB.pdf
- **Matthes, Felix Chr. (2017): The current electricity costs of energy-intensive industries in Germany**
 - <http://reinhardbuetikofer.eu/wp-content/uploads/2017/09/Matthes-2017-Memo-Electricity-costs-of-energy-intensive-industries-in-Germany-1.pdf>
- **Matthes, Felix Chr. (2018): Energy transformation in Germany. Progress, shortfalls and prospects**
 - http://www.enecho.meti.go.jp/committee/studygroup/ene_situation/006/pdf/006_005_02.pdf

**Thank you
very much**

**Dr. Felix Chr. Matthes
Energy & Climate Division
Berlin Office
Schicklerstraße 5-7
D-10179 Berlin
f.matthes@oeko.de
www.oeko.de
twitter.com/FelixMatthes**

