



Federal Ministry  
for Economic Affairs  
and Energy

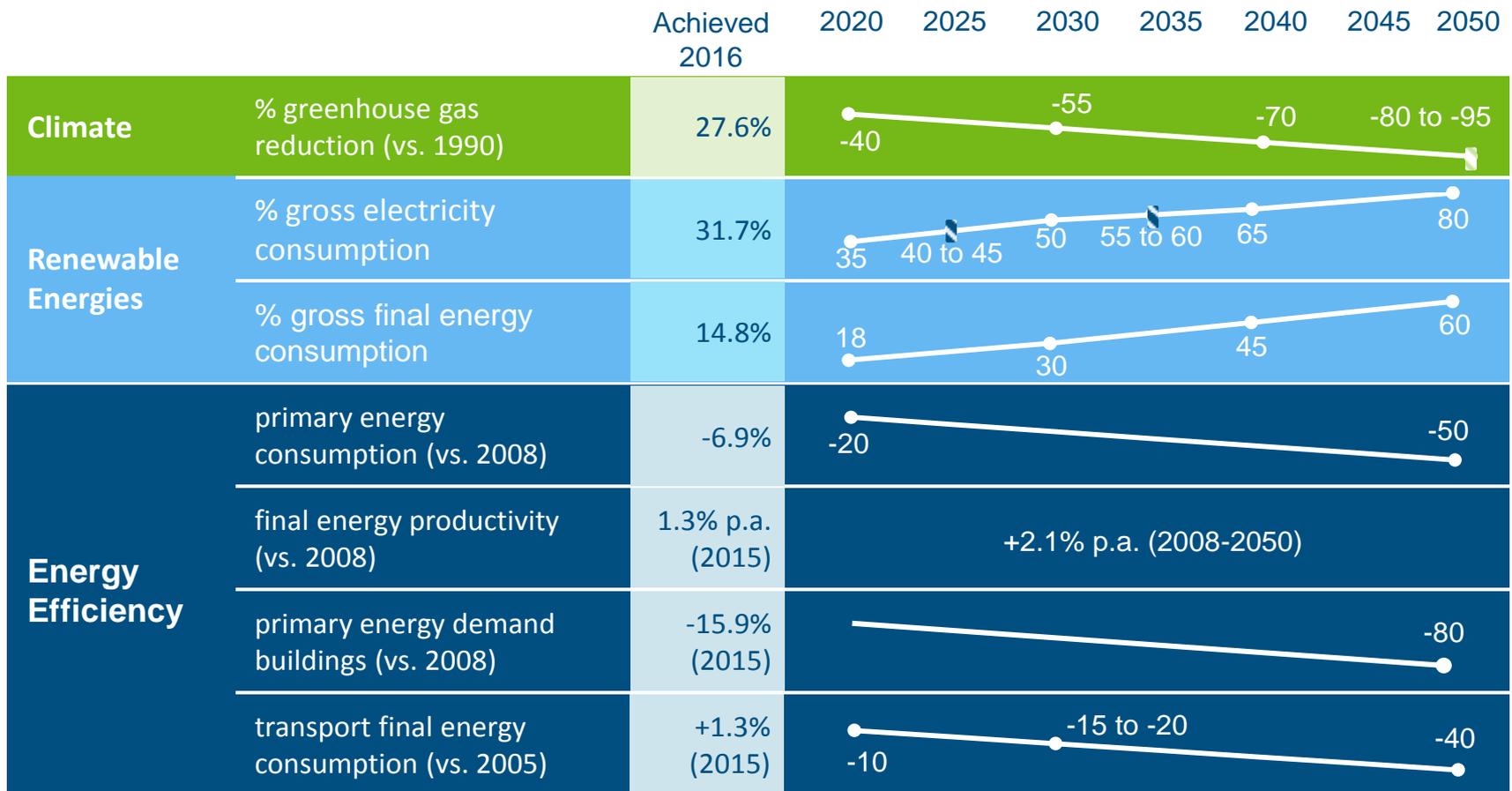


# The framework for energy efficiency in Germany

*Stefan Besser, Head of Division IIB1*

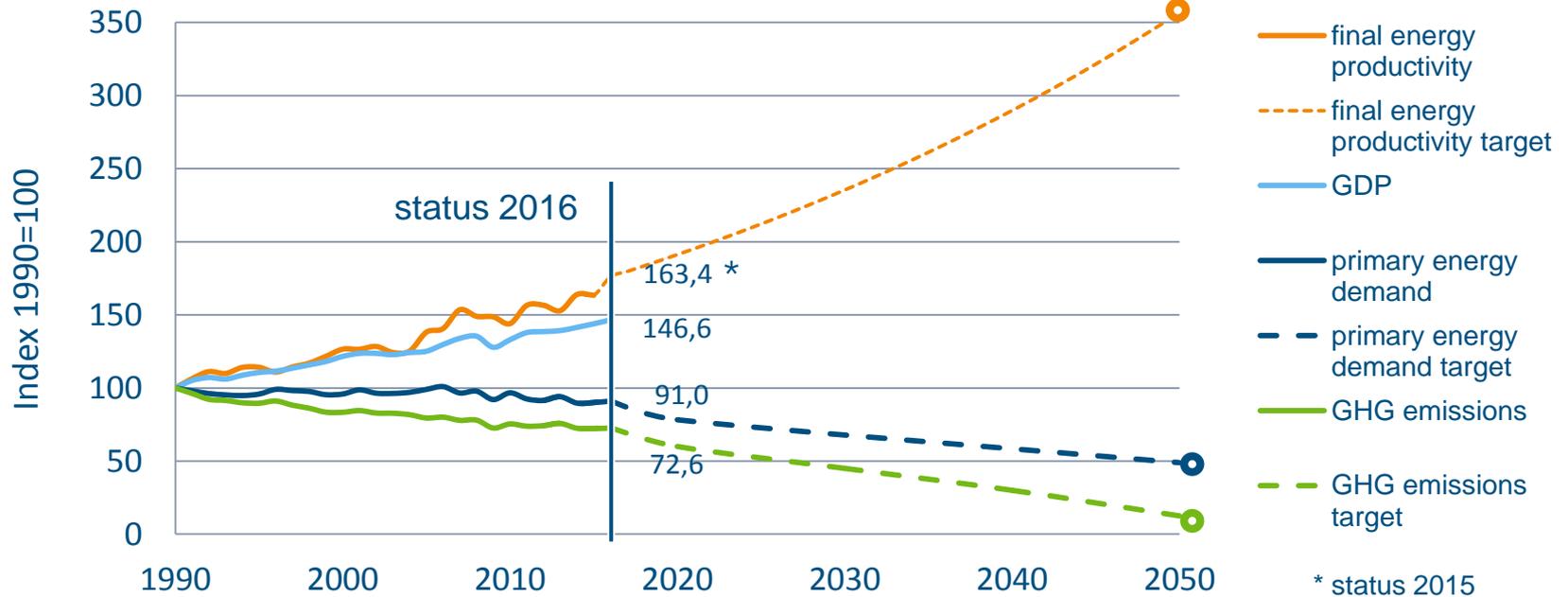
Berlin, 6. March 2018

# Efficiency and renewables are the “twin pillars” of the *Energiewende*



Source: BMWi 2016, UBA 2017

# Economic growth and energy consumption has been decoupled but acceleration of improvements needed



National targets:

● +2.1% final energy productivity p.a.

● 2020/2050: 20/50% reduction vs. 2008

● 2050: 80-95% reduction vs. 1990

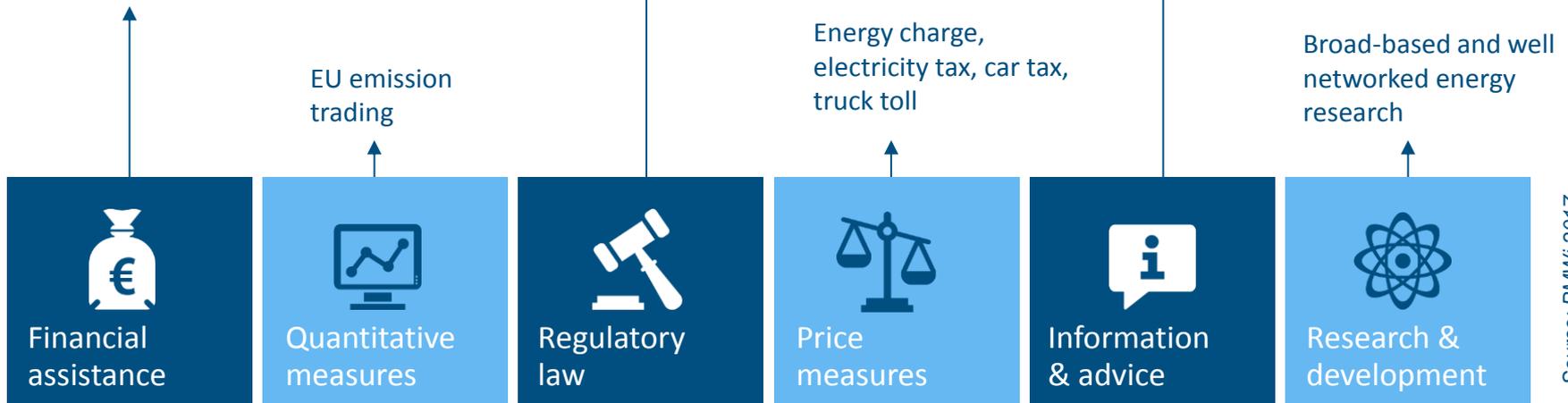
Source: Ecofys 2017 based on UBA 2017, World Bank 2017, AG Energiebilanzen 2017

# A sound mix of energy efficiency instruments is key to achieve Germany's emissions reduction targets

KfW CO<sub>2</sub> building renovation programme  
 Market incentive programme  
 Technology grants  
 Highly efficient "cross-sectional technologies"  
 Competitive invitations to tender for power efficiency (STEP up!)

Statutory requirements placed on buildings quality and energy consumption for new buildings and renovations (EnEV)  
 EDL Act  
 Energy consumption labelling (EU)

Provision of information by the public sector  
 Offers of advice  
 Comprehensive communication measures



Source: BMWi 2017

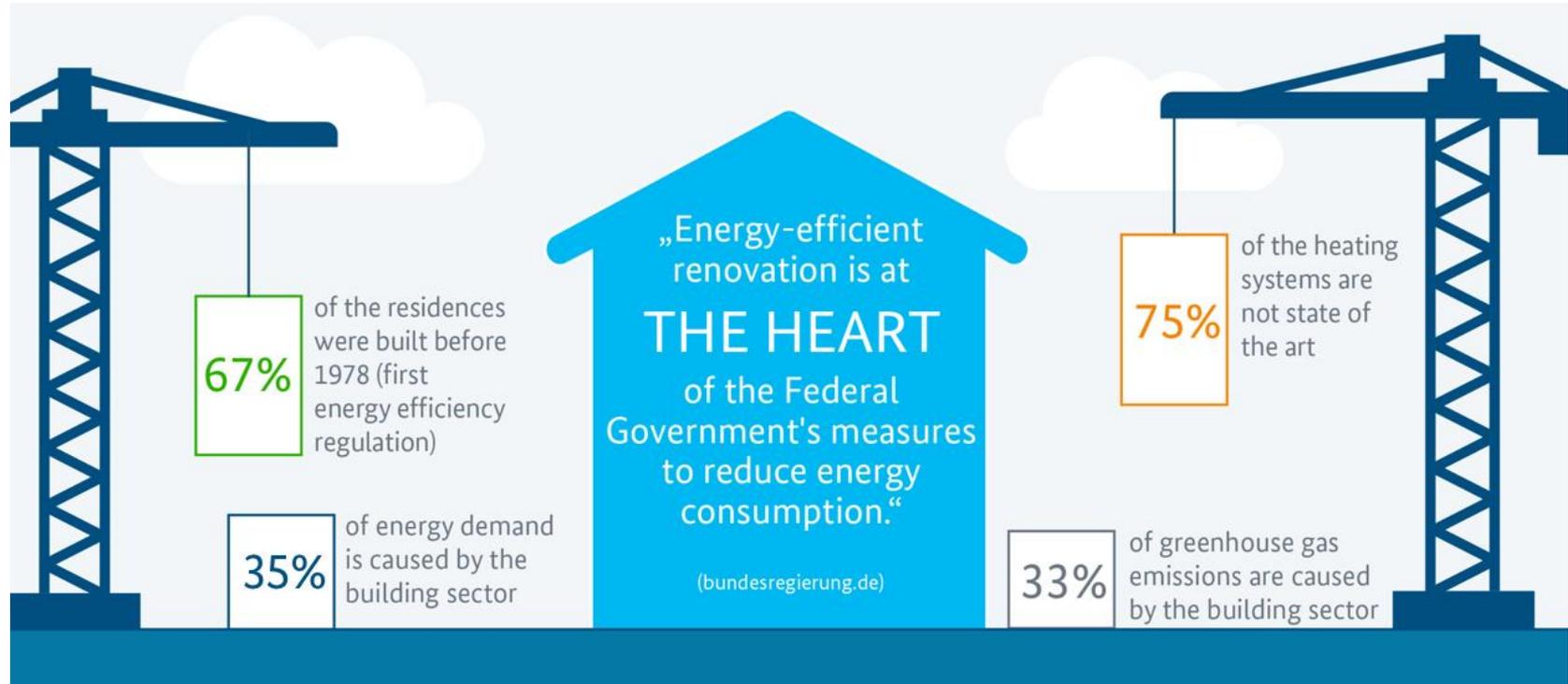
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# National Action Plan on Energy Efficiency 2014 strengthened public support

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- Significant public support for energy efficiency (€ 17 billion between 2016 – 2020).
- New promotional schemes in heating sector (e.g. efficient heating systems) and industry (e.g. waste heat utilization)
- Introduction of innovative programs (e.g. tendering scheme, application of saving meters)
- Growing market for energy efficiency services (energy consulting, energy-audits, energy management systems, energy performance contracting) with € 9 billion volume

# Low-energy refurbishment of existing building stock is crucial for the success of the energy transition



Source: Edelman.ergo, Ecofys 2016

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# Information services as the backbone for efficiency improvements

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- Energy consulting for a variety of target audiences
  - Citizens (via consumer protection agency)
  - SMEs
  - Buildings (residential as well as municipalities and NGOs)
- Energy-audits for larger companies (Art. 8 EED)
- Strong incentives for ISO 50.001 EMS in place
- Business-to-business networks
- Promotional scheme on „energy-saving-meters“

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# Incentives for application of ISO 50.001 Energy Management Systems

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- Approx. 50% of certified ISO 50.001 systems globally in Germany
- Exemptions from EEG levy and eco tax when implementation of energy management system
- Promotional scheme for application of ISO 50.001 in SMEs

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# Energy efficiency networks allow for a goal-oriented, non-bureaucratic exchange between companies

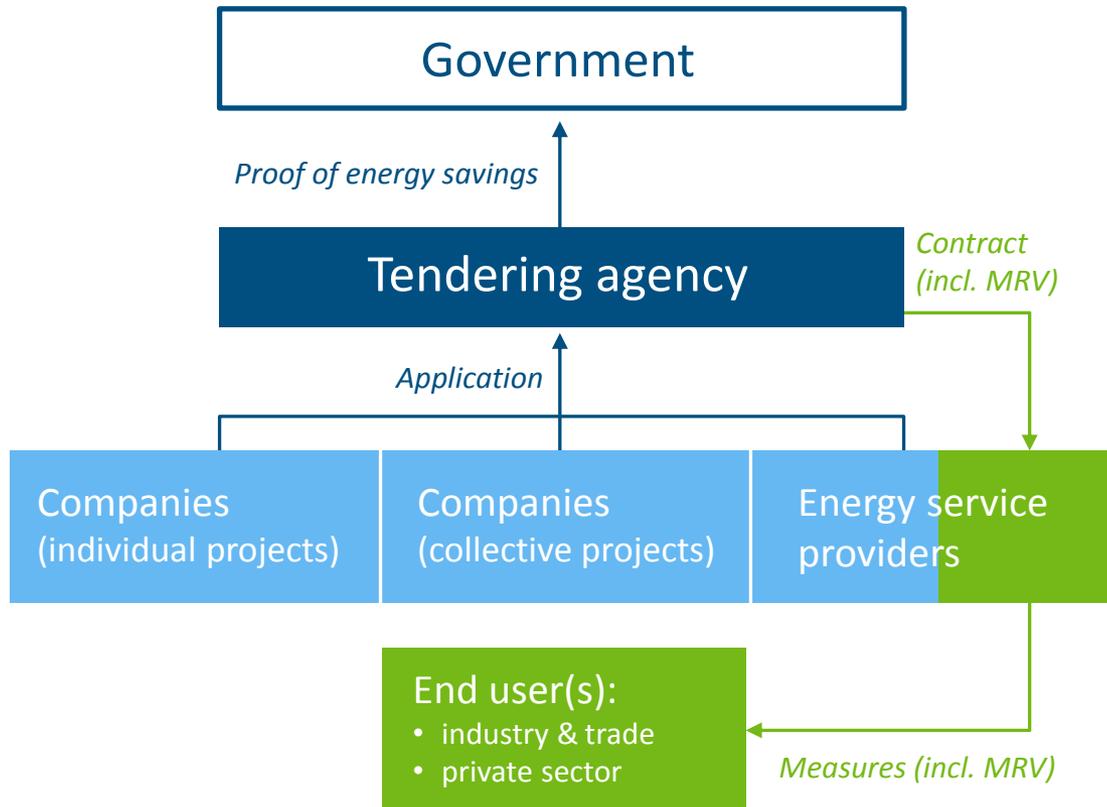
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- 8 to 15 companies commit to working together to increase their energy efficiency over two to three years
- An energy consultant (internal or external) estimates the energy saving potential
- Companies set energy saving targets individually
- Regular exchange to discuss best practices and key issues
- **Goal is to establish 500 energy efficiency networks until 2020. So far 150 networks have been formed.**

Source: Fotoalia, Energie und Technik 2015

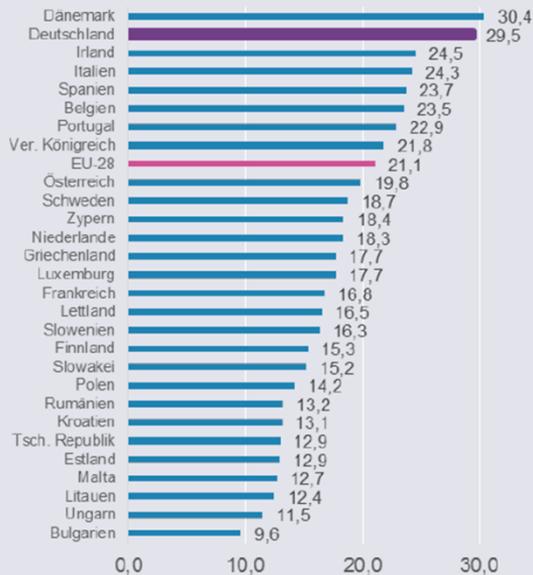
# Energy efficiency tender system: funding for the highest savings



- Funding quota max. 30% of investment costs and 0.10 €/kWh saved
- Min. amortization rate of three years
- Open for individual and collective projects
- Energy service providers can bid bundled projects

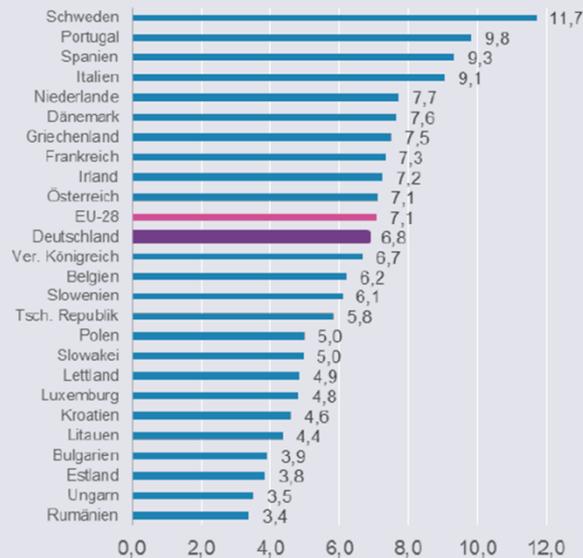
# Electricity vs. heat prices

Haushaltsstrompreis in ct/kWh



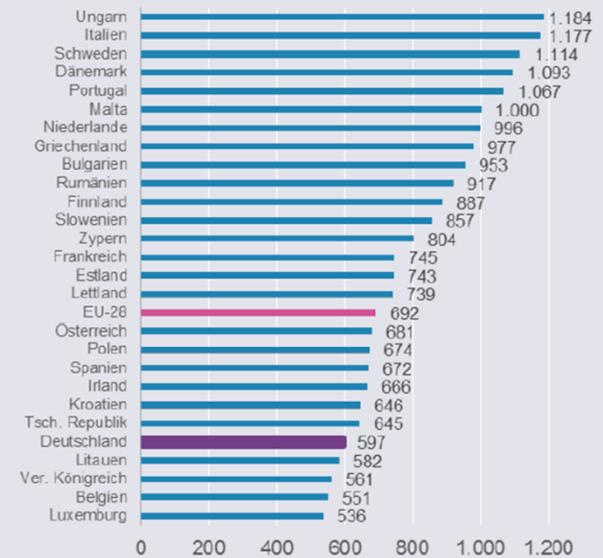
Eurostat, 2. Halbjahr 2015

Gaspreis in ct/kWh



Eurostat, 2. Halbjahr 2015

Heizölpreis in €/1.000 l

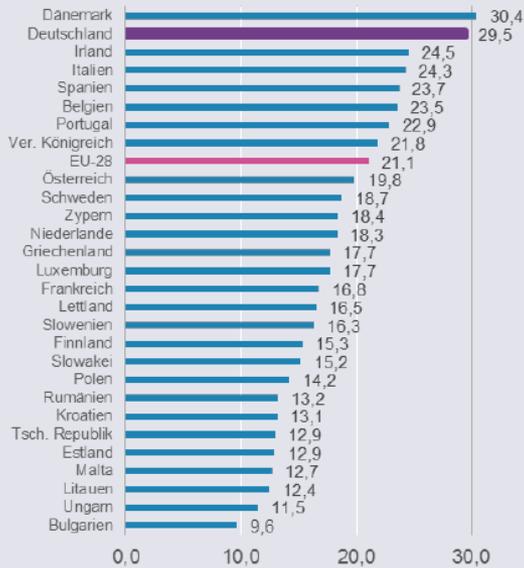


EU-Öl-Bulletin, Stichtag 20.03.2017

Source: Agora Energiewende, Energiepreise und Energiewende, 2017

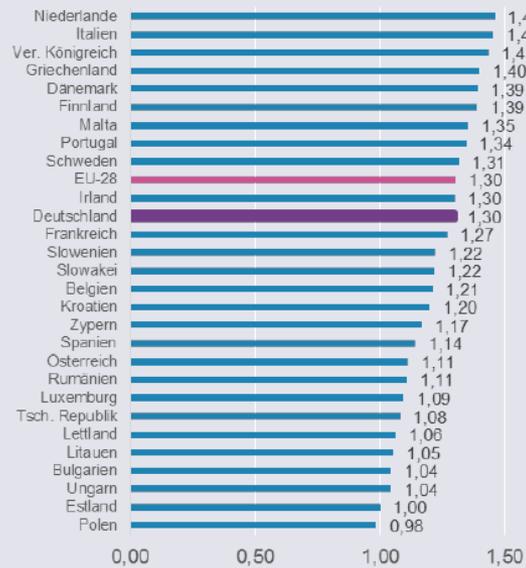
# Electricity vs. prices for gas & diesel

Haushaltsstrompreis in ct/kWh



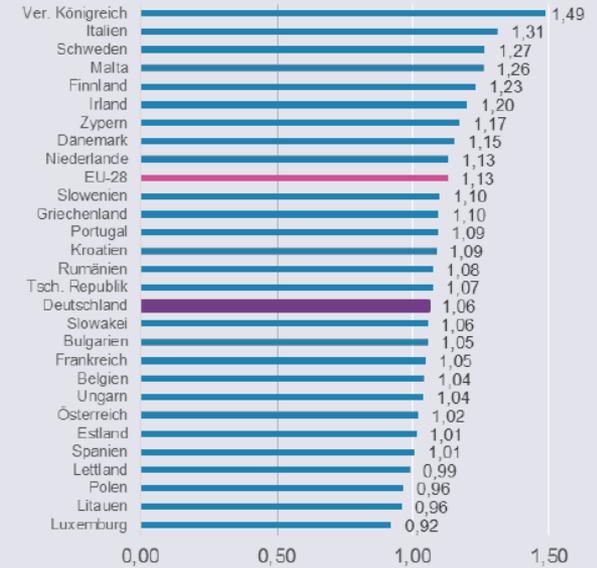
Eurostat, 2. Halbjahr 2015

Benzinpreis in €/l



EU-Öl-Bulletin Ende 2015

Dieselpreis in €/l



EU-Öl-Bulletin Ende 2015

Source: Agora Energiewende, Energiepreise und Energiewende, 2017

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# Outlook: further development of efficiency policies needed to achieve targets

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- National sectoral climate targets & EU-targets for 2030 demand step-change in energy efficiency progress
- Additional instruments needed to fully utilize the benefits of energy efficiency
- Integrated approach required due to sector coupling
- Digitization represents an opportunity for the energy service market but might add new electricity consumption