

# Energy transition with the initiative of business for 100 years

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BBH is known as “the” law firm of public utilities. But we are far more than that – in Germany and also in Europe. The decentralised utilities, the industry, transport companies, investors as well as political bodies, like the European Commission, the Federal Government, the Federal States and public corporations appreciate BBH’s work.

- ▶ Accredited professionals: ca. 250; total staff: ca. 550
- ▶ Offices in Berlin, Munich, Cologne, Hamburg, Stuttgart and Brussels

# Dr. Dörte Fouquet



Dr. Dörte Fouquet is specialized in EU law and international legal relations, with focus on competition, infrastructure, energy and environment. She is legal advisor to companies, finance institutions, associations, governmental agencies in Germany and other EU Member States, EU institutions and on international level.

- ▶ Studies of Law at the Universities of Marburg and Hamburg
- ▶ 1982 Research assistant, University of Hamburg
- ▶ 1988 Ministry for the Environment and Energy, Hamburg
- ▶ 1991 Liaison office of Hamburg and Schleswig-Holstein to the European Commission in Brussels
- ▶ 1993 Partner at law firm Kuhbier, Brussels
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# Agenda

1. Energy transition – the concept
2. Energy transition in Germany
  1. History of the German energy system
  2. First steps towards renewables
  3. Strong political support
  4. Success stories
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# Energy transition – the concept

Energy transition – as e.g. understood in Germany - means

- ▶ Reduction of CO<sub>2</sub> emissions
  - E.g. by reducing combustion
- ▶ Saving energy
  - E.g. by becoming more energy efficient
- ▶ Transition to renewable energy
  - E.g. by replacing conventional power plants by renewable energy installations
- ▶ Phasing out nuclear energy

# Energy transition in Germany

## History of the German energy system

- ▶ Germany was a country with many municipal energy suppliers
  - In the 1930s more than 16.000 municipalities having their own energy supply structures
- ▶ Through changes in political and legal landscape, concentration of energy supply by 1936
  - Energy supply activities became subject to approval
    - Insecurity among the municipalities led them to selling their energy supply activities
    - Large energy utilities took over municipal supply through concessions
    - Municipal supply structures diminished and utilities strengthened

# Energy transition in Germany

## History of the German energy system

- ▶ Utilities - such as E.ON and RWE – long time dominated the German energy market
  - Built and operated e.g. large nuclear power plants and were able to sell electricity for low prices
  - Many customers bound by long-term contracts
  - Grids were also in the hands of utilities
  - Markets divided between utilities which operated the regional grid
    - Low chances for market access and low competition
- ▶ Liberalization efforts starting in the 1990s
  - Both in Germany and on EU-level, calls to end the dominance of utilities in the energy markets

# Energy transition in Germany

## History of the German energy system

- ▶ Liberalization brought possibilities
  - To get access to the grid
  - To sell electricity to consumers through the grid
  - To terminate long-term contracts
  - To re-build municipal energy supply structures
    - Market access brought competition and chances for innovation
- ▶ Today, more than 900 municipal companies, with more than half of them engaging in electricity supply
  - And they were the „drivers“ of the German energy transition!



# Energy transition in Germany

## First steps towards renewables

- ▶ Some remaining municipal energy suppliers and medium-sized companies already had certain renewable energy projects
  - E.g. small hydro projects in Bavaria
- ▶ In the 1990s, Bavaria introduced feed-in tariff for small hydro power
  - Rationale: lobby from medium-sized energy companies
- ▶ In 1990, Bavarian regulation became role-model for first „Stromeinspeisungsgesetz“
  - Despite lobby of the big utilities!

# Energy transition in Germany

## Strong political support

- ▶ Stromeinspeisungsgesetz adopted by majorities in all political parties
  - Initiative from CDU/CSU and FDP, strong support from SPD and Grünen
    - Despite lobby of the big utilities!
- ▶ And German government continued to improve the legal framework for renewable energy
  - When some areas reached 5% renewables, revision of the Stromeinspeisungsgesetz and introduction of the Erneuerbare-Energiengesetz (EEG) in 2000
    - Again all political parties convinced of the benefits of renewables
      - E.g. on employment and economy

# Energy transition in Germany

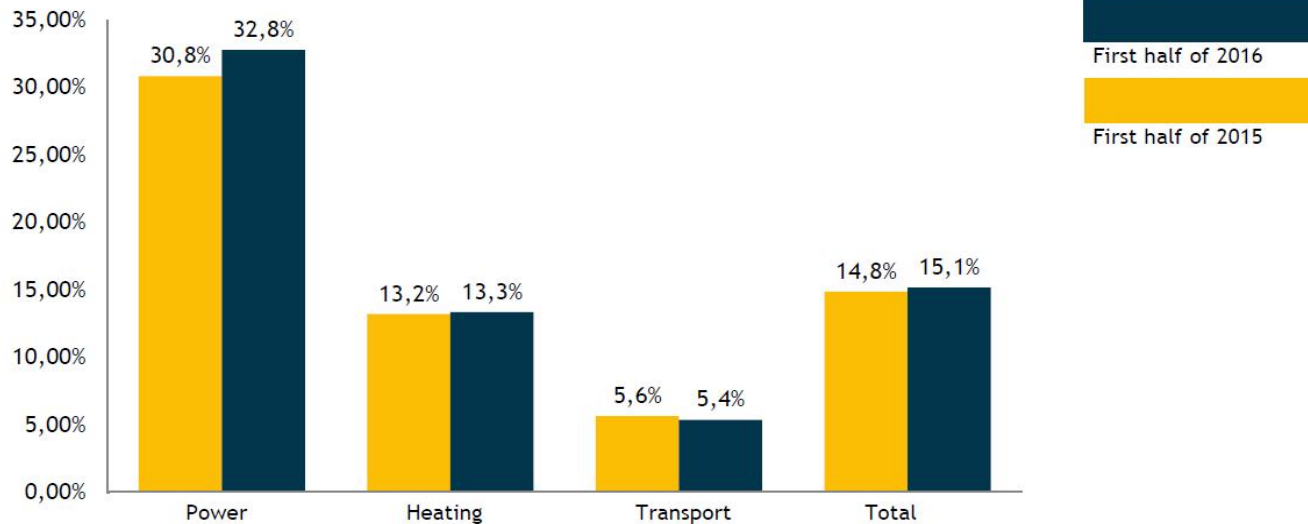
## Success stories

- ▶ The EEG2000 and the feed-in tariff for all renewables was a success
  - Between 1998 and 2009, share of renewable electricity increased from 4,6% to 16%
    - Wind power overtook hydro power in renewable electricity generation
- ▶ Employment and economy flourished
  - Convinced politicians and contributed to even stronger support for renewables and energy transition
    - Germany one of the biggest promoters of renewables in the EU
      - » Contributions also to improvement of EU legal framework for renewables
    - Efforts e.g. in energy efficiency followed, also driven by EU-level

# Energy transition in Germany

## Success stories

Renewable energy development during the first half of 2016:  
Summary of the power, heating and transport sectors, and total in per cent



Own calculation based on figures from member associations, TSOs, BDEW, AG-Energiebilanzen, BAFA, The Federal Network Agency, BMWI  
Last updated: 7/2016

# Energy transition in Germany

## Utilities miss out

Renewable energy development largely driven by small and medium-sized (municipal) companies

- ▶ Utilities as E.ON and RWE only took up the trend late
  - And still mainly focus on large projects such as offshore wind parks
- ▶ Classically, utilities held 80% of the German electricity supply
  - But with more than 30% renewable electricity, mainly from small and medium-sized (municipal) companies, games are changing
  - Some municipalities have their own energy transition ambitions
    - E.g. Munich wants to supply all electricity customers with renewable electricity by 2025
  - And they continue to „drive“ the German energy transition

# Energy transition in Germany

## The nuclear debate

- ▶ Starting 2000, German legislation provided for nuclear phase out
  - In 2010, prolongation for some nuclear power plants was announced
  - After Fukushima, nuclear phase out took up speed again
    - By 2022, Germany will no longer produce nuclear energy
- ▶ New legislation tries to guarantee that utilities bear decommissioning costs
  - Utilities might otherwise try to avoid those costs
- ▶ Together with transition to renewable energy, nuclear phase out has caused utilities to seriously consider their business models

## Take-away points

- ▶ Energy transition can start small
  - Liberalized markets with easy access for new market participants foster competition and innovation
- ▶ Strong political support fosters energy transition
  - In particular against strong utility lobby
- ▶ Renewables contribute to energy transition in many ways:
  - Replace conventional energy generation
  - Reduce CO<sub>2</sub> reductions
  - Increase efficiency
  - Break up (quasi) monopolist structures

Thank you very much  
for your attention.

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# Backup.