

High Integration of Renewable Energy to the Market and Policies – Experience from Europe

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About us



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- ▶ Offices in Berlin, Munich, Cologne, Hamburg, Stuttgart and Brussels

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Dr. Dörte Fouquet's focus is energy and environmental law in the field of the European institutions. She works towards a sustainable and pluralistic energy and infrastructure industry to become enshrined in European law.

- ▶ Born in Recklinghausen in 1957
- ▶ 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. EU Policy for Energy Transition
2. Challenges in the Energy Transition
3. Potential Solutions
 1. EU Approach – Energy Union
 2. National Approach – Capacity Markets
 3. Decentralized Approaches
4. Examples of Member States' Energy Transitions
 1. Germany
 2. United Kingdom

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Implementation of the 2020 Package: Green House Gas Emissions



- ▶ **EU Overall target** – at least 20% reduction in greenhouse gas emissions
- ▶ **ETS “target”**
 - Cap for all countries and industries covered by the ETS of 21% less emissions compared to 2005
 - In ETS Phase 3 also nitrous oxide (N₂O) from the production of nitric and other acids and PFCs from the production of aluminium, in addition to CO₂
- ▶ **Non-ETS target:** industries cover 14% reductions
 - Industries not covered by the ETS governed by different legislative frameworks with specific obligations
 - Member States “share” in the efforts of reaching the EU Overall target under Effort Sharing Decision

Implementation of the 2020 Package: Renewable Energy Systems

- ▶ **Overall EU target** – at least 20% renewable energy
 - With a separate target for transport
- ▶ **Member States' targets**
 - Trajectory targets in the NREAP
 - Set by the Member States themselves
 - Split in electricity, heating and cooling and transport
 - Indicative target for 2011/2012
 - Set by the Directive 2009/28/EC
 - Split in electricity, heating and cooling and transport
 - Binding national target
 - Set by the Directive 2009/28/EC
 - With a separate target for transport

Implementation of the 2020 Package: Energy Efficiency

- ▶ **Overall EU target** – at least 20% = 2020 energy consumption of no more than 1 474 Mtoe primary energy or no more than 1 078 Mtoe of final energy
- ▶ **Member States' targets**
 - Trajectory target in the NEEAP
 - Set by the Member States
 - Divided in separate sectors/measures
 - Indicative national target
 - Set by the Member States
 - Translated into actual energy savings

Implementation of the 2020 Package: Greenhouse Gas Emission

▶ **EU Overall target**

- Likely to be met:
 - Compared to 2012, GHG emissions fell by 1.8% in 2013 = around 19% below 1990 levels
 - With that EU also likely to meet Second Kyoto target (20% compared to base year)
 - First Kyoto target was met already

▶ **ETS “target”**

- Likely to be met
 - Although “functional” problems, with too low prices and too many certificates

▶ **Non-ETS “target”**

- Not on track under Effort Sharing Decision, but increased efforts by Member States needed

The Renewable Energy Directive

Binding targets

Renewable Energy Directive sets binding national targets for each Member States to reach individually – those will add up to the overall EU target of at least 20% renewable energy by 2020

- ▶ Art. 3(1) RED: „a target of at least a 20 % share of energy from renewable sources in **the Community's gross final consumption** of energy in 2020“
- ▶ Art. 3(1) RED jo. Annex I RED: „**Each Member State** shall ensure that the share of energy from renewable sources, (...), in gross final consumption of energy in 2020 is at least its national overall target for the share of energy from renewable sources in that year“
 - Annex I: Targets calculated and negotiated for each Member State

The Renewable Energy Directive

Discretion to reach the targets

While the RED sets binding national targets, the Member States face discretion to reach them.

- ▶ Art. 3(2) RED: “Member States shall introduce measures **effectively** designed to ensure that the share of energy from renewable sources equals or exceeds that shown in the indicative trajectory set out in part B of Annex I.”
- ▶ Art. 3(2) RED: “**inter alia**, apply the following measures: (a) support schemes; (b) measures of cooperation...”
 - Confirmed by CJEU, e.g. Case C-573/12 Ålands: “EU law has not harmonized the national support schemes” (par. 94) and “Member States must be able to control the effect and costs of their national support schemes according to their different potential” (par. 99)

The Renewable Energy Directive

National Renewable Energy Action Plans

Member States had to adopt National Renewable Energy Action Plans (NREAP) and notify no later than 30 June 2010.

- ▶ Art. 4(1) RED: NREAP „shall set out Member States’ **national targets** for the share of energy from renewable sources consumed in transport, electricity and heating and cooling in 2020 (...), and **adequate measures to be taken to achieve those national overall targets**, including cooperation (...), national policies to develop existing biomass resources and mobilise new biomass resources for different uses, and the measures (...) to fulfil the requirements of Articles 13 to 19.”
 - Commission adopted template with minimum requirements (See Art. 4(1) RED)

RES Growth Rate Required to Reach Overall EU 2020 Target

RES GROWTH RATE 2010-2012 VERSUS AVERAGE ANNUAL GROWTH RATES REQUIRED

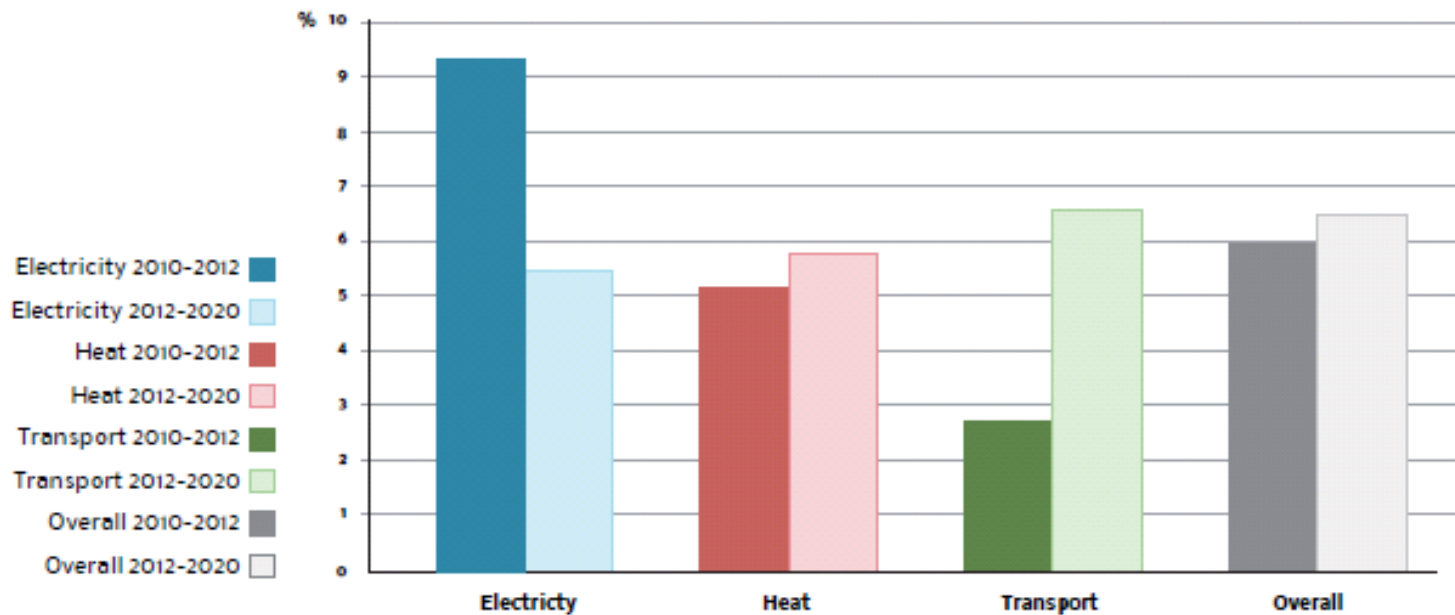


Figure 4: Growth rates of RES sector shares 2010-2012 [%/a] ⁴ and average annual growth rates [%/a] required from 2012 to 2020 to achieve the 2020 target. Source: Fraunhofer ISI based on Eurostat and other sources.

Implementation problems

NREAP not fully implemented?

Some Member States have described measures in their NREAP or their reporting which in practice may not be fully implemented, or implemented only late.

- ▶ E.g. renewable energy laws entered into force only with delay, administrative barriers were not (yet) addressed, support schemes were not fully effective (over- or undercompensation)...
- See e.g. Progress Reports by and for the European Commission
- See e.g. Results from the REPAP project or the Keep on Track! project
 - <http://www.repap2020.eu/>
 - <http://keepontrack.eu>

Implementation problems

NREAP follow own trajectory

Member States set themselves a “trajectory” in the NREAP – but maybe some “cheated” by making it rather steep (relatively larger growth than before) towards 2020

RES SHARE IN GROSS FINAL ENERGY CONSUMPTION

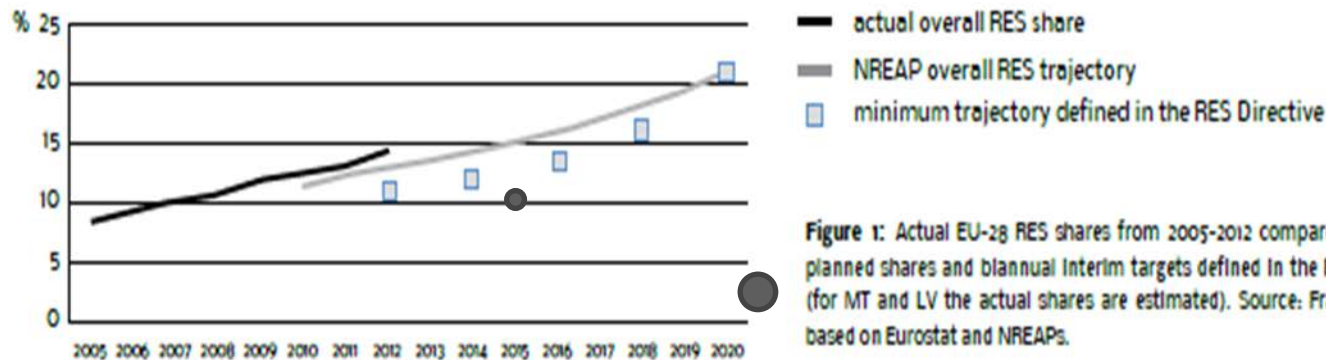


Figure 1: Actual EU-28 RES shares from 2005-2012 compared to NREAP planned shares and biannual interim targets defined in the RES Directive (for MT and LV the actual shares are estimated). Source: Fraunhofer ISI based on Eurostat and NREAPs.

The EU-28 are on track with an overall RES share of 14.07% in 2012, compared to a planned share of 12.87% according to the NREAPs.

Source: <http://keepontrack.eu>

Note that the minimum trajectory of the RED is however actually lower!

Implementation problems NREAP do not ensure target achievement

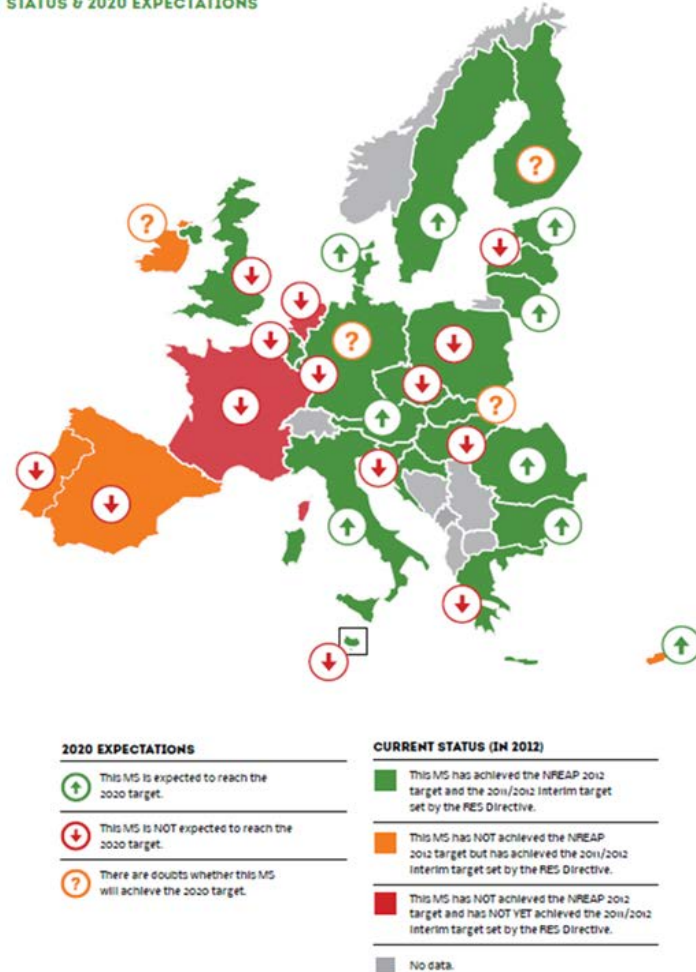
2020 situation

NREAP trajectory says target will be reached

- ▶ But measures taken in more than 14 Member States insufficient to reach the target!

Source: <http://keepontrack.eu>

ACHIEVEMENT OF RES TARGETS BY MEMBER STATES:
CURRENT STATUS & 2020 EXPECTATIONS



Climate and Energy Package 2030

- ▶ Greenhouse gas reduction target of at least 40% compared to 1990 (binding)
- ▶ RES account for 27% of the total energy production
- ▶ Increasing Energy Efficiency by 27%
- ▶ ETS Target:
 - Introduction of a market stability reserve from 2021 addressing the surplus of emission allowances

Energy Road Map 2050

- ▶ 80% Reduction of GHG Emissions compared to 1990
- ▶ Improving energy efficiency by 30% compared to 2005
- ▶ Creating a low-carbon society
- ▶ Energy production relying to almost 100% on RES

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Challenges in the Energy Transition

- ▶ Current power systems (coal or fossil fuels)
 - Large-scale generation often by former incumbent
 - Available on demand

- ▶ Intermittent Renewable systems
 - Fluctuation of the source (available “when it is available”)
 - Often decentralized generation by independent power producer

- Need for restructuring of the power system in order to include RES into it effectively – increasingly focused on **decentralized generation**

Main Issues of Loading of RES-E into the Grid

- ▶ Voltage stability
- ▶ Reactive power compensation
- ▶ Switching actions
- ▶ Synchronization
- ▶ Long transmission lines
- ▶ Low power factor
- ▶ Voltage fluctuations and line losses

Need for System Change: Infrastructure Transmission Grid (1)

- ▶ Large investment in transmission grids in order to integrate the large share of RES-E could be **minimized by applying technical solutions** (that would also have an effect in increasing the transfer capacity of the grid)
- ▶ Some of the solutions:
 - Undergrounding of overhead lines
 - High temperature conductors
 - Line monitoring

Need for System Change: Infrastructure Transmission Grid (2)

- ▶ Besides that, transmission becomes increasingly important as the major share of RES-E installations are located at quite a distance from demand centers → further building of new grids STILL necessary
 - Extension of the existing AC grid (more local character)
 - Building of number of “electricity highways” across Europe, with a mix of AC and DC (long-distance transport) lines
 - Creation of an integrated offshore grid

Need for System Change: Infrastructure Transmission Grid (3)

- ▶ RES-E higher capacities may cause problems if:
 - too much electricity is fed into the grid
 - Electricity cannot be sold to other systems

- Thus, increased interconnection capacity allows RES-E to flow more freely in the European market, making the power system more reliable

Need for System Change: Infrastructure Transmission Grid (4)

- ▶ 4 EU priority corridors for electricity:
 - An offshore grid in the Northern Seas and transmission lines to Northern and Central Europe to transport power produced by offshore wind to consumers and energy storage centers
 - Transmission lines in South Western Europe such as between Spain and France to transport power between EU countries
 - Transmission lines in Central Eastern and South Eastern Europe to strengthen the regional network
 - Integration of the Baltic electricity market – Lithuania, Latvia, and Estonia – with the rest of the EU

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The Energy Union

- ▶ Concept of the „European Energy Union“ proposed in 2010 by the Jacques Delors Institute
- ▶ Strong support by former Polish Prime Minister Donald Tusk, French President Francois Holland and former President of the European Council Herman Van Rompuy
- ▶ Long term strategy in addition to previous measures (Packages 2020 and 2030)
- ▶ One of the key priorities of the new EU Commission

“(...)The time has come for a new approach. (...) I therefore want to reform and reorganize Europe’s energy policy into a new European Energy Union. (...) We have to reorganize Europe’s energy policy into a new European Energy Union”.

Source: A New Start for Europe: My Agenda for Jobs, Growth, Fairness and Democratic Change. Political Guidelines for the next European Commission, by Jean-Claude Juncker, Strasbourg, 15 July 2014.

The 5 Pillars of the Energy Union

- ▶ Pillar I: Security of Supply
- ▶ Pillar II: Single Internal Energy Market
- ▶ Pillar III: Energy Efficiency
- ▶ Pillar IV: Decarbonisation and RES
- ▶ Pillar V: Innovation and Green Growth

The Energy Union: Pillar I

Security of Supply

- ▶ EU is the biggest energy importer in the World (1 billion € per day, 3.2% of its GDP)
- ▶ In the year 2013 more than half (53%) of the energy demand was covered by imports
- ▶ European security of gas supply regulation after the Gas Crisis of 2009
- ▶ Focus on creating the same mechanism for electricity on Regional, National and European Level
- ▶ Security of Supply is closely linked to the other Pillars

The Energy Union: Pillar II

Single Internal Energy Market

- ▶ Strengthening of European stakeholders (ACER, ENTSO...)
- ▶ Establishing a European regulatory framework
- ▶ Cooperation between Member States both on national and regional level
- ▶ Greater interconnectivity of the various energy and gas networks
- ▶ Creating solidarity between Member States for mutual assistance in case of disruption

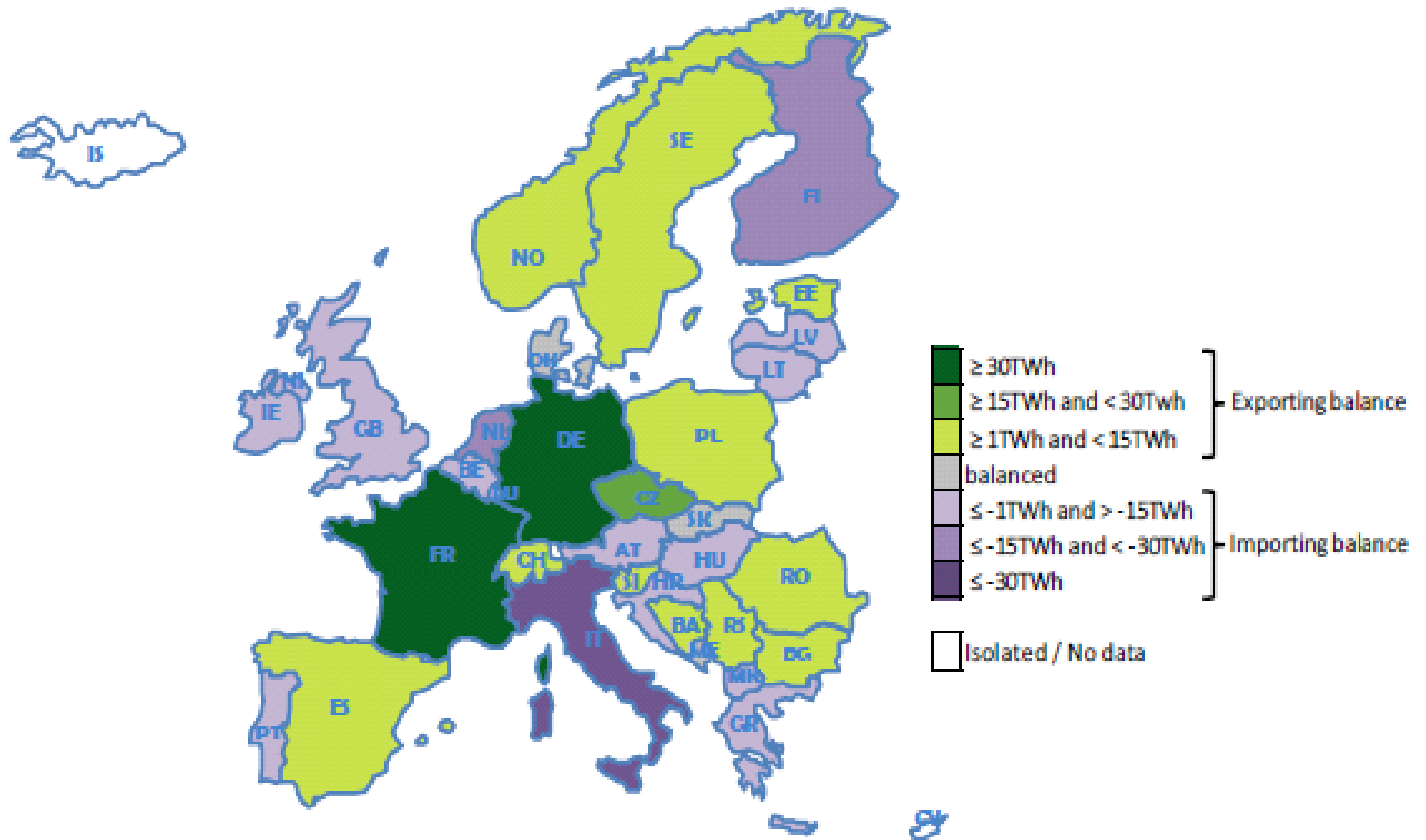
The Energy Union: Pillar II

Single Internal Energy Market

- ▶ **Third European Energy Package (2009):**
 - Effective ownership unbundling
 - Independent transmission system operator (TSO)
 - Energy regulatory authorities

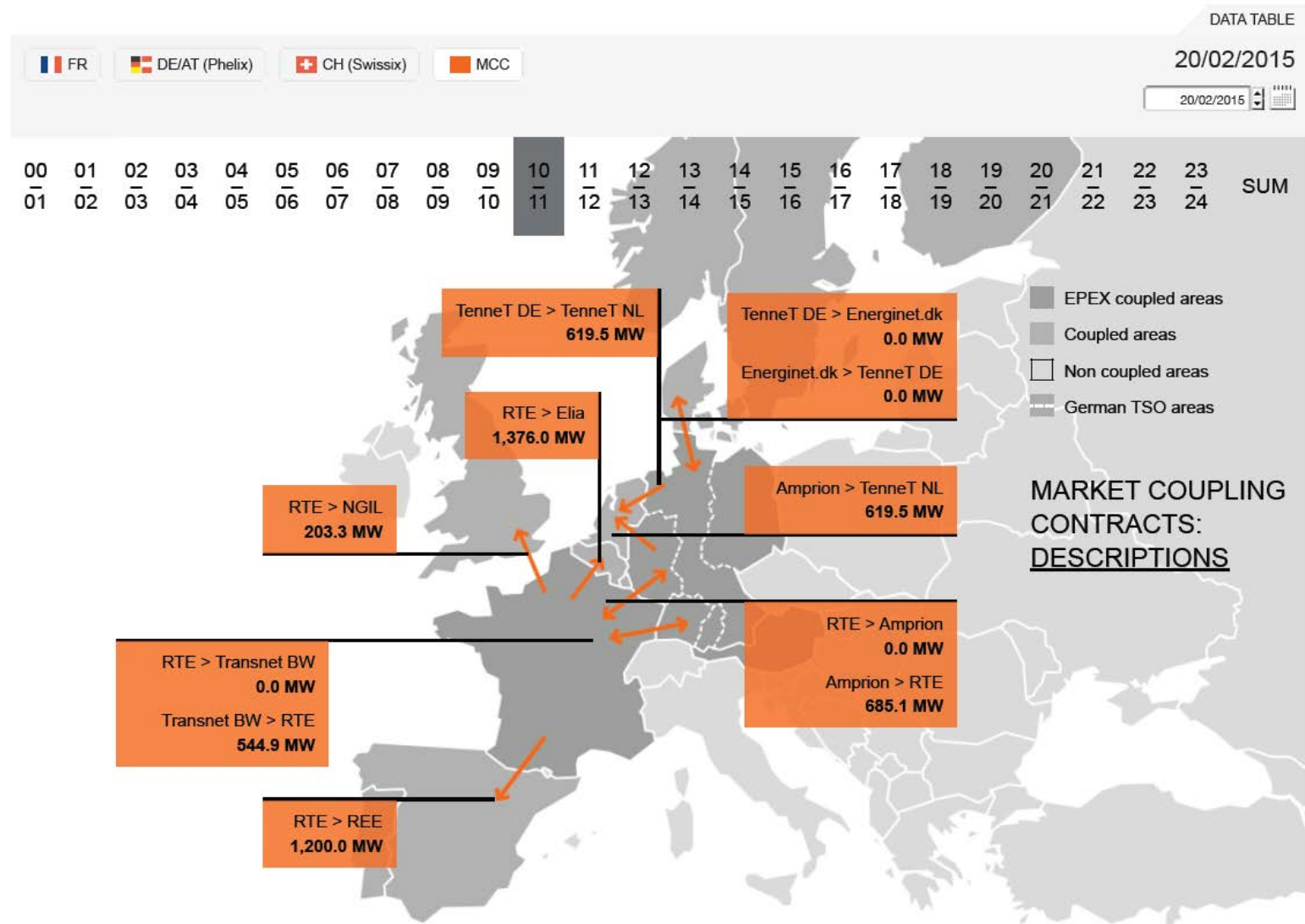
- ▶ **EU 2030 framework for climate and energy policies (2015):**
 - €5,85 billion budget for energy infrastructure
 - Electricity transmission lines qualify for PCIs (currently 248)
 - Smart grids

Exchange balances in 2013



Trade in Electricity

EPEXSPOTAUCTION



The Energy Union: Pillars III and IV

Decarbonisation and Energy Efficiency


- ▶ Energy Efficiency directive establishes a set of binding measures helping the EU reach energy efficiency increase target
- ▶ Enabling of National Action Plans for each Member State
- ▶ Allowing final consumers to improve their demand management through the use of smart meters
- ▶ Energy Union should become „*world number one for renewable energies*“ (Commission President Juncker)

Photovoltaic Fraunhofer Study on Potential of RES: Findings (1)

- ▶ (1) Most scenarios fundamentally underestimate the role of solar power in future energy systems
 - Based on outdated cost estimates
 - Fundamental review of cost-optimal power system calculation necessary

- ▶ (2) Solar photovoltaic is already today a low-cost renewable energy technology:
 - Considering large scale PV plants in Germany, the price fell from **40 €ct/kWh** in 2005 to **9 €ct/kWh** in 2014

Photovoltaic Fraunhofer Study on Potential of RES: Findings (2)

- ▶ (3) Solar power will soon be the cheapest form of electricity in many regions of the world
 - end to cost reduction is not in sight (conservative scenario):
 - 4-6 €ct/kWh by 2025
 -  2-4 €ct/kWh by 2050
- ▶ (4) Financial and regulatory environments will be key to reducing cost in the future:
 - Cost of hardware sourced from global markets will decrease irrespective of local conditions

The Energy Union Pillar V: Innovation and Green Growth (1)

- ▶ Additional 55 billion € in revenues can be generated by fostering energy efficiency in products
- ▶ Need for a new industrial energy plan focusing on innovation, e.g. CCS, digital energy (smart meters and grids)
- ▶ Modernization of the energy system (interaction and flexibility between production, transportation, distribution, and consumption sides)
- ▶ Introduction of new financial instruments to encourage private investment

The Energy Union: Pillar V

Innovation and Green Growth (2)

▶ **Private Finance for Energy Efficiency (PF₄EE)**

- Increasing private financing for energy efficiency projects designed to help Member States achieve the EU's agreed targets on energy efficiency. The Commission has committed €80 million for 2014-17, anticipating an 8-fold leverage effect.

▶ **Natural Capital Financing Facility (NCFF)**

- Providing loans and investments in funds to support projects that help preserve natural capital, including adaptation to climate change. A budget of €100-125 million is available for the period up to 2017.

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Capacity Markets - Overview

- ▶ Dispatchable electricity reserve (as emergency function)
- ▶ Increase of capacity level
- ▶ Ability to reduce price peaks on spot market
- ▶ State aid = Infringement of EU competition law?
 - Guidelines on State Aid for Environmental Protection and Energy (2014)
 - Art. 107 (3) TFEU: Overall interest of EU
 - Balance between effective state support AND assurance of competitive markets

Capacity Markets: Redundant or vital to the IEM?

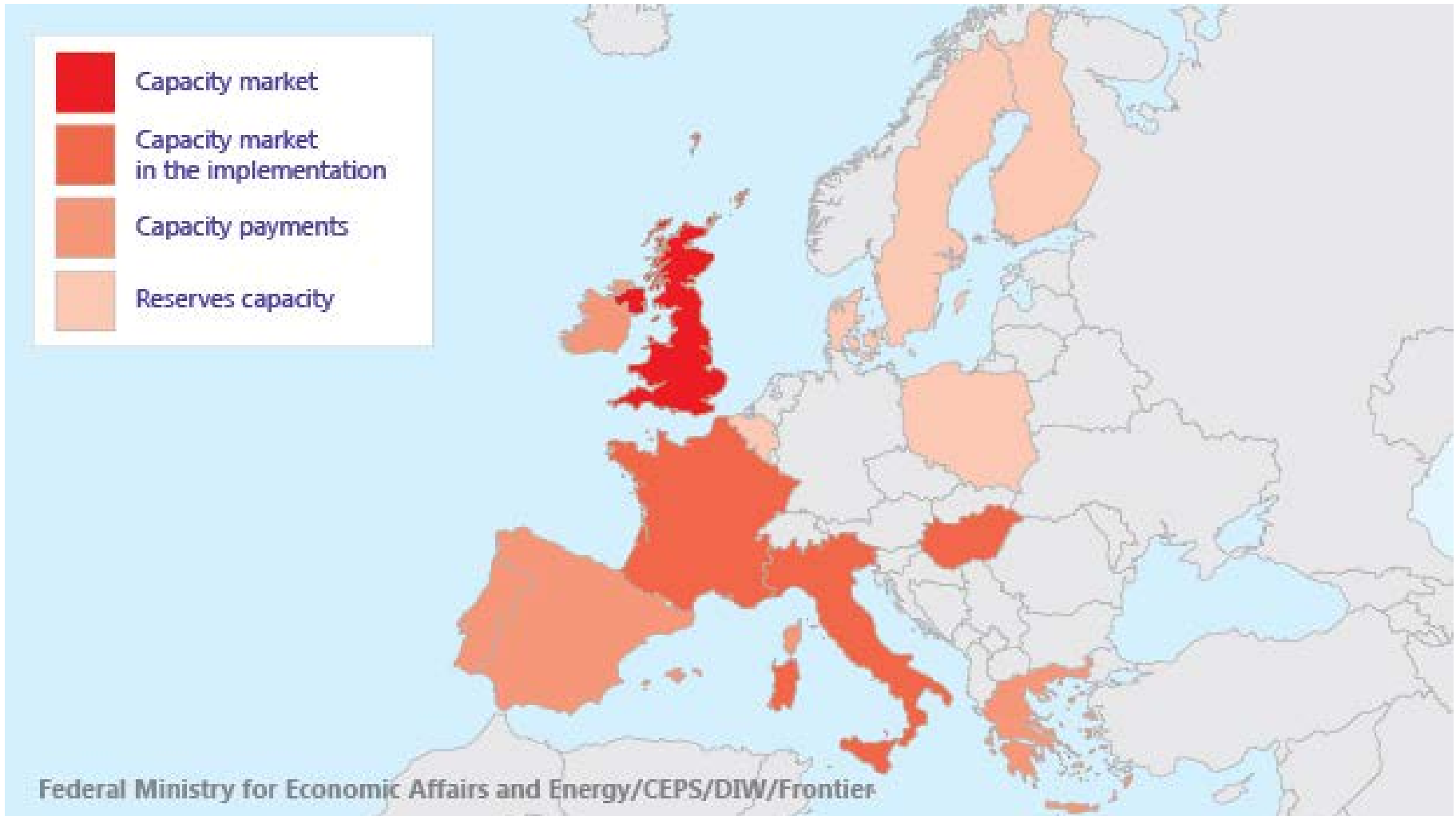
Energy-only market

- ▶ Undistorted price signals
(no price ceiling)
- ▶ Demand determines capacity
- ▶ Sufficient capacity; back-up power plants
- ▶ Safeguard supply via hedging and options
- ▶ Credible legal framework
- ▶ *BUT*: Introduction of capacity reserve (financed by elect. market)

Energy plus capacity market

- ▶ Insufficient electricity capacity
- ▶ Insufficient flexibility options and back-up power plants
- ▶ Unreliable price peaks
(no investment incentive)
- ▶ *BUT*: Procuring costs passed on consumer
- ▶ Central authority can promote flexible and low-emission capacities

Capacity Markets in Europe



Capacity Market in the United Kingdom

- ▶ Commission authorized UK Capacity Market scheme according to “Guidelines on State Aid for Environmental Protection and Energy”:
 - First auction held in 2018 / 2019: 49GW
- ▶ Criticism:
 - Over 50% of contracts are fossil power plants: lock in high-carbon sources of power
 - Only 5 % of auction revenues go into new investment (€400m. support to old coal plants)
 - More expensive than necessary (€5,4bn per year for demand-generators „to exist“)
 - Tempus Energy (UK-provider) files lawsuit at the ECJ: unlawful subsidy to fossil fuels demand-side generators

Germany's Stance on Capacity Markets

- Green Paper issued by Ministry for Economic Affairs and Energy (4 working groups, summer 2014)
 - Electricity surplus = sufficient capacity
 - High degree of supply security (power outage of only 15min per year)
 - Fossil-fuel burning power stations as back-up are contrary to German's Co2 emission targets
 - Increase of electricity prices to finance installment
 - **Preferred expansion: energy-only market, safeguarded by capacity reserve**
- White paper expected in May 2015, legislative process by 09.2015

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Smartening of the System (1)

- ▶ **Smart Technologies** = installation of active components for switching, measuring, monitoring and communication in distribution networks
- ▶ **Smart grids** = electricity networks that can efficiently integrate actions of all users connected to it – generators, consumers and prosumers – in order to ensure an economically efficient, sustainable power system with low losses, high quality, security of supply and safety.
 - Smart grids allow to automatically monitor energy flows and adjust to changes in energy supply and demand

Smartening of the System (2)

- ▶ **Smart meters:** an electronic device that records consumption of electricity per unit
 - Consumers can control their energy bills: Adaptation of time and volume according to different energy prices throughout the day
 - Better network planning and control for **DSO**
 - Combining information on energy demand +weather forecasts permits better integration of RE into the grid and balance their networks
- ▶ Furthermore, an increasing penetration of distributed generation requires an **extension of distribution networks**
 - Need for a balanced geographical distribution of RE production, considering resource availability and also proximity to load

Example (1): Power Bridge between Sweden and Germany

- ▶ A new interconnector links directly the huge storage potentials in Sweden to the wind electricity production centers in North-East Germany
- ▶ **More direction cables** ➡ thus creating value for both partners
- ▶ Aims to allow for increased electricity trade between the countries and contribute to the security of supply

Example (2): Phase Shifter Transformers Between Poland and Germany

- ▶ 50Hertz and PSE Operator agreement on construction of phase shifter transformers
 - To prevent overload of polish grid caused by wind energy generation in northern Germany
 - Implementation of shifters when energy flows originating in Germany exceed a predetermined threshold:
 - Transformers deflect the flows further along the border and thus decrease the system load by one direction cables
- ▶ Other countries profit due to the overcapacity – auctions for interconnector capacity
- **Guaranteed system security, faster integration of RES and a stronger internal energy market**

Example (3): RES Providing System Support

- ▶ Pilot: Statkraft Windpower Offshore with negative reserve capability : 5 MW negative reserve in January 2015
 - Stabilize short-dated fluctuations (when power frequency is above 50 HZ)
 - Adjustable within 15min
 - Provision of system support
- Thus, besides conventional power plants, also renewable power stations **have the potential and technical capacity** to increase the network stability and thereby help securing the overall energy supply system

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Germany's Nuclear Phase-Out: 2000/2002

- ▶ June 2000: SPD/Green-Coalition announces the **successive phasing out of nuclear power until 2021**
- ▶ (CDU)-Opposition lead by Merkel opposes this “Nuclear consensus”
- ▶ April 2002: Nuclear phase-out becomes **legally binding**
 - “Stade” closed down in Nov. 2003
 - “Obrigheim” closed down in May 2005

2010: Postponement of Nuclear Phase-Out under CDU/FDP Government

- ▶ November 2010: Merkel-Government decides **to extent the lifespan** of all 17 nuclear power plants by 12 years in average
- ▶ Final phase-out deferred to 2040
- ▶ 150.000 people demonstrate against the lifetime extension



Fukushima Daiichi Nuclear Disaster (2011) leading to final Phase-Out in 2022

- ▶ 14. March 2011: Merkel announces **3 months moratorium** for 8 nuclear power plants to initiating security check ups
 - ▶ Massive public demonstrations demanding immediate exit
 - ▶ June 2011: **Gov. proposes** to terminate 7 oldest nuclear power plants (+ „Krümmel“); phase-out by 2022
 - ➔ BUT: Provision suggests to allow for one active nuclear power plant as back-up for possible blackouts
 - ▶ After vexed discussions:
 - back-up provisions nullified
 - irrevocable closure of 8 plants
 - successive phase-out till 2022
- } legally effective from 01.08.2014

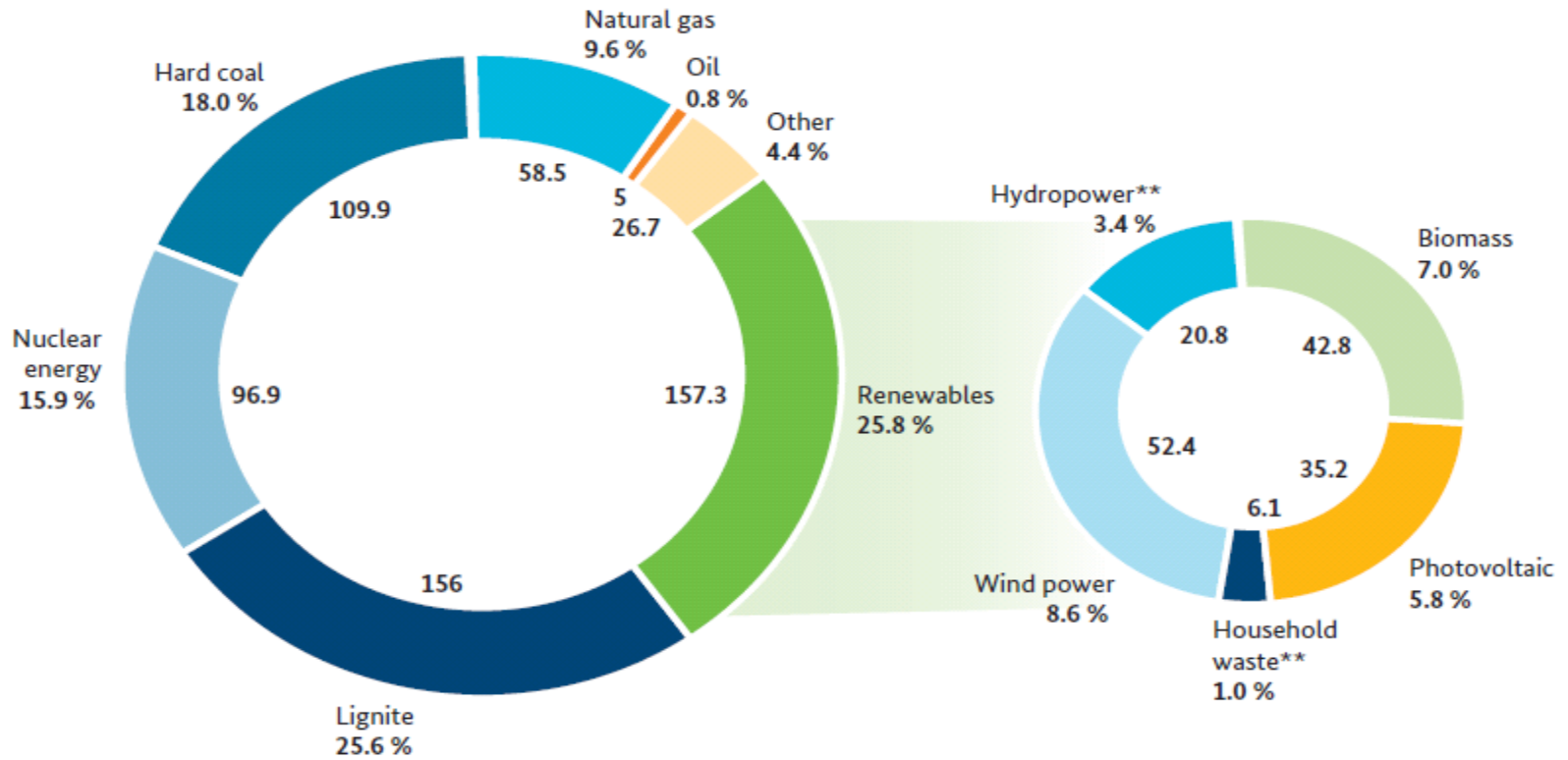
Pending Actions by Nuclear Power Plants Operators vs. German Government

- ▶ Vattenfall : €4,7 Billion compensation lawsuit
 - Immediate closure of „Brunsbüttel“ and „Krümmel“
 - Reference to International Center for Settlement of Investment Disputes (ICSID)
 - Energy Charter Treaty (ECT): „fair and equitable treatment“ of investors
 - Decision pending
- ▶ RWE / E.ON: €621 million compensation lawsuit
 - Incurred loss by 3 months moratorium
 - Constitutional appeal: forced phase-out by 2022
 - Decision pending

Energiewende as social project

- ▶ The energy transition – major social project: By 2030 at least 50 percent – and by 2050 at least 80 percent – of Germany's electricity should come from renewables
- ▶ In 2014 RES was for a majority of months the most important energy source in Germany
- ▶ In 2022, there may be about 200 hours at which the electricity production from renewable sources exceeds the entire electricity demand in Germany.
 - On the other hand, for about 240 hours a year there would be only 10 GW or less renewable energy available (mostly from hydropower and biomass). The challenge will be to ensure security of supply at these times.

Gross power production in Germany in 2014 (610 TWh*)

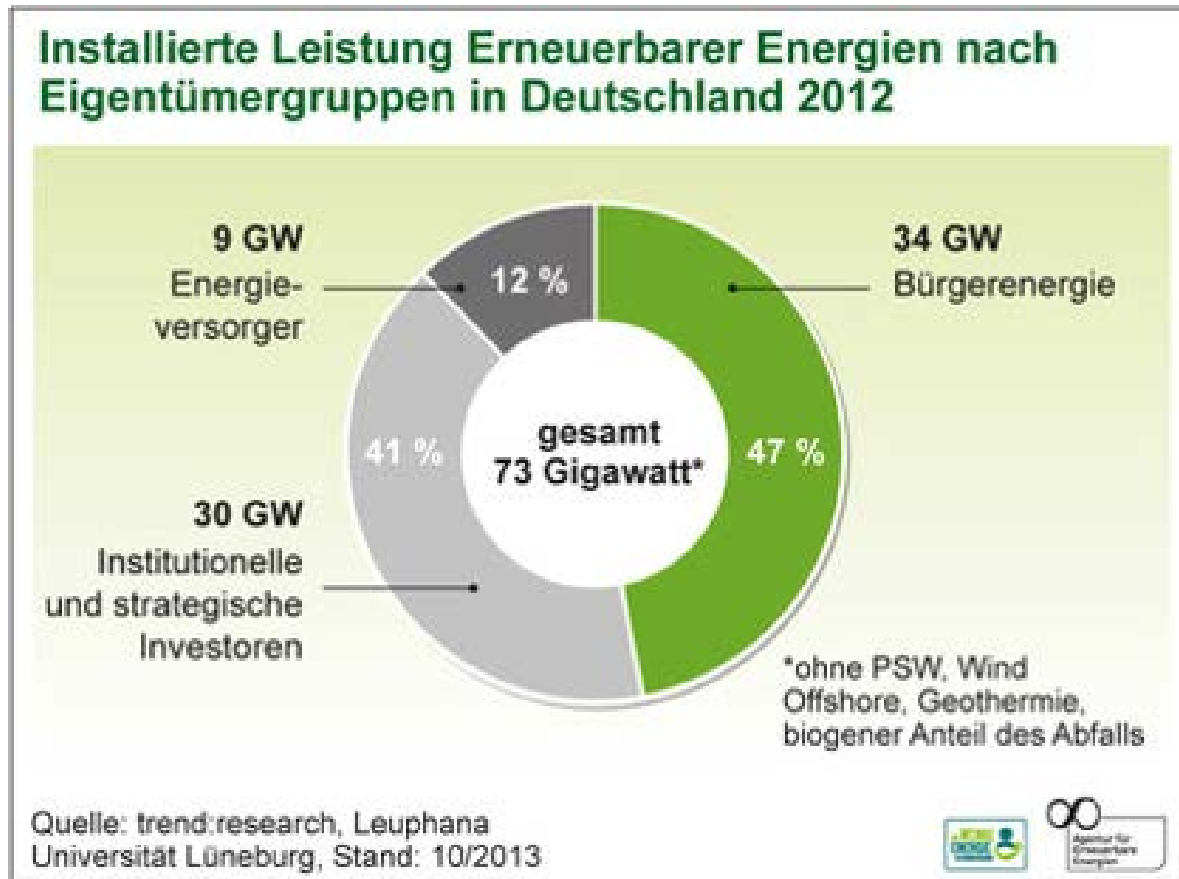


* Preliminary figures

** Regenerative part

Source: AG Energiebilanzen, status: December 2014

Ownership in renewables in Germany



Impact on the German Energy Market

- ▶ Contrary to apprehensions, no blackouts
 - Sufficient capacity to match demand, overcapacity overall in the market
- ▶ Electricity production from renewables rose from 17% (2010) to 26 % (2014)
- ▶ Smart grid adaptation expanding
- ▶ Storage
- ▶ Intelligent electricity management with multitude of players

Electricity Trade from and with Germany

German power exports still more valuable than imports

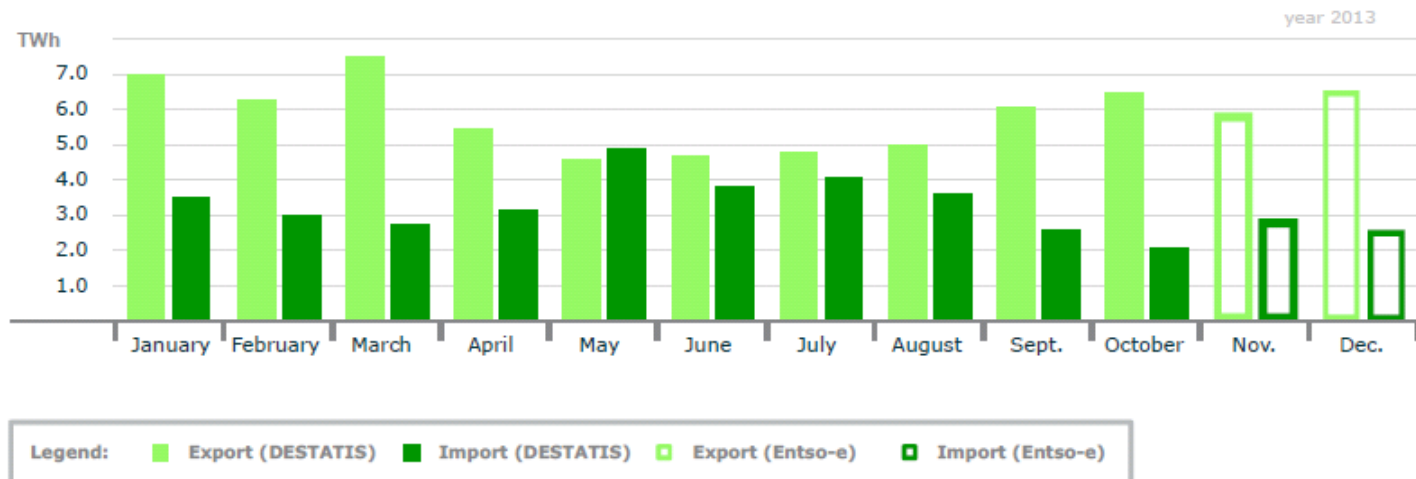
- 2013, the electricity Germany exported was 6.3% more valuable per unit than the power it imported –
- the exact opposite of the narrative that Germany is dumping excess renewable electricity on neighboring countries at low cost.
- France faces a particularly imbalance financially; German electricity is 24.4 percent more valuable.
- Source: Renewables International

May 2014



Electricity Export and Import

Electricity Export and Import



- In 2013 Germany exported approx. 70.4 TWh and imported approx. 38.9 TWh.

Graph: B. Burger, Fraunhofer ISE; data: Statistisches Bundesamt (DESTATIS); Entso-e

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Successful Projects and Cooperation (1)

- ▶ North-Western European (NWE) day-head market coupling (2014)
 - 15 states: Central Western Europe, Great Britain, Nordic and Baltic countries
 - 13 TSOs, 4 Power Exchanges
 - 1,816 TWh per year, daily value of over €200 million
 - 60 % of European power consumption
- ▶ Two pending projects
 - South-Western Europe (SWE) France, Spain and Portugal
 - Price Coupling of Regions (PCR): possible fusion of NWE and SWE to create one common harmonized European electricity market

Successful Projects and Cooperation (2)

- ▶ NordLink – subsea HVDC power cable (PCI)
- ▶ Germany's wind energy surplus transported to Norway
- ▶ Length: ~500km, capacity: 1400 MW, voltage: 500kV
- ▶ Construction costs: €1,5-2 billion -> 2019
- ▶ Benefits:
 - Increased security of supply
 - Wider market for power producers during times of surplus
 - Facilitation for increased production of renewable energies
 - More predictable thus, stable supply and price situation
- ▶ Complementary to SuedLink:
 - Electricity "highway" from North to South Germany
 - Prevents possible electricity scarcity in Bavaria (nuclear phase-out)

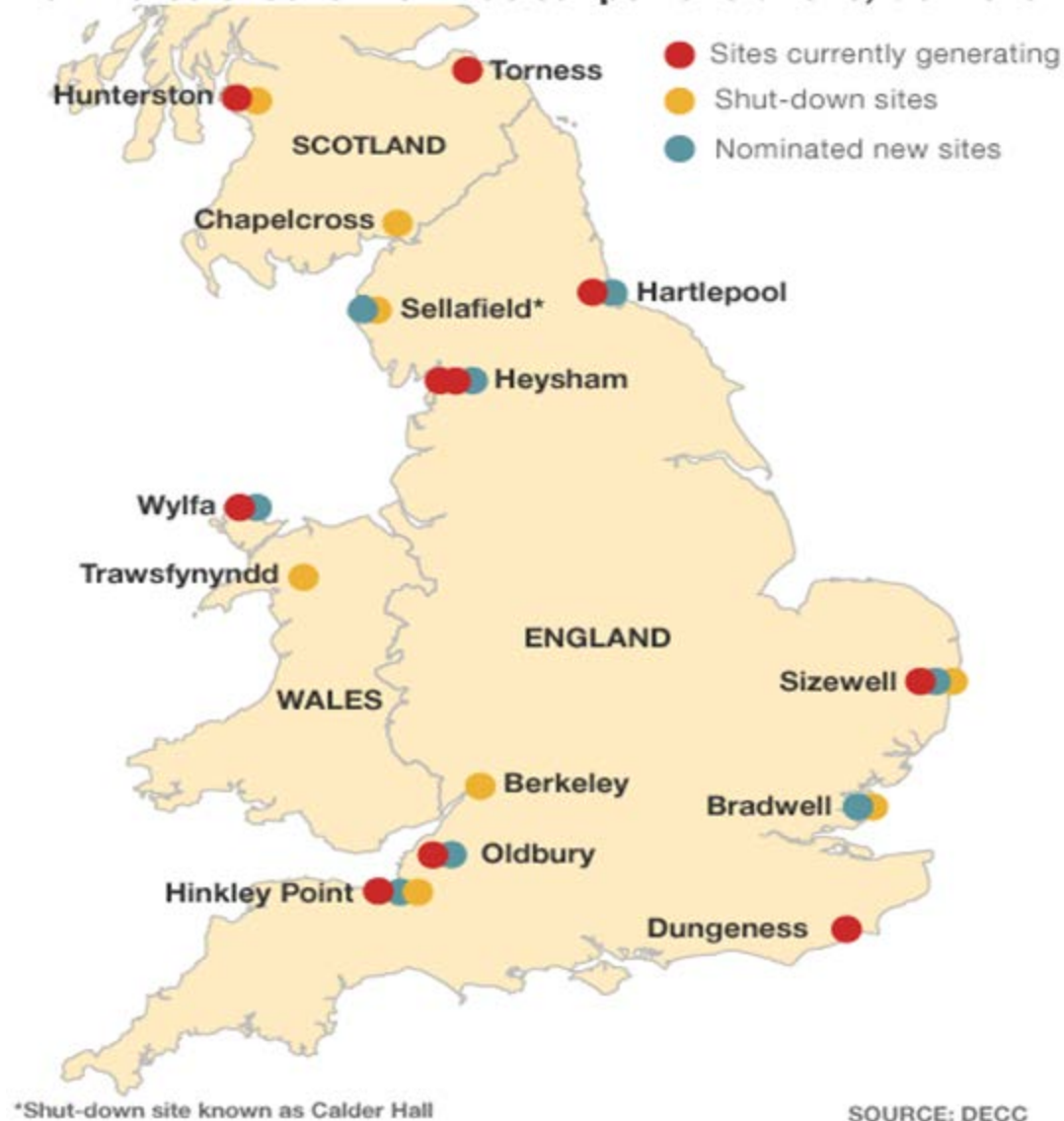
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United Kingdom: Hinkley Point C Power Plant

- ▶ An investment project of EDF Group to build two nuclear power reactors based on EPR technology of a 3,3 GW (approximately 7% of the UK electricity production).
- ▶ Total capital about €46 billion, financing of about €22 billion needed.
- ▶ Way of support - “Contract for difference”
 - Guaranteed price of €125 / MWh for 35 years;
 - Indexed and index will lead to increase of the guaranteed price to about €380 / MWh by the end of the financing;
 - Financed through a levy on consumers' electricity bills.

Nominated sites for new nuclear power stations, Oct 2010

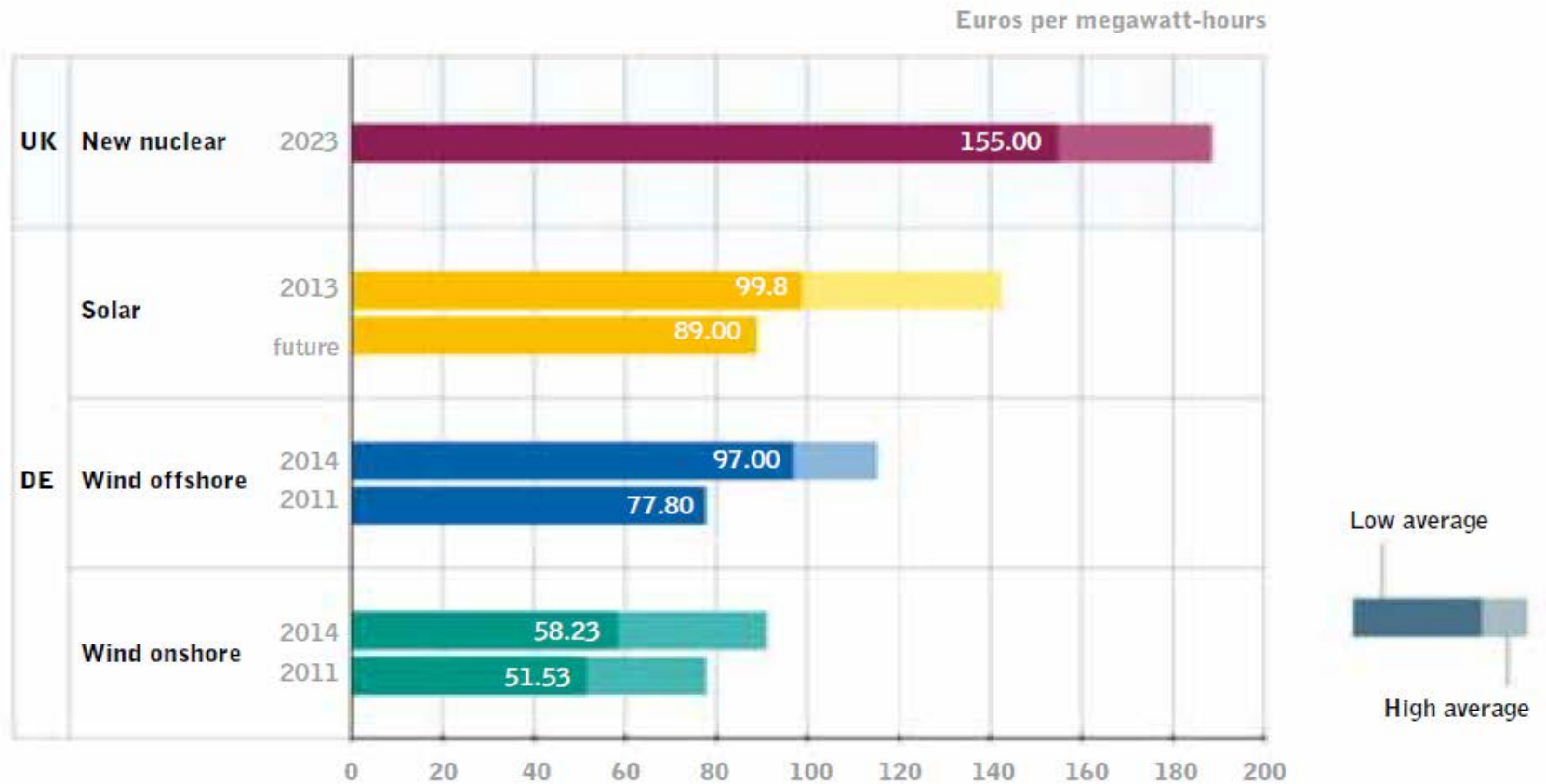


The Facts Financing

- ▶ The alleged State aid measure, what is it?
 - How? = A full financing package was notified to the Commission
 - “Contract for difference”
 - guaranteed price of 92,25 GBP /MWh for 35 years
 - indexed and index will lead to increase of the guaranteed price to about 279 GBP by the end of the financing
 - Financed through a levy on consumers` electricity bills
 - Compensation in case of „political shutdown“
 - Agreement on a state guarantee for the financing – but no details defined in the notification
 - Notification also included the possibility to add further State aid measures – upon later approval by the Commission

The Facts

A comparison of support level



Source : *Energytransition.de* based on figures by Thomas Gerke, 2014

Decision to open formal investigation proceedings

*"The Commission considers at this stage that the notified measure involves **State aid within the meaning of Art 107(1) TFEU.***

*The **Commission doubts** that the aid might be considered as compatible aid for the provision of a SGEI under the SGEI Framework.*

*Finally, the **Commission has doubts** that the notified measure can be declared compatible under Article 107(3)(c) TFEU and in particular that it effectively addresses a market failure and is appropriate. It also questions whether the notified measure can be deemed to have an incentive effect, to be proportionate, and is concerned about its distortive effects on competition.*

*The Commission does not intend to prejudge whether State aid to nuclear energy might be appropriate. The Commission **merely aims to highlight issues of concern** which it has identified in the specific measures proposed by the UK, and aims to carry out a more in-depth assessment of such issues in a formal investigation."*

Consultation on Hinkley

- ▶ E.g. the Austrian government reiterated the doubts of the Commission:
 - State aid to nuclear power – as a “mature and deployed technology – is **against logic any system of EU State aid law**
 - No market failure but “selection through market mechanisms” - if full internalisation of all costs and all subsidies considered – nuclear would not be competitive
 - Overcompensation and market distortion cannot be excluded
 - No services of general interest – as electricity production is a normal and financially viable activity
 - In particular – **nuclear power is not a common interest of the EU**
 - Not all Member States agree on nuclear power – and e.g. Austria has a long-standing anti-nuclear policy, Sweden, Italy, Belgium, Germany decided to phase out...
 - Despite potential decarbonisation aspects - environmental balance of nuclear power negative
 - Nuclear power has no advantage as regards security of supply over other technologies – and the uranium is 100% imported!
 - And even if so – the amount of the State aid for Hinkley Point C was seen as not appropriate – **neither necessary nor proportionate**

Approval of State aid by the EU Commission

▶ Commissioner Almunia (8. October 2014):

“After the Commission’s intervention, the UK measures in favour of Hinkley Point nuclear power station have been significantly modified, limiting any distortions of competition in the Single Market. These modifications will also achieve significant savings for UK taxpayers. On this basis and after a thorough investigation, the Commission can now conclude that the support is compatible with EU state aid rules.”

“As part of the investigation procedure, the Commission received extensive information and submissions from interested parties and the UK authorities. These new elements, together with the intense and comprehensive scrutiny process conducted by the Commission, have informed the Commission’s assessment. In particular, the investigation showed that the support would address genuine market failure, dispelling the Commission’s initial doubts. It also resulted in substantial changes to the level of support compared to the one originally notified.”

➤ BUT: No publication in the Official Journal of the EU yet!

Annulment action - Art. 263 TFEU? Austria (and Luxemburg) will go to Court against the EU Commission- competitors as well

bbh

- ▶ **Art. 263 TFEU/treaty on the functioning of the European Union:**
- ▶ “The Court of Justice of the European Union shall review the legality of legislative acts, of acts of the Council, of the Commission and of the European Central Bank, other than recommendations and opinions, and of acts of the European Parliament and of the European Council intended to produce **legal effects vis-à-vis third parties.** (...)
- ▶ It shall for this purpose have jurisdiction in actions brought by a Member State, the European Parliament, the Council or the Commission on **grounds of lack of competence, infringement of an essential procedural requirement, infringement of the Treaties or of any rule of law relating to their application, or misuse of powers.**
- ▶ (...).
- ▶ Any natural or legal person may, under the conditions laid down in the first and second paragraphs, institute proceedings against an act addressed to that person or which is of **direct and individual concern to them, and against a regulatory act which is of direct concern to them and does not entail implementing measures.**
- ▶ (...)

Thank you very much
for your attention.

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