

***„Germany and France:  
the impact and future of the  
Energiewende and ,la transition  
énergétique‘“***

***Presentation at PSIRU – Greenwich University***

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# Heinrich Böll

- Our namesake is the writer and Nobel laureate Heinrich Böll.
- He stands for the principles we are committed to: the defence of freedom, civic courage, active tolerance, and the cherishing of art and culture as independent spheres of thought and action.

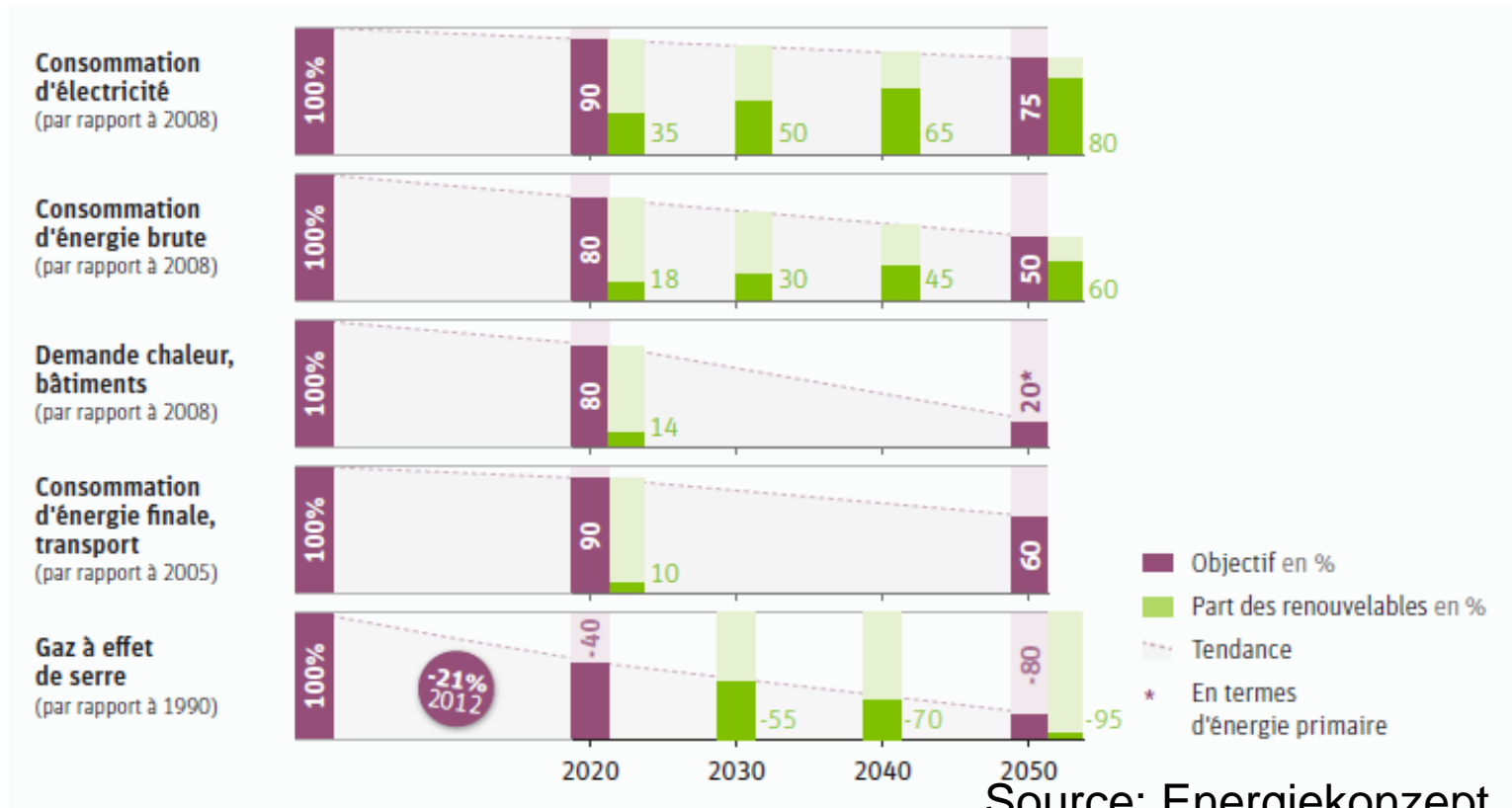
# The Heinrich Böll Foundation...

- is a catalyst for green visions and projects, a think tank for policy reform, and an international network
- is closely affiliated to the German Green Party
- promotes the development of democratic civil society at home and abroad
- defends equal rights and equal opportunities regardless of gender, sexual orientation, religion, ethnicity, or nationality
- supports cultural projects as part of our civic education programmes
- assists gifted, socially and politically active students and graduates in Germany and abroad
- is mostly financed through public funds (currently around 45 million euros per year)

# Energiewende in a nutshell: Why?

- Fighting climate change
- Reducing energy imports
- Stimulating technology innovation and the green economy
- Reducing and eliminating the risks of nuclear power
- Energy security
- Strengthening local economies and providing social justice
  
- ...not only Fukushima as a reason, the German Energiewende goes way back to the early 1980s/1990s!

# Energiewende: long-term objectives?



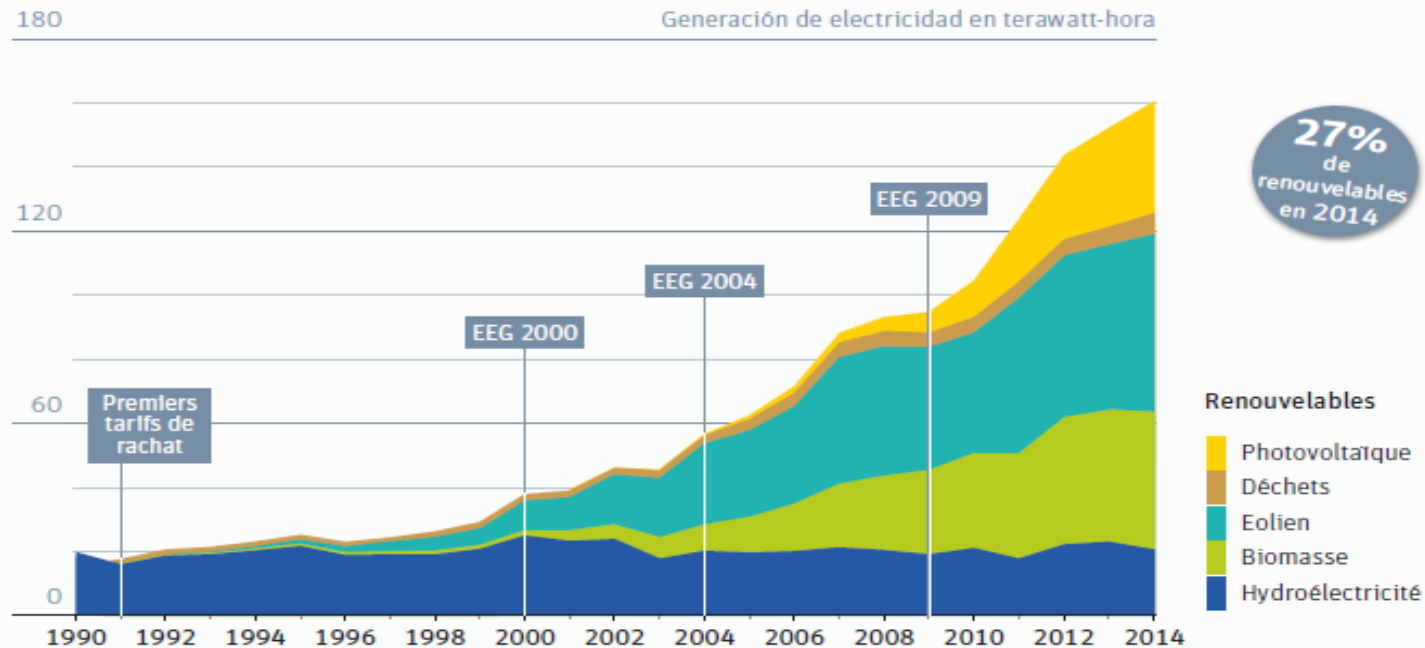
Source: Energiekonzept  
Germany, BMU

# Energiewende: how?

## Les tarifs de rachat contribuent au développement des renouvelables

Production d'électricité renouvelable en Allemagne, 1990-2014

Source : BMU



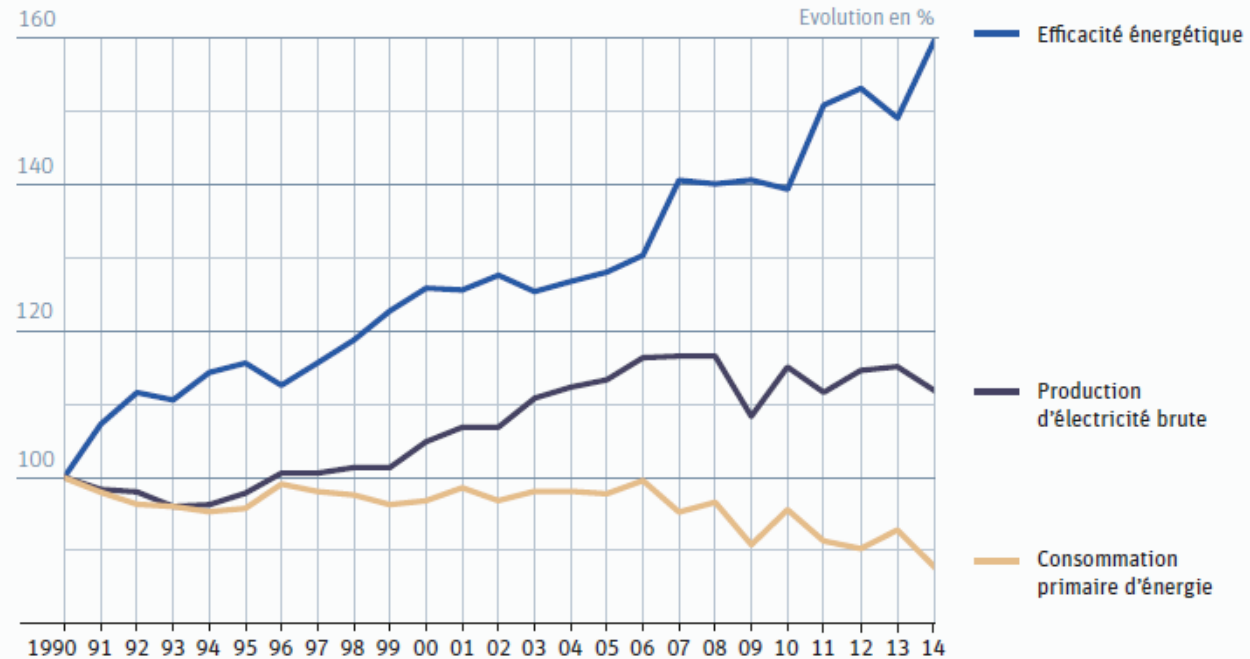
Source: BMU

# Germany is getting more value for less energy

## L'Allemagne crée plus de valeur avec moins d'énergie

La consommation d'énergie diminue malgré une production d'énergie qui augmente grâce à l'efficacité énergétique

Source : BMWi

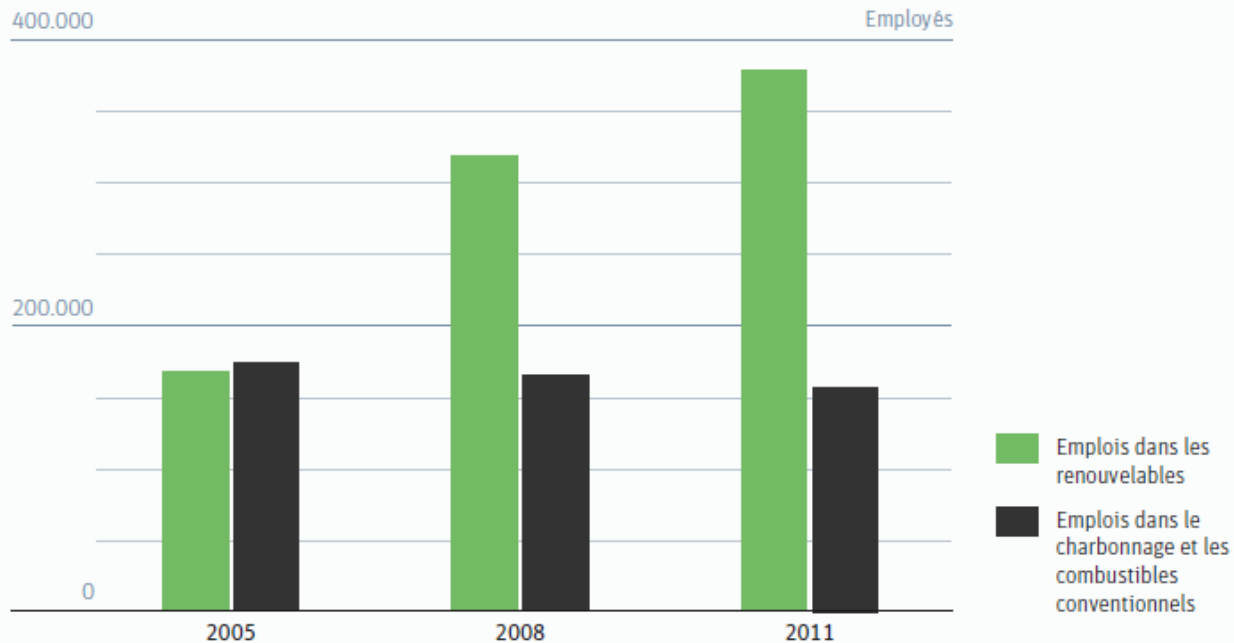


# RES create more new jobs than conventional energy does

## Les renouvelables génèrent plus d'emplois que les énergies conventionnelles

L'emploi dans les secteurs énergétiques renouvelable et conventionnel en Allemagne, 2005-2011

Source : BMU, BMWI



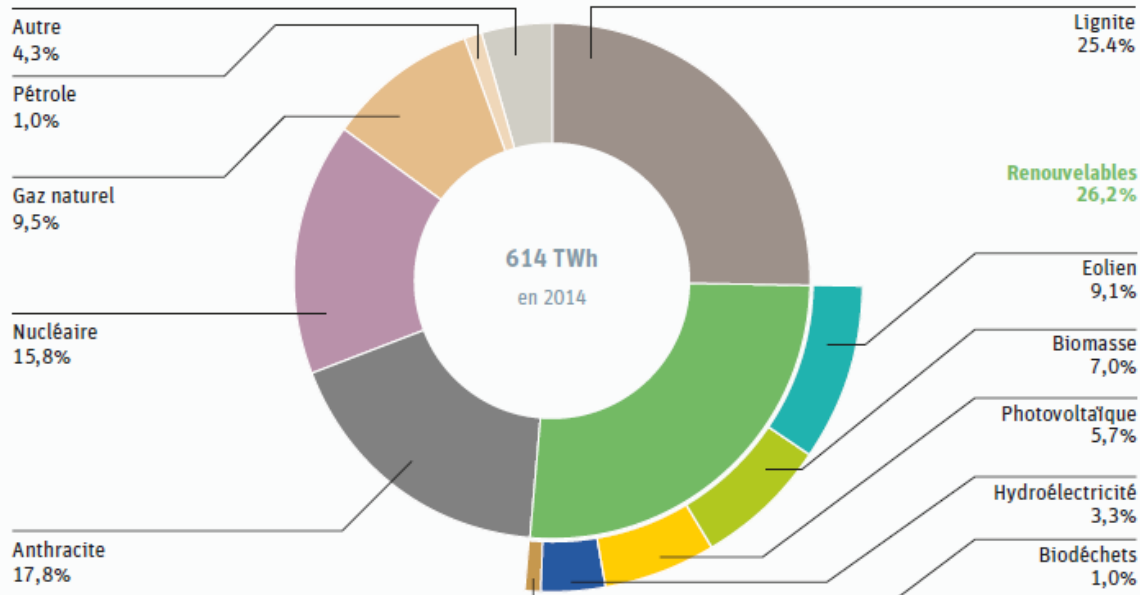


# Share of RES in gross electricity generation including exports, 2014

## Renouvelables en Allemagne: un pilier solide en pleine croissance

La part des renouvelables dans la production d'électricité totale en Allemagne, 2013

Source : AGEF, BDEW



## 2014: EEG 2.0

- **PV** limited to 52 GW installed capacity (2015: 39 GW), after that no longer eligible for FIT → uncertainty about how to enter conventional power purchase agreements
- **PV: Target corridor** for new annual PV installations of 2,5 – 3,5 GW (2014: ~1,9 GW)
- **Renewable Energy Surcharge also** on „direct consumption“, exemption for arrays < 10 KW and less than 10 MWh annual electricity consumption (currently at approx. 6,2 Cents/KWh)
- **Wind power: offshore 6.5 GW by 2020, 15 GW by 2030**
- **Wind power target corridor** for new annual wind installations of 2,4 – 2,6 GW (without repowering! Means an additional 2 GW as of 2022)
- **More leeway for German states**, problematic in Bavaria as it imposes higher distance between turbine and buildings (approx. 2 km)
- **Biomass:** 100 MW p.a.; mandatory direct marketing as of 2016 (EU law)
- **Feed-in tariffs apply only to new systems, remain stable til 2018**
- **Auctioning gradually in place as of 2017**

→ Source and further information: [www.energytransition.de](http://www.energytransition.de)

# 2015: The way forward?

- **2015: record year for RES:** wind power generation + 50% (4,7 GW new), RES overall share in electricity generation: 30%
- **Consumption:** higher than „planned“ in energy concept (-3,4% vs -10% by 2020)
- **Conventional energy:** slightly less for gas and nuclear, hardcoal and lignite constant. RES more internal, so coal production used for export
- **CO2 emissions:** -26% (comp. 1990)
- **Export:** 50 TWh (= ca. 8% of electricity production)
- **Stockmarket prices:** spot market price 31,60 EUR/MWh; below 30 EUR second half 2015
- **Approval rating** in population constantly high at 90%
- **Outlook 2016:** decrease in nuclear production, increase in RES (mainly due to wind), prices despite low stockmarket price probably higher due to levies and taxes

→ Source and further information: Agora Energiewende

## **France: *la loi sur la transition énergétique et la croissance verte (2015): Why?***

- Presidential campaign of Francois Hollande in 2012 to satisfy coalition agreement with the Greens: reduction of nuclear share in electricity production from 75% to 50%
- National debate on energy transition with all stakeholders in 2012-2013
- High reliance on French nuclear parc (58 NPP) economically not attractive and ecologically not sensible; monopoly of EDF slowly but steadily cracking

## France: *la loi sur la transition énergétique et la croissance verte (2015)*: How?

- 40 % reduction of GHG by 2030;
- Reduction of final energy consumption of 20% in 2030 and 50% in 2050;
- 32% Renewables in final energy consumption by 2030;
- Reduction of fossil energy sources of 30% by 2030 (in comparison to 2012);
- By 2025, reduction of nuclear share in the electricity mix down to 50% (from 75% today);
- A number of supportive actions such as interest-free credits for private building renovation, subsidies for switching from old Diesel to new electric cars, etc., totalling 10 bn €.

# Comparison France – Germany: similar ambitions, different politics

Main objectives of the energy transition until 2050		
	France	Germany
<b>2020</b>		
GHG emission reductions (compared to 1990)	- 20 %	- 40 %
Share of renewables in final consumption	23 %	18 %
Reduction of primary energy consumption	- 20 %	- 20 %
<b>2030</b>		
GHG emission reductions (compared to 1990)	- 40 %	- 55 %
Share of renewables in final consumption	32 %	30 %
Reduction of renewables in electricity	40 %	50 %
<b>2050</b>		
GHG emission reductions (compared to 1990)	- 75 %	- 80 bis 95 %
Share of renewables in final consumption	--	> 60 %
Reduction of primary energy consumption	- 50 %	- 50 %

Source: A. Rüdinger, IDDRI, 2014

# Thank you!

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**About EnergyTransition@EU:**

*EnergyTransition@EU is a network of the Heinrich-Böll-Stiftung offices in Berlin, Brussels, Paris, Prague, Thessaloniki and Warsaw. It aims at discussing challenges and opportunities of Energy Transition(s) in Europe; strengthening a mutual, solution-oriented dialogue among the EU Member States and promoting visions for a European Energy Transition.*

<http://energytransition.de/2015/06/energy-transition-think-european/>