



The Federal Ministry
for the Environment,
Nature Conservation
and Nuclear Safety

Renewable Energy Sources Act in Germany (EEG) - Current Status and Perspectives -

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**Federal German Ministry for the Environment,
Nature Conservation and Nuclear Safety (BMU)**

**Strategy WS. FIT and their application in the United States,
Washington, D.C., March 2, 2008**



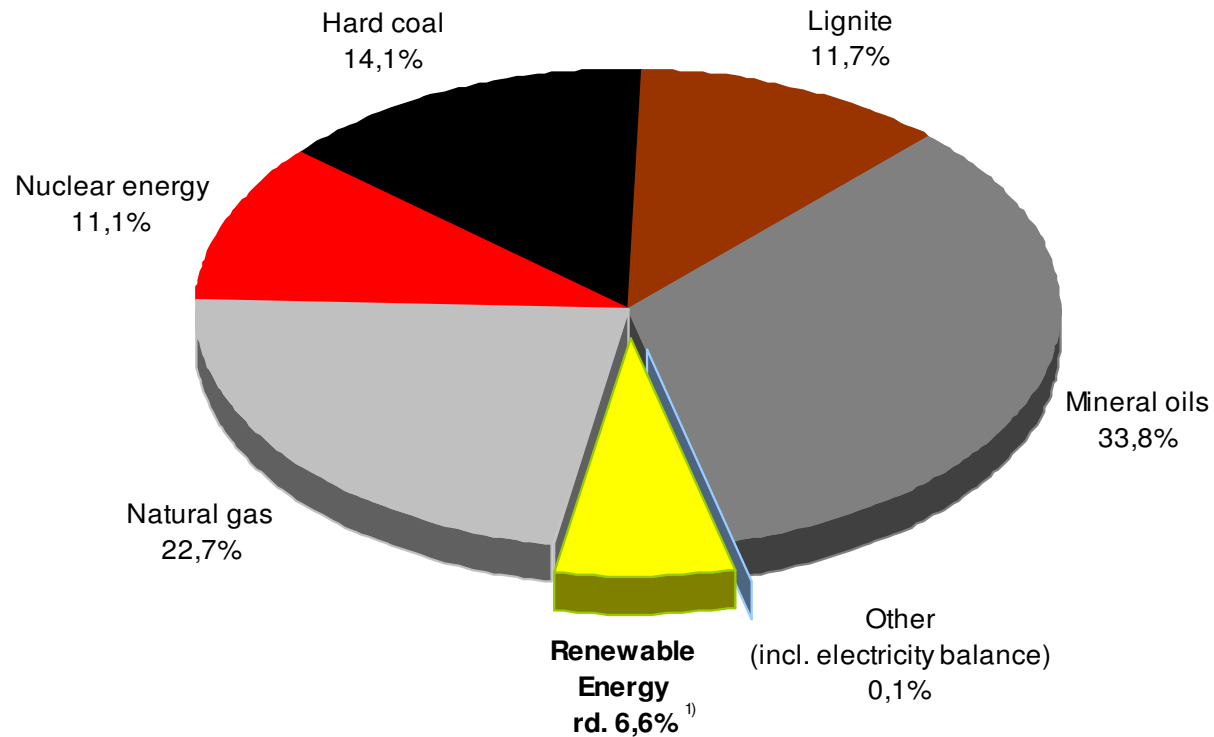
Content

- 1. Development of Renewable Energy in Germany**
2. Current Status of policy (⌘ power)
3. Impacts
4. Perspectives for future development



Structure of primary energy consumption in 2007

Total: approx. 13.842 PJ

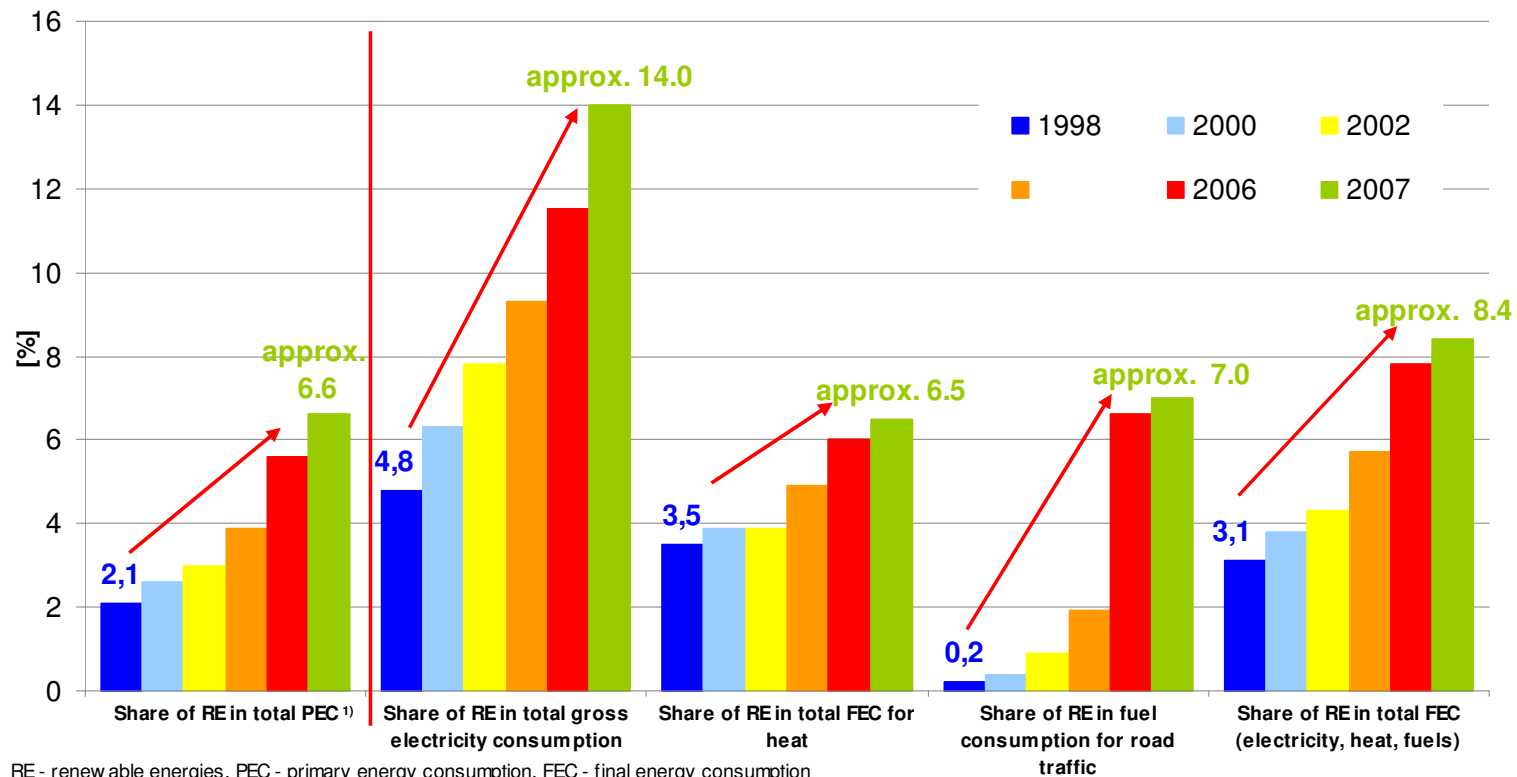


Source: BMU according to AGEE-Stat; using data from Working Group on Energy Balances (AGEB); physical energy content method;
Version: November 2007, All figures provisional

¹⁾ A calculation based on the substitution method leads to an approximately 2% higher share of renew ables.



Contribution of renewable energy sources to energy supply 2000 - 2007



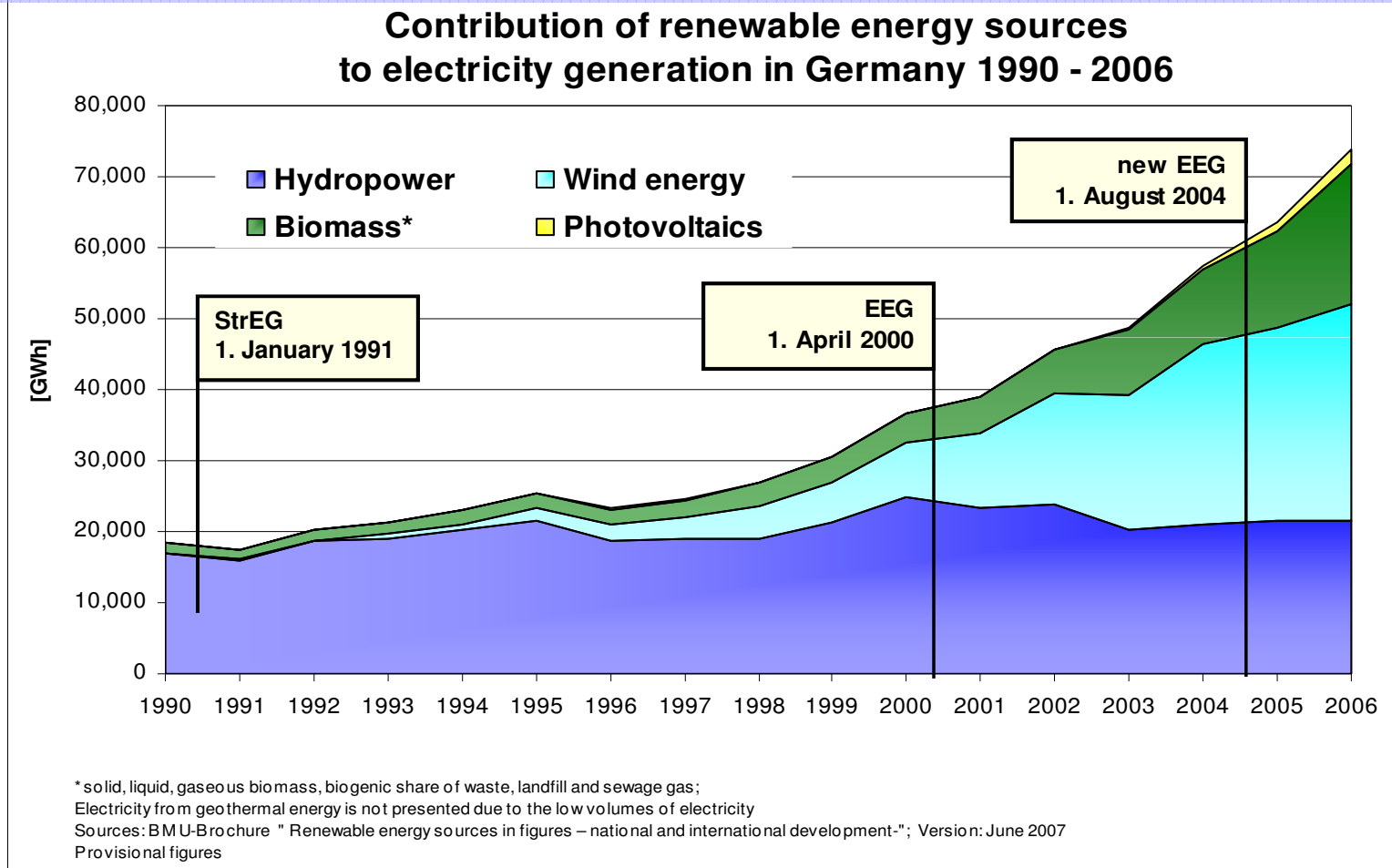
RE - renewable energies, PEC - primary energy consumption, FEC - final energy consumption

¹⁾ For calculating the share of PEC, the (official) physical energy content method has been used. A calculation based on the substitution method leads to an approximately 2% higher share of renewables.

Source: BMU according to AGEE-Stat; All figures provisional



Development 1990 - 2006





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Renewable Energy Act (EEG)

- Main Instrument: Renewable Energy Act \pm Feed in Tariff System for the promotion of power from RE
- Priority access for RE to the power grid
- Priority transmission and distribution
- Obligation of grid operators to purchase the electricity produced from RE



Renewable Energy Act (EEG)

- Fixed price ("tariff") for every kilowatt hour produced from RE for 20 years
- All different types of RE are considered and tariffs are differentiated by source and size of the plant
- Annual decrease of tariffs to follow the technical development (degression of -1,5% - -6,5%)



Feed-in tariffs (2006)

	2006 Cent/kWh	Degression
Hydropower	6.65 - 9.67	0%
Biomass (<20 MW)	8.15 - 17.16	1.5%
Geothermal Energy (<20MW)	7.16 - 15.00	1.0%
Wind energy (onshore)	5.28 - 8.36	2.0%
Wind energy (offshore)	6.19 - 9.10	2.0%
Solar energy	40.60 - 56.80	5% - 6.5%

Sources: BMU. www.erneuerbare-energien.de, Stand: September 2006



Renewable Energy Act (EEG) Equalisation Scheme

- Additional costs for electricity from RE (Tariff minus market price) are equalised between all grid operators and electricity suppliers
- Additional costs are passed on to the consumer to balance geographically



Renewable Energy Act (EEG)

- Creates long term planning security \pm Crucial to investors
- Gives technology-specific incentives \pm Crucial for driving new technologies into the market
- Adapts to technological development \pm Fostering innovation



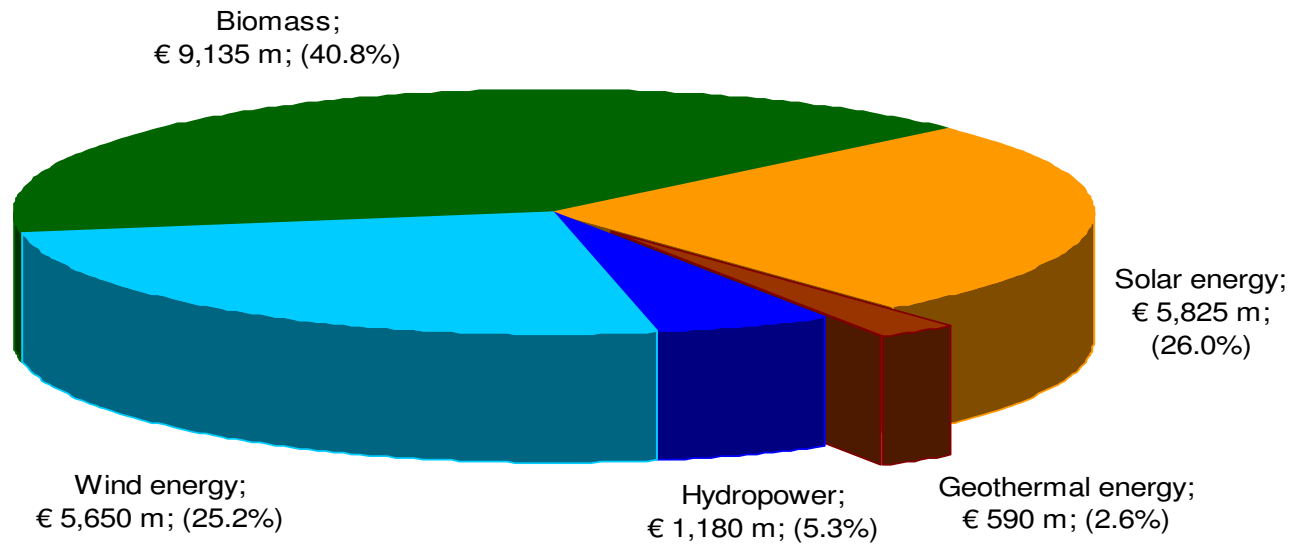
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Economic Impact: Development of New Industry

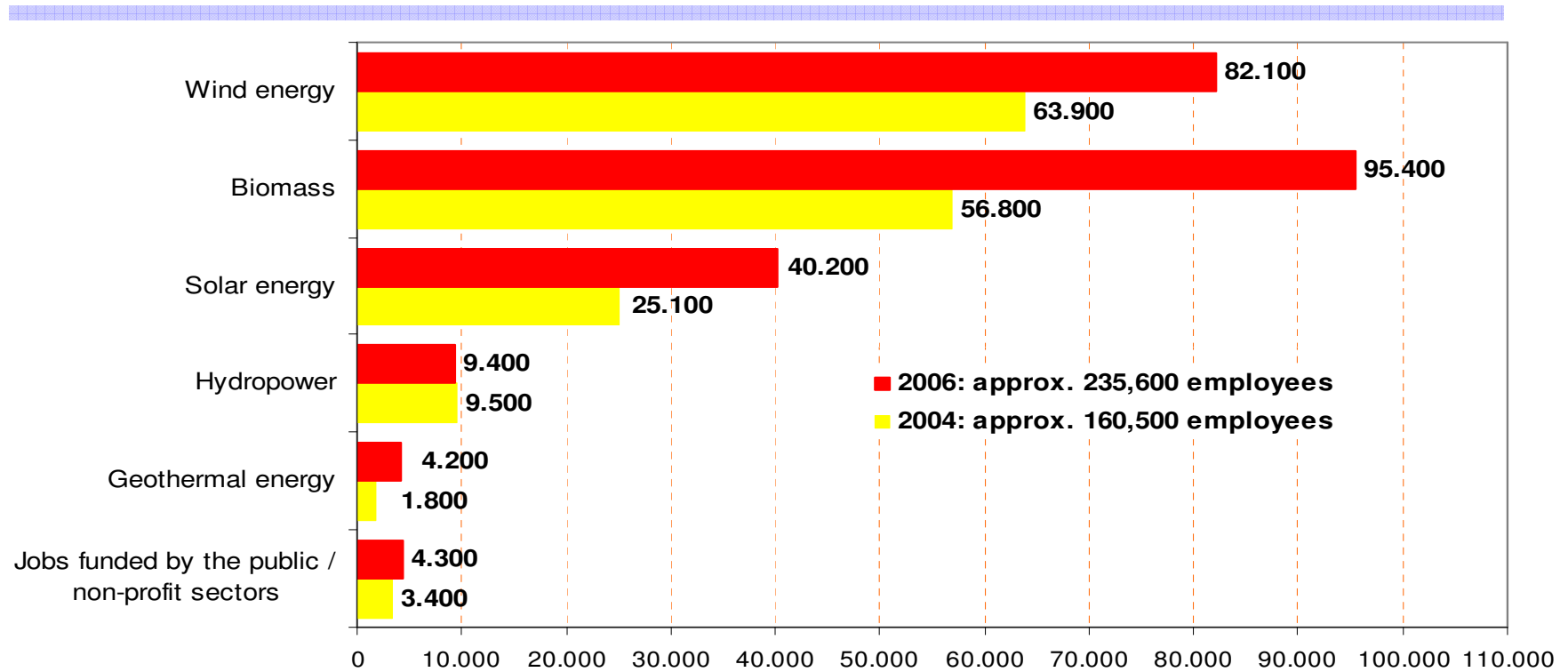
**Total turnover with renewable energy sources
in Germany in 2006**
Total: approx. € 22.4 billion



Sources: Internet Update BMU-Brochure "Renew able energy sources in figures – national and international development"
Version: November 2007; provisional figures



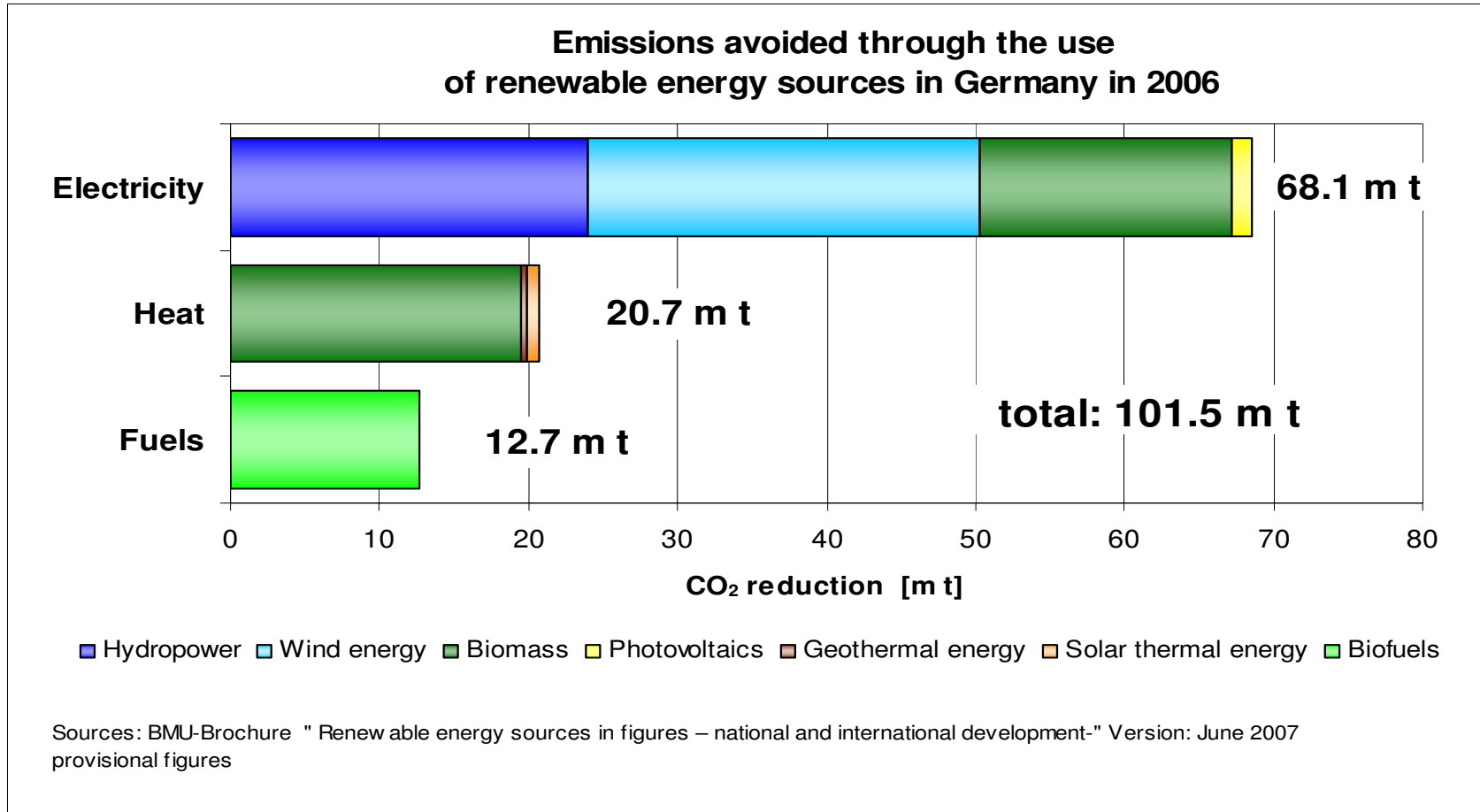
Economic Impact: Employment



Sources: BMU "Renew able energy: Gross employment 2006, final reprot of the proposal " Effect of increased use of renew able energies on the German labour market - Follow up" Version: September 2007



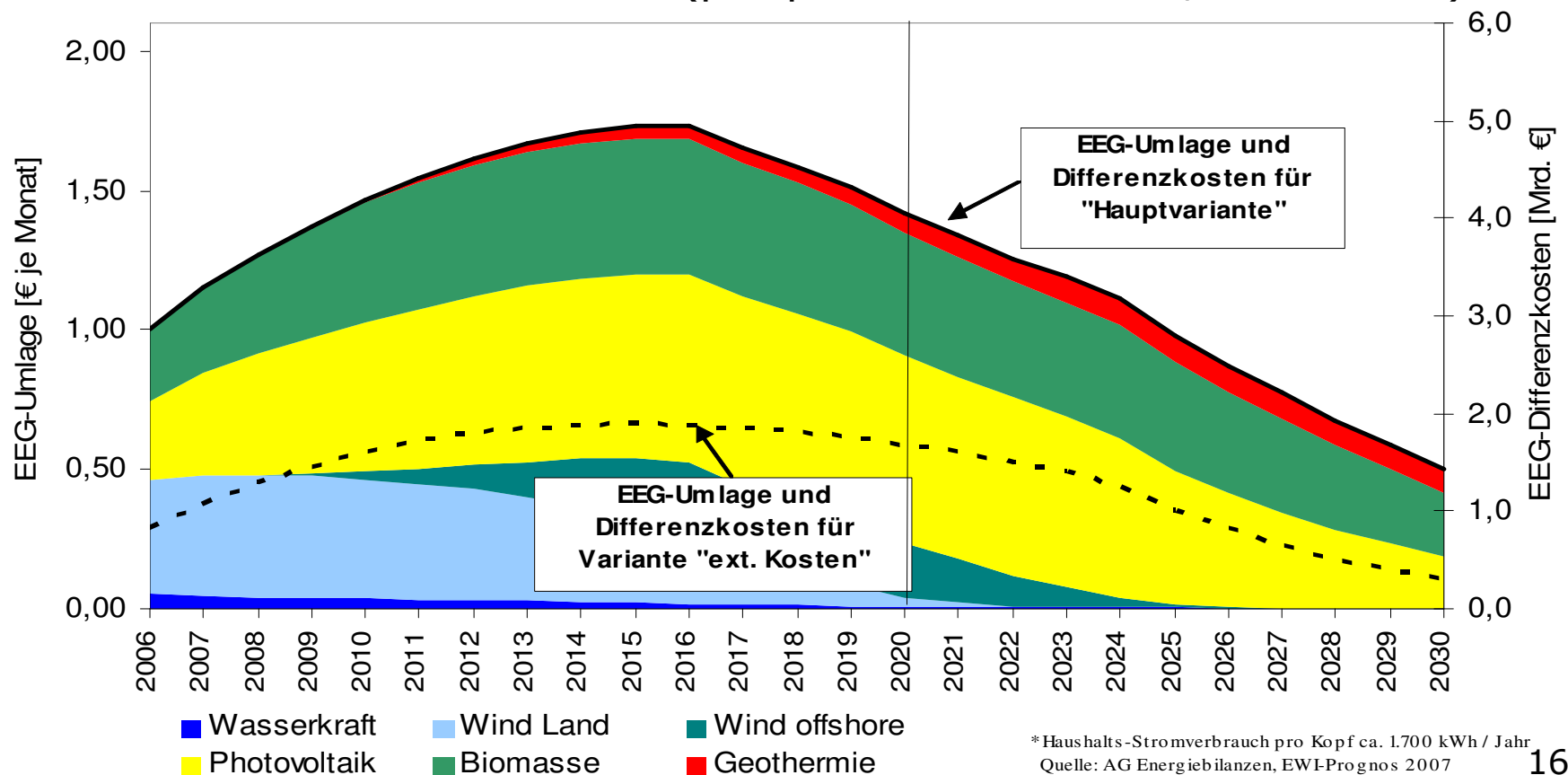
Climate Impact: Reducing CO₂ Emissions





Additional Costs 1990-2030

Development of the estimated differential costs and the additional EEG-Costs for households (per person and month, basis 2007)



* Haushalts-Stromverbrauch pro Kopf ca. 1.700 kWh / Jahr
Quelle: AG Energiebilanzen, EWI-Prognos 2007



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Amendment of EEG in 2008

- Evaluation of policy: EEG review in 2007
- Report on experience with EEG presented in November 2007
- Basis for amendment of EEG in 2008



Result of EEG Review

-
- Policy has proven to be very effective (Doubling of RE share in 6 years, impacts on innovation and job creation, climate protection)
 - No structural changes needed; But adjustments to increase efficiency and to tap potential of innovative technologies:
 - **Wind Offshore technology needs to be accelerated**
 - **Repowering of onshore wind needs to be supported**
 - **Incentives for Combined Heat & Power need to be improved**
 - **Cost efficiency of PV needs to be improved**
 - **Grid Integration needs to be improved**



Integrated Energy and Climate Package

- 29 measures agreed by the Government in August 2007 at Schloss Meseberg
- Target: - 40 % GHG until 2020 compared to 1990
- To implement EU energy & climate policy





Integrated Energy and Climate Package

New targets for RE for 2020....

• **Electricity** **25-30%**

• **Heating:** **14%**

• **Biofuels:** **17%**

... How to achieve these

⌘ **Continuation of EEG / Feed-In-System**

⌘ **Development of RE Heat Law: Incentives + obligation**

⌘ **Quota / Blending Obligation**

⌘ **RE Target for 2020: 18-19% (FEC)**

⌘ **Target for Electricity will be revised in the amended EEG**



- Cooperation of Feed-In-Countries initiated at the *renewables2004* conference in Bonn
- Workshops for exchange of experience and coordination of policies
- Growing interest in exchange due to ongoing debate in EU on the new framework directive for RE („Trade versus FIS“)
- Next WS on 7-8 April in Brussels with Governments, Commission, MEP, stakeholders



Conclusions

- Policy has been very effective in developing RE in Germany
- Bringing down costs through EEG helps deploy RE in Germany as well as in other countries
- EEG needs to be further developed to meet the requirements of EU policy on energy and Climate but is the right way to move ahead altogether
- Other countries go similar way: Feed-In-systems implemented in 18 EU MS, ca. 40 countries worldwide (see Global Status Report on Renewable Energies 2007)



The Federal Ministry
for the Environment,
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Thank you very much !

More information is available at:

www.bmu.de

www.erneuerbare-energien.de

www.feed-in-cooperation.de