


Towards a Common Energy Policy for Europe

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Carbon neutral journey with  greenmiles

Who am I?

- 20 years of experience in the energy field
- Worked at several scientific institutes for 12 years
- Worked in the electricity industry for 5 years
- Since 2004: energy & carbon consulting
 - Based on scientific tools
 - Latest project: **Electricity market model deeco-s**
 - In cooperation with the Technical University of Berlin
- 2007: Formation of the new **Institute for Energy and Climate Policy**
together with a number of German experts

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Your Questions

- Priorities
- Objectives
- Targets

Answers split

- Why markets?
- Supply side: Electricity production
- Demand side: Heat, transport, electricity use

- Here: Key messages
 - Supporting material based on data and model results available upon request

Why Markets?

- Markets have proven to be the best way
 - to promote welfare and
 - to trigger technological innovation.

- Markets are a tool, not an end in itself.

- Markets do not address
 - social security
 - intergenerational justness
 - environmental issues

- Preconditions for the functioning of markets
 - Complete and symmetric information
 - No single player should be able to influence the market price

⇒ **Markets require a distinct, stable and predictable framework**

Electricity production

Leave it to the market,

- Huge effort to liberalize electricity markets in Europe since the 1990ies
- Infrastructure is functioning well (at least in principle)
- Economic instrument to tackle climate change is in place
 - EU Emissions Trading Scheme
- Some technologies using renewable energies are rapidly approaching competitiveness
 - Wind energy -> 5-10 years

but

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Electricity production

Leave it to the market, but make sure that the market is functioning!

- **Market power**
 - Mounting evidence that German market is distorted -> VIK-Studies
 - *Create a truly European market*
 - Enlarge inter-connector capacities
 - *Ensure market access*
 - Separate transmission and production
 - *Limit market share that a company may hold*
- Repair **design problems** of emissions trading
 - Huge windfall profits for utilities: In Germany alone several billion Euro per year
 - In Germany, ET is so far a support program for coal-fired power plants
 - ⇒ *Start auctioning allowances a.s.a.p.*
- **Integrate renewable energies** into the markets where possible
 - Start trading electricity from wind energy and biomass at power exchanges

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Heat, Transport, and Electricity

- If you want to tackle security of supply, sustainability, competitiveness at the same time, the key is:

Energy efficiency

- 50% reduction of specific energy consumption is feasible in most fields at moderate or no additional cost, especially in end user applications
- But, experience shows that
 - it will not be driven by energy prices (too slow) and
 - it will not be driven by voluntary action.
- Second most important:
 - **Diversification** of technologies, resources and sources

The "Moon Landing Approach"

- If ambitious policy objectives are to be met, we need a courageous effort
 - led by society's leaders
 - carried by broad support from the general public (and hopefully at some point by industry)
 - with ambitious technological targets:
 - **50% efficiency gains (specific!)**
 - **50% renewable energy sources**
 - **by 2030**
- Markets will not drive this development
 - Triggering it with energy taxes will take too long, require too high prices and will thus meet fierce opposition
- Therefore:
 - *Performance standards where necessary and feasible*
 - *Stand-by, cars, appliances, ...*
 - *Public money: Space heating*

And ...

- **Don't let industry lobbyist discourage you.**
 - They have outsmarted you too often.
 - Electricity price effect of feed-in tariffs
 - Reduction of spot market prices > additional cost for users
- **Be careful with conventional top down economic modeling.**
 - Economic models cannot map fundamental structural changes!
 - e.g., general equilibrium model with no renewable energies
- **Stop waiting for the rest of the world**
 - In 2 years, American enterprises will reach out for the chances in this development.
 - In 5-10 years, Chinese enterprises will massively tackle the issue.

Conclusion

There is a good chance
to convert the risk of climate change
into an economic chance for Europe.

To grasp the chances will require quick and dedicated action.