Decarbonisation via market integration

XXV. Athens Forum

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Creating an EU Energy Market
Benefits of the internal energy market: 
*yearly savings*

**Electricity:**
€12.5 - €40 bn per year

**Gas:**
up to €30 bn per year

* Study: Benefits of an Integrated European Energy Market (9/2013)
Internal Energy Market - the idea:

• Large-scale investments – on fragmented markets?

• Security of supply – without cross-border infrastructure & cooperation?

• Synergies (Aggregation, liquidity, competition,...)

• Focus: Climate protection
Main Asset:
Integrated EU grid
Electricity Market Coupling -
Disruptive change: From central / baseload to decentral / volatile

**Old Electricity World**

**New Electricity World**
Who can deal better with short-term pricing?

A regulator?

A power exchange?
Markets - a vital tool for the Green Deal

Renewables require aggregation!
Markets - a vital tool for the Green Deal

- Level playing field + strong short-term markets + demand response = €9.5 billion/year of cost savings by 2030;

- Coordinated approach to resource adequacy = capacity savings of ~80 GW (4.8 b€/year of investments!)
Markets - a vital tool for the Green Deal

Electricity production Europe
ambitious scenario – ENTSO-E area

- More expensive technologies must be used more frequently
- In 2050 RES curtailment increases by approx. 150TWh.
- Increase in emissions is the result of higher use of natural gas esp. in 2040 and 2050

Effects of a delayed NTC-expansion | DG Energy | Brussels - 13.05.2019
Market-based **electricity trade across borders**

=> Also a tool for decarbonisation?

Example: IEA study on potential in China*:

- **Introduce market based dispatch & spot markets with market coupling**
- **Allow trade between regions and build more interconnections**
- **Give flexibility a price**

  ⇒ **operational cost:** 15% reduction (USD 63 billion(y)

  ⇒ **Electricity price:** -10%

  ⇒ **CO2 emissions:** **minus 750 million tons/y** [equals all German emissions (!)]

*https://webstore.iea.org/china-power-system-transformation
“Renewables Require Aggregation”

⇒ Market-based electricity trade across borders is a BEST PRACTICE for the Green Deal
So: What are then the obstacles to cooperate in the region?

- **Money?** *(but: most infrastructure is already prepared)*

- **Missing common rules?** *(but: 3rd Package applies)*

- **Hesitation to depend on neighbours?**
  => see Athens Forum 2019: “lack of political support” as main reason for slow progress (49%)

=> Let’s find out & discuss solutions!
Thank you very much