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CONSEIL MONDIAL DE L'ENERGIE

Renewables in Europe & Related Issues

-WEC-European Findings-





The Current Obstacles

Political obstacles

- contradiction: European market vs. National politics;
- contradiction: free market vs. increasing share of subsidized generation;
- time scales: long-term oriented market vs. election periods

Technical obstacles

- bottlenecks in the electricity grid: connection, flexible back up, extension etc.

Market obstacles

- Lack of a clear European market design



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Current profile of Market

The questions we may ask us:

1. The EU-fixed targets versus a market rules?
2. The grid capacities: to which extend more RES?
3. Who should pay for connecting RES-E to grid?
4. Why needs for European-wide grid extension??
5. Supportive schemes: effective or discouraging?
6. Should different RES technologies be equally supported?
7. Which criteria for making RES commercial?

Renewable targets in the EU

Ambitious targets

	Energy demand in 2020	Renewables share in 2020 (%)	Renewables in 2020 (TWh)
Gross final energy consumption	13,800 TWh	20.5 %	2,800 TWh
Electricity sector	3,500 TWh	33.9 %	1,200 TWh
Heating&Cooling sector	6,000 TWh	21.3 %	1,250 TWh
Transport sector	3,600 TWh	10.2 %	350 TWh

How to make this increase **technically** possible (e.g. grids)?

How to **integrate** renewables in the **competitive** market?

If not integrated, but subsidized, the liberalised share decreases to 66% without considering additional subsidies.

First is technical integration

- Demand/supply differences only resolvable via transport

→ RES-E need a **European-wide grid**:

- Reducing the impact of volatile RES production –flexible back up
- Easier access to balancing energy-Europe needs cross-border connects.
- Enhance security of electricity supply

- Simultaneously **regulation has to be harmonized**:

grid access, balancing energy, liquid intra-day markets ...

- **Research, Development, Deployment of Renewable Energy**

→ Different technologies need different treatment:

→ Some technologies quite close to market prices:

certificate market is a realistic opportunity to finance projects

→ Other technologies still in the early part of the learning curve:

fund research first and not deployment, before getting maturity

Integrating renewables: policy and
market solutions

Roadmap for Renewables

- **Harmonise** the various national renewable promotion schemes in Europe
- → **Integrate RES** into the existing regional electricity markets by replacing feed-in tariffs with market mechanisms.
- → **Cost of RES** to not impact that for traditional back up; and costs to be shared by all

Roadmap for the integration

- Promoting first **the RES technologies**, that are most **advanced**
- Integrate them into an **European-wide incentive system**
- **Harmonise regulation** (grid access, balancing energy, ...)

Approach also beneficial for the competition in electricity market



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