Political action towards 100% renewable energy and climate protection

GSC global virtual forum, 8th July 2021

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ENERGYWATCHGROUP
The devastating consequences of a 1.2 °C World

**Canada:**
- Temperatures >50 °C over days
- Numerous heat deaths
- Lytton fully burned down in one day

**Madagaskar:**
- 3-years-lasting drought
- Leading to more dangerous Sandstorms
- >1 million people face starvation

Sources: Canadian Press (1), Financial Tribune (2)
Climate neutralität by 2050 leads direct to Hot House Earth

The path to climate neutrality by 2050 misses the Paris climate targets
The rocky road to truthfulness in climate politics

Source: Energy Watch Group
100% Renewable Energy in Germany until 2030

First comprehensive Energy Scenario, that shows Germany’s pathway to 100% renewables until 2030

✓ Including all energy sectors electricity, heating, mobility, industry
✓ technological & economic realizable
✓ covering energy demand every hour, throughout the whole year
✓ PV growth: 86 GW per year

Source: Energy Watch Group

Präsident der Energy Watch Group
LCoE of Wind and Solar PV fairly below of Nuclear/Fossil Energy: Gap likely to increase

- PV 33%
- Wind Onshore 66%

... of the costs of hard coal electricity.


Präsident der Energy Watch Group
Disruptive deployment of rooftop PV: Vietnam shows what’s possible with political will

Deployment rooftop PV Germany (MW)  
83 Mio residents

Deployment rooftop PV Vietnam (MW)  
93 Mio residents

Reasons:
- Bureaucracy
- Auctions
- „Solar tax“

Reasons:
- Good RE law with FIT
- 0.082 USD/kWh

Sources: pv-tech, BNetzA

* Own estimation on basis of data by the German Bundesnetzagentur.
Complete Concepts for 100% Renewables

- **Renewable energy** for: heat, cooling, mobility, electricity, industry
  Wind, solar, hydro, waves, bioenergy, geothermal

- **Storage**: hydro pump; batteries, power to gas; ice (heat) storage; bioenergy

- **Digitalisation**: Big data; smart homes; smart cities

- **Key**: bi-directional charging
Policy Recommendations

- Feed-in-tariffs crucial for small and medium scale, up to 50 MW
- New FIT law for combined 100% REN
- Auctions only for utility-scale projects
- Abolish fossil and nuclear subsidies
- Carbon, methane, radioactivity tax
- Research, education & campaigning
- Reducing licensing obstacles

Not successful:
- Certificate systems
- Emission trading

Source: Energy Watch Group
Thank you very much for your attention