HOW MUCH is the EUROPEAN GREEN DEAL?

-renewable energy is a center piece of any climate policy

-conventionel power sells at about **4.2 cents** (2019), futures at **4.6** (2021-25)

-modern wind energy in Cologne or Leipzig can be produced at **3.9 cents, *it's even cheaper!***

-the **Windmap** shows even higher wind speeds all over Europe

-existing operating coal plants more expensive than new renewables in Europe

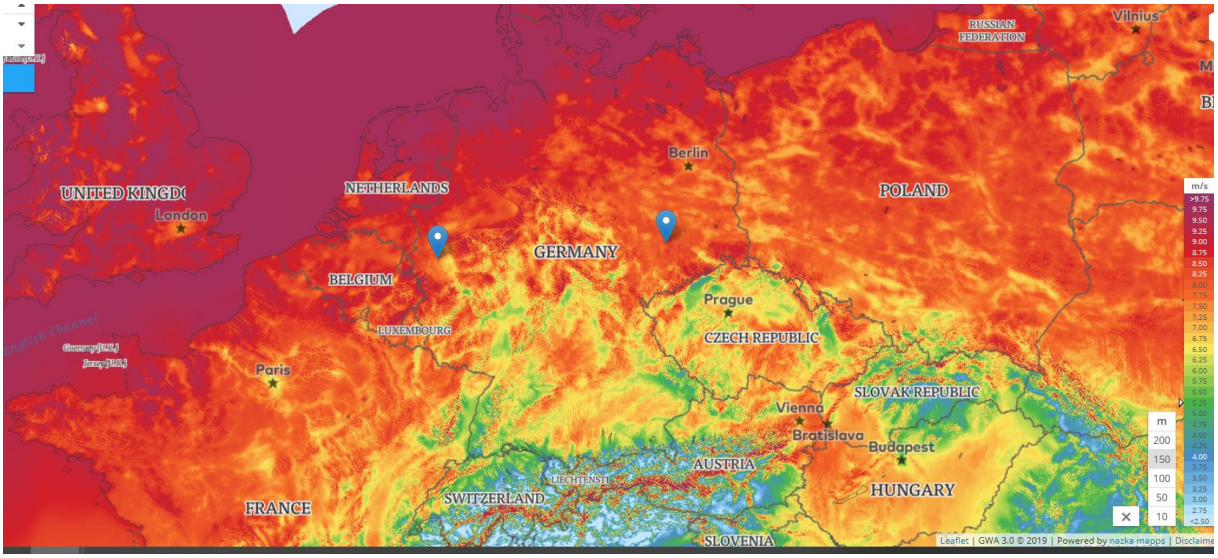
-SUMMARY: The center piece of the EUROPEAN GREEN DEAL – ***it's even cheaper!***

Fridays for Future demands political actions to solve the climate crisis, others fear the costs of climate legislation allegedly hurting the economy and resulting in unemployment.

Wouldn't it be nice if actions on climate were for free? Everybody would support it, the economy and the young people. We have researched it.

The **center piece** of any policy to seriously take on climate change is the buildout of **renewable energy**. Whether you need green power for **E-mobility**, for carbon free **home heating** or in a carbon free digital **economy**, you always need renewable energy.

WIND Firstly, let's check out the european **windmap** (picture below), yellow shows moderate winds, orange and red are high wind speeds. We now ran **economics** for wind energy for 2 sites in Germany, **Cologne** and **Leipzig** with approximately the same wind speeds (light orange). We used modern type 5MW wind turbines, current manufacturers' pricing, current financing conditions and interest rates for 25 years. We compared the results to the average costs for coal power (incl. 25,- per metric ton carbon certificates).



Windmap for central Europe (annual average values), yellow is moderate winds, red is strong winds www.globalwindatlas.info

RESULTS

historic power pricing whole sale power market EEX (2019)	**4.2 cents**
EEX Futures (2021-25)	**4.6 cents**
Wind power (Cologne and Leipzig)	**3.9 cents**

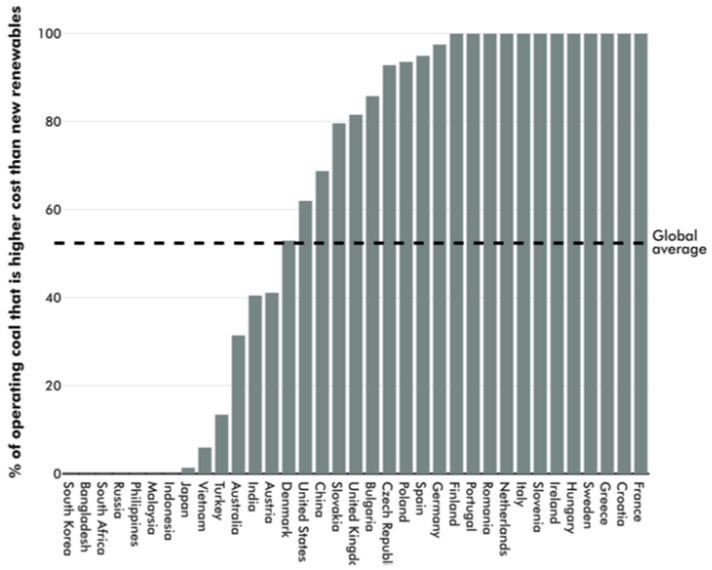
The results show that **new** wind power today is already ***cheaper*** than existing, fully depreciated coal power. Consequently, if I were to pay windmills the price for conventional power, a portion of the wind power would be **for free**. Similar results were obtained for **solar energy**. And, once wind and solar farms are fully depreciated, they would produce even cheaper power with marginal costs towards zero – almost for free.

Interestingly, the windmap shows that all countries in the EU have such orange wind potential if not better (red resource).

OPERATING COAL more expensive than NEW RENEWABLES in EUROPE

Indeed, a recent economic analysis found that pretty much all EXISTING coal plants in Europe are operating at higher cost than NEW renewables. (100% coal plants too expensive in: France, Croatia, Greece, Sweden, Hungary, Ireland, Slovenia, Italy, Netherlands, Romania, Portugal, Finland / 90-95% of coal plants too expensive: Germany, Spain, Poland, Czech Republic / 80-90% of coal plants too expensive: Bulgaria, United Kingdom, Hungary, Slovakia)

Figure 2. Percentage of operating coal capacity that is higher cost than new renewables in 2019



https://carbontracker.org/powering-down-coal-the-economic-global-coal-phase-out-stronger-than-ever/

CONCLUSIONS

1. Modern **wind power** is already **cheaper** in all countries of the EU, compared with coal power.
2. The center piece of the **EUROPEAN GREEN DEAL** – ***is's already cheaper***!