Economic and Financial Risks of Coal in the EU

State Aid Perspectives on the 'Coal-to-Clean-Transition' in Europe, Organized by Client Earth

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Who We Are

Identity

Carbon Tracker is an independent nonprofit financial think tank funded by EU and US foundations interested in the impact of climate.

Vision

To enable a climate secure global energy market by aligning the capital markets with climate science.

Mission

Mapping the transition for the fossil fuel industry to stay within a two-degree budget.

Strategy

Empower **investors** to identify and switch off capital to the highest cost, highest carbon projects.

Engage with **companies** to re-assess both the viability of such projects and of their business model.

Educate mainstream **financial markets** and **policy-makers** over the risk of a disorderly transition.

Work with **financial regulators** to bring transparency on carbon and stranded asset risk and the fossil fuel risk premium.

Financial Viability and Risks of Coal in the EU

Coal is under severe and sustained economic pressure across EU28:

- Falling renewable costs, air pollution regulations, rising carbon prices

Based on Carbon Tracker modelling, 83% of EU coal generators are currently running at a loss and could lose €7.1bn in 2019

- The most exposed are in Germany and Czech Republic

Regulatory Inevitability

- 54% of coal is cashflow negative today increasing to 97% by 2030
- Units will be reliant on lobbying to secure capacity market payments.
- The European Commission wants to prohibit such payments by 2026
- The cost of coal will be higher than the LCOE of:
    - Onshore wind by 2024
    - Solar PV by 2027
- Battery storage/demand response provide auxiliary services and peak shaving

Power Prices in the EU

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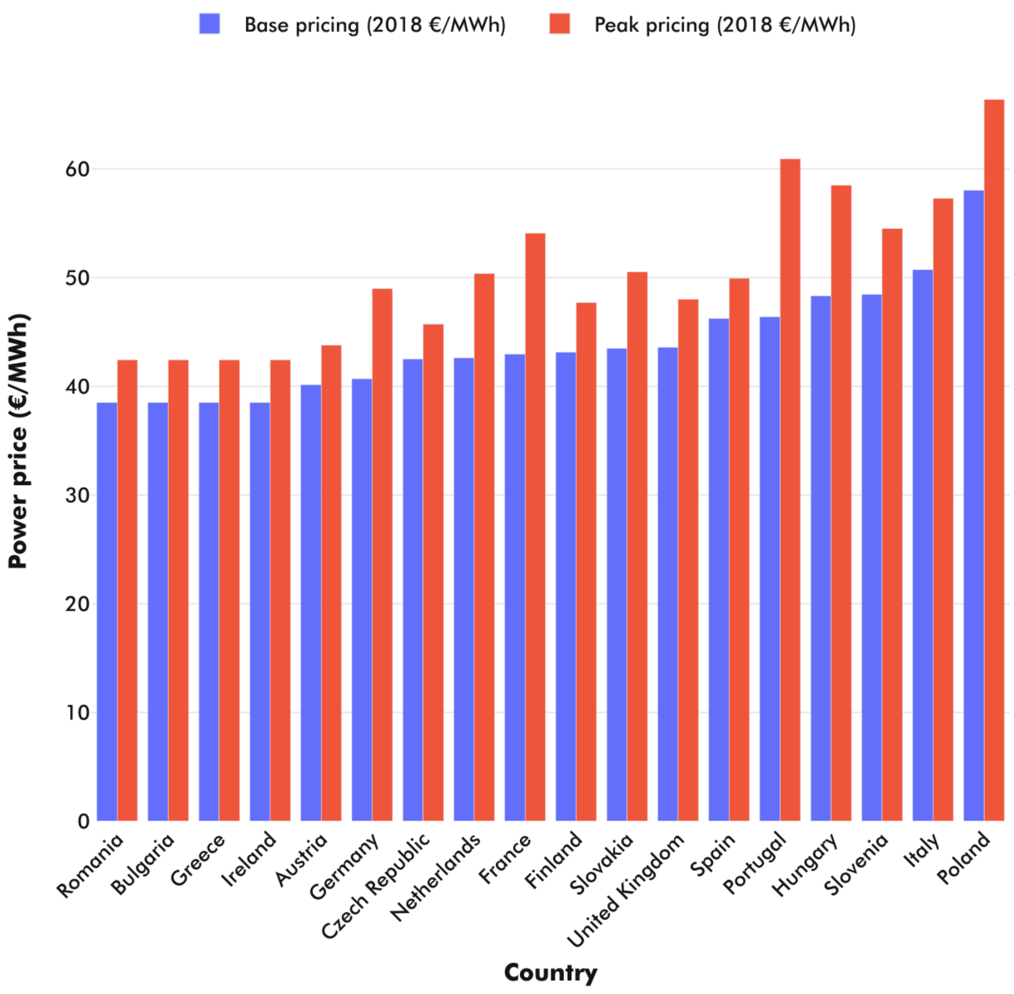
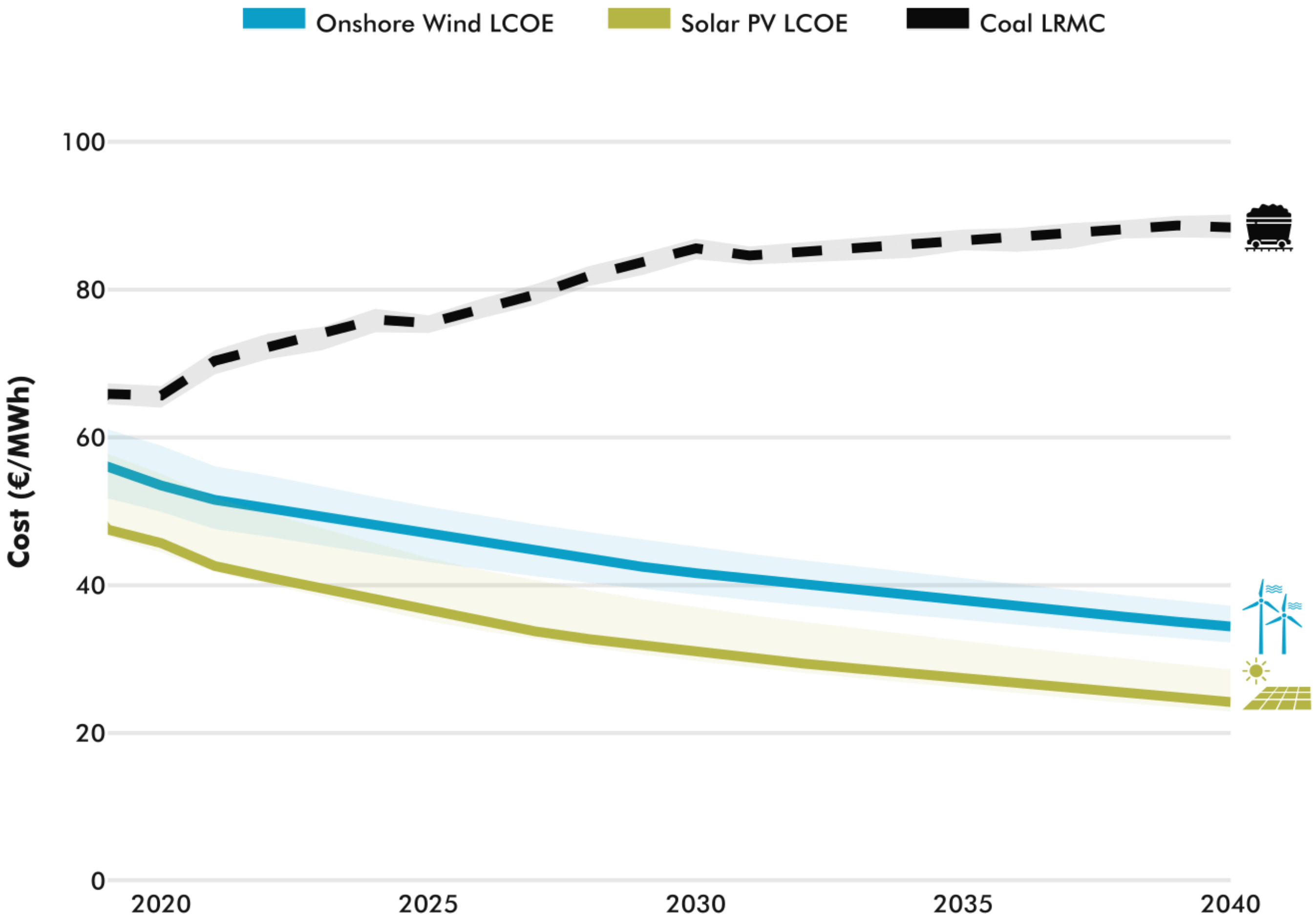


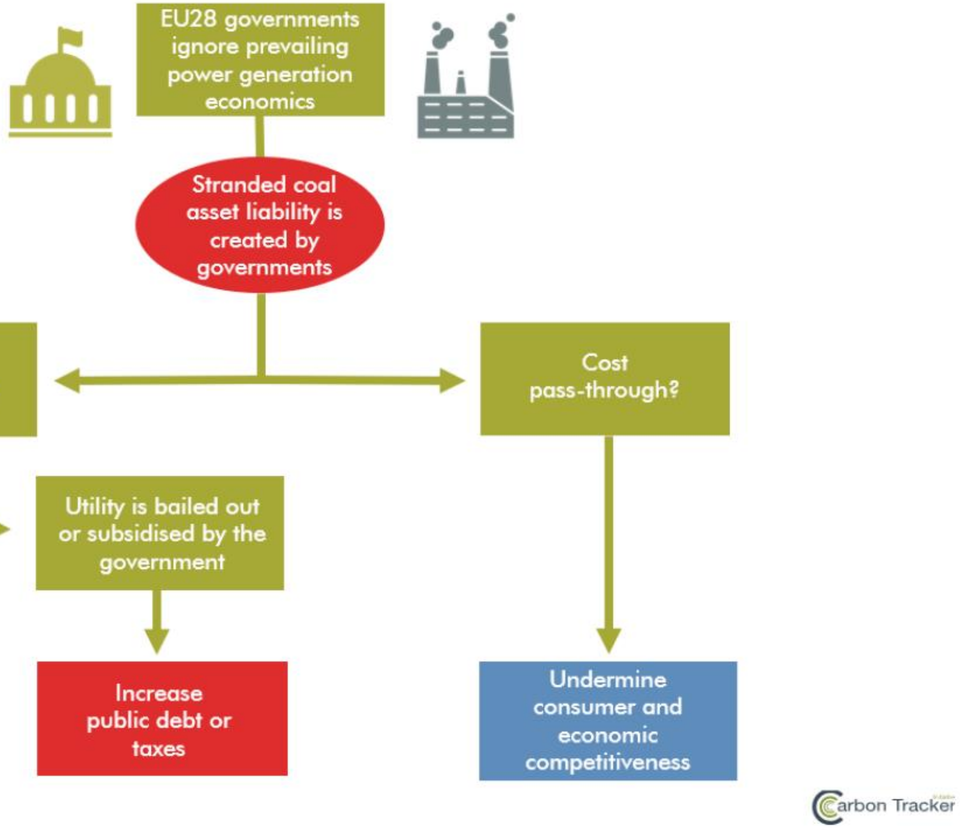
Source: Bloomberg (2019)

Renewable Costs Beat Coal



Source: Carbon Tracker Initiative

How Will Stranded Asset Risk Materialise?



Source: *Carbon Tracker analysis*

Objective of Company Profiles

Profiles aim to identify and track:

1. Paris alignment
   i. A coal unit retirement schedule consistent with a credible climate scenario
   ii. A date assigned to each coal unit
2. Energy transition risk
   i. Project economics (percentage of coal units that are loss making)
   ii. Relative economics (percentage of coal units that have a higher long-run cost than the levelised cost of either onshore wind or solar PV)

- Coal generation: 95% operating capacity and 90% capacity under construction

- Updated annually and based on asset-level data & analytics

- Available for free: https://companyprofiles.carbontracker.org/

Methodology

Long-run marginal cost of each coal unit

Gross profitability of each coal unit

The year when the coal unit will need to be phased out under the Paris agreement (B2DS scenario)

The **stranded asset risk** associated with each coal unit

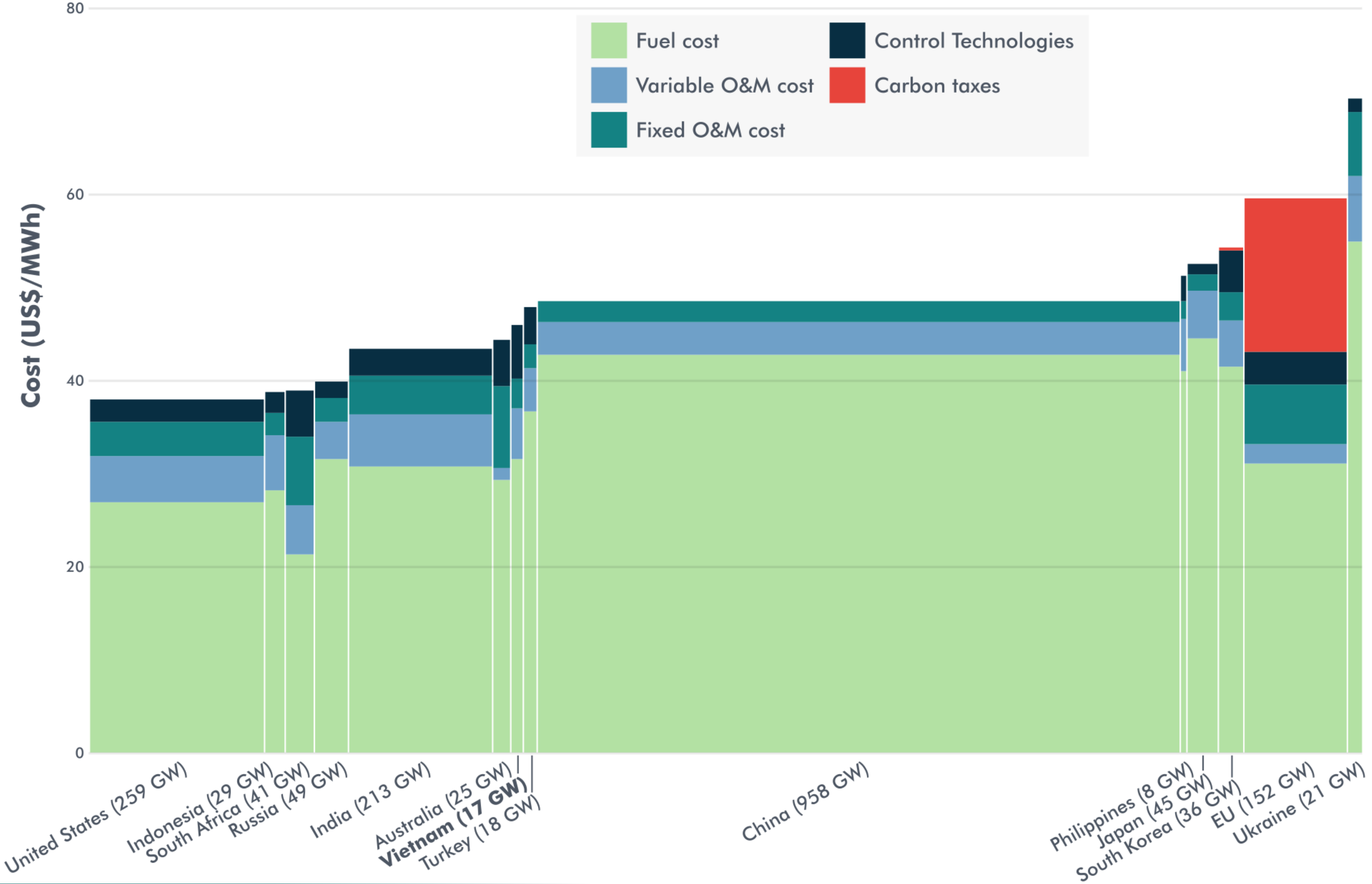
Relative competitiveness: The year when new wind and new solar will be cheaper than new coal units on average

The year when new renewables will be cheaper than operating coal on average

Breakdown of costs and risks by province and by company

Coal type requirements over time (bituminous, anthracite, lignite / domestic vs imported)

Long-run marginal cost breakdown by country



Conclusion

Over half (54%) of EU28 coal plants are cashflow negative today, increasing to nearly all (97%) coal plants by 2030

By 2024, it will be cheaper to build new renewables than to continue to operate existing coal plants

Since all coal plants are loss-making out to 2030, the EU could avoid €22bn in losses by phasing out coal consistent with the Paris Agreement

Thanks for listening

For more information please visit:
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If you are interested in knowing more,
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