EU ETS Phase IV – can the EUA price do it all?

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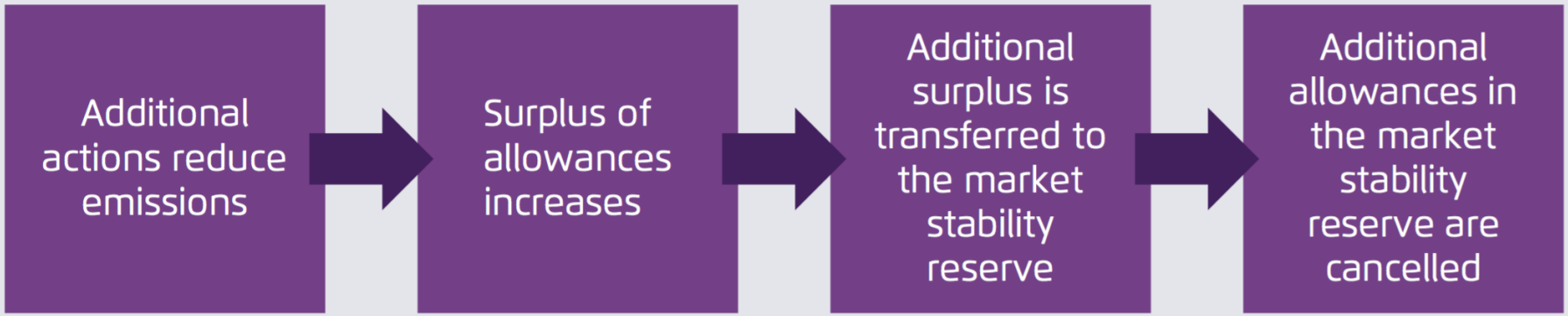
EU ETS Phase IV – Revision outcome

New terrain for carbon markets theory – dynamic cap

Cap change in response to surplus increase, as surplus increases, more allowances are cancelled



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EUA Price response

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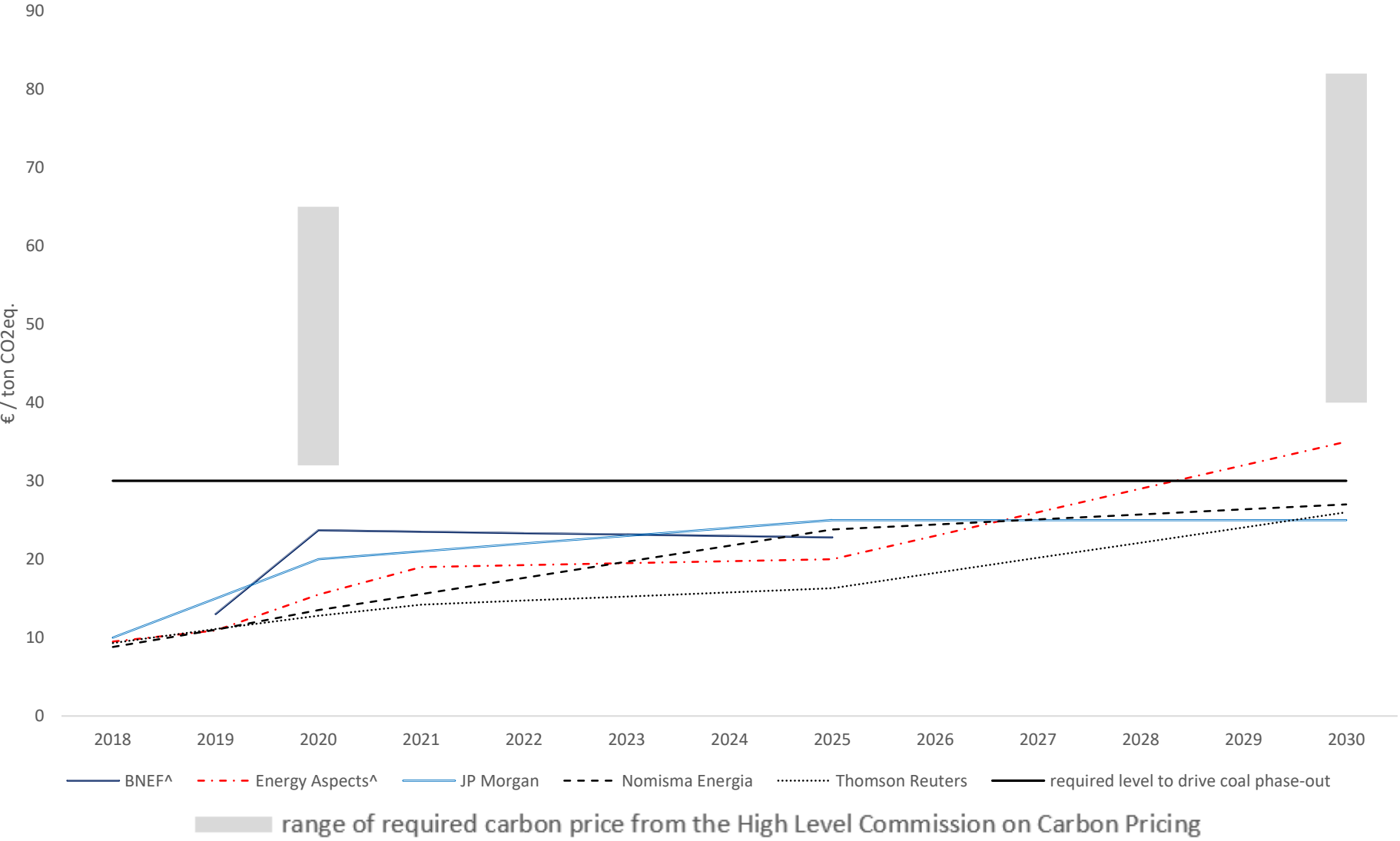
Price projections for phase 4 of EU ETS



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Sandbag Surplus Outlook up to 2030

Base Case scenario

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Market surplus	1517	1568	1223	916	1004	1108	935	767	705	686	631	537	402	226
MSR volume			668	1617	2507	2734	1154	846	714	714	714	701	677	653
MSR cancellation							-1829	-523	-207	0	0	-13	-24	-24

Mid-range Surplus Scenario

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Market surplus	1516	1566	1251	1011	1028	1081	1118	1178	1302	1401	1462	1488	1477	1433
MSR volume			668	1618	2520	2764	941	874	800	865	842	813	782	751
MSR cancellation							-2074	-284	-211	-82	-182	-200	-207	-209

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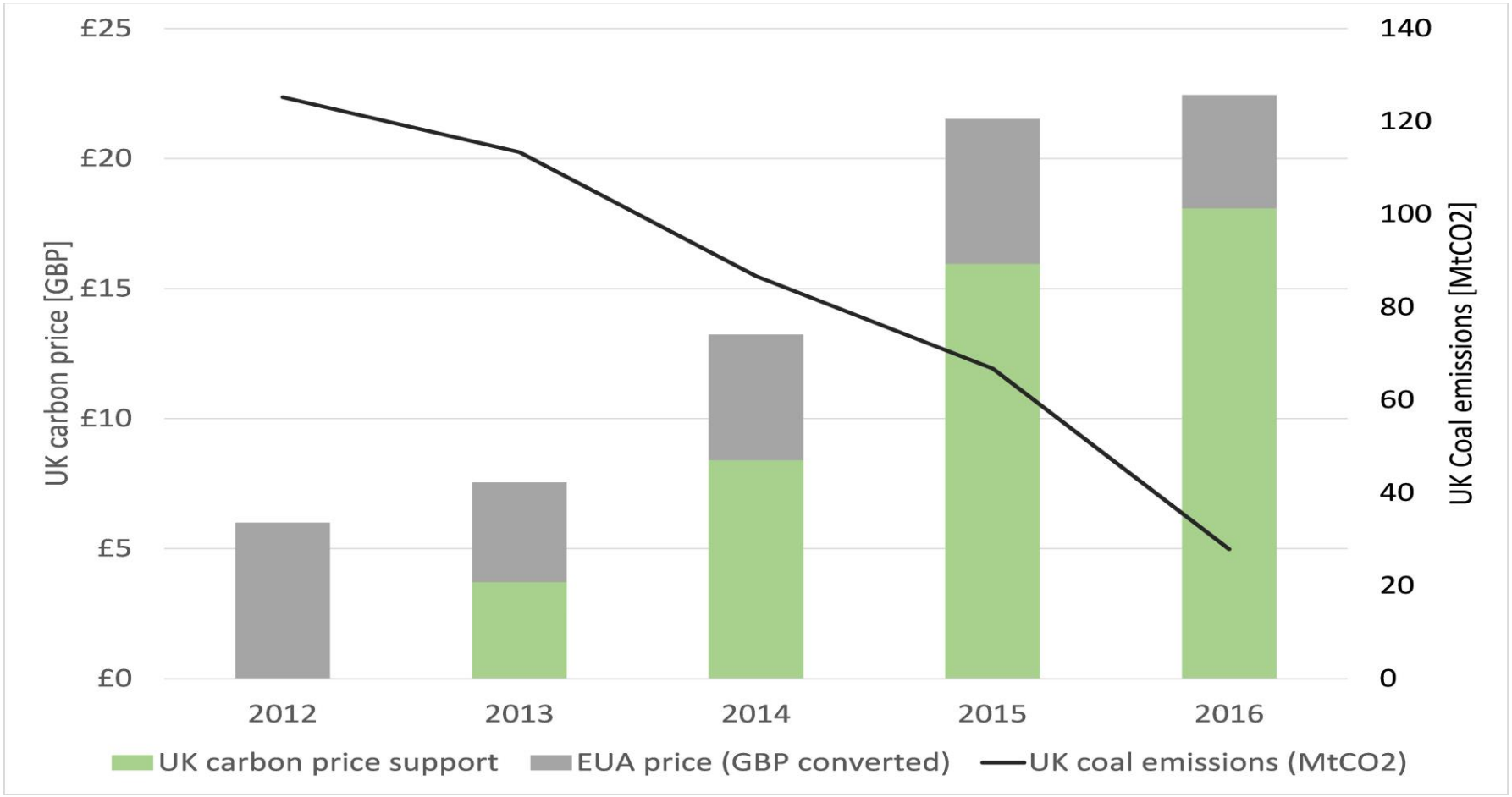
UK carbon floor price: Emission reductions impact



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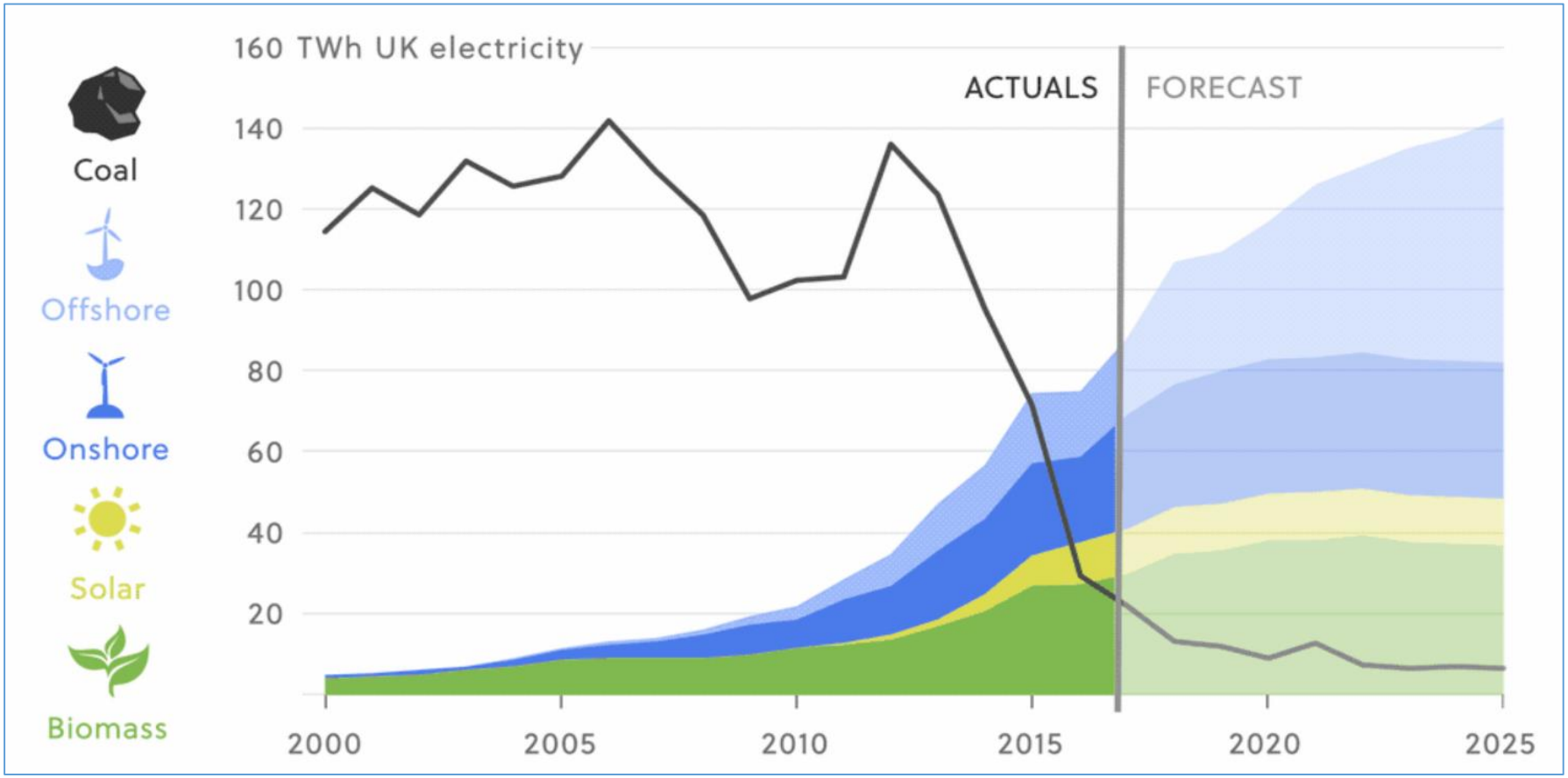
UK energy mix currently



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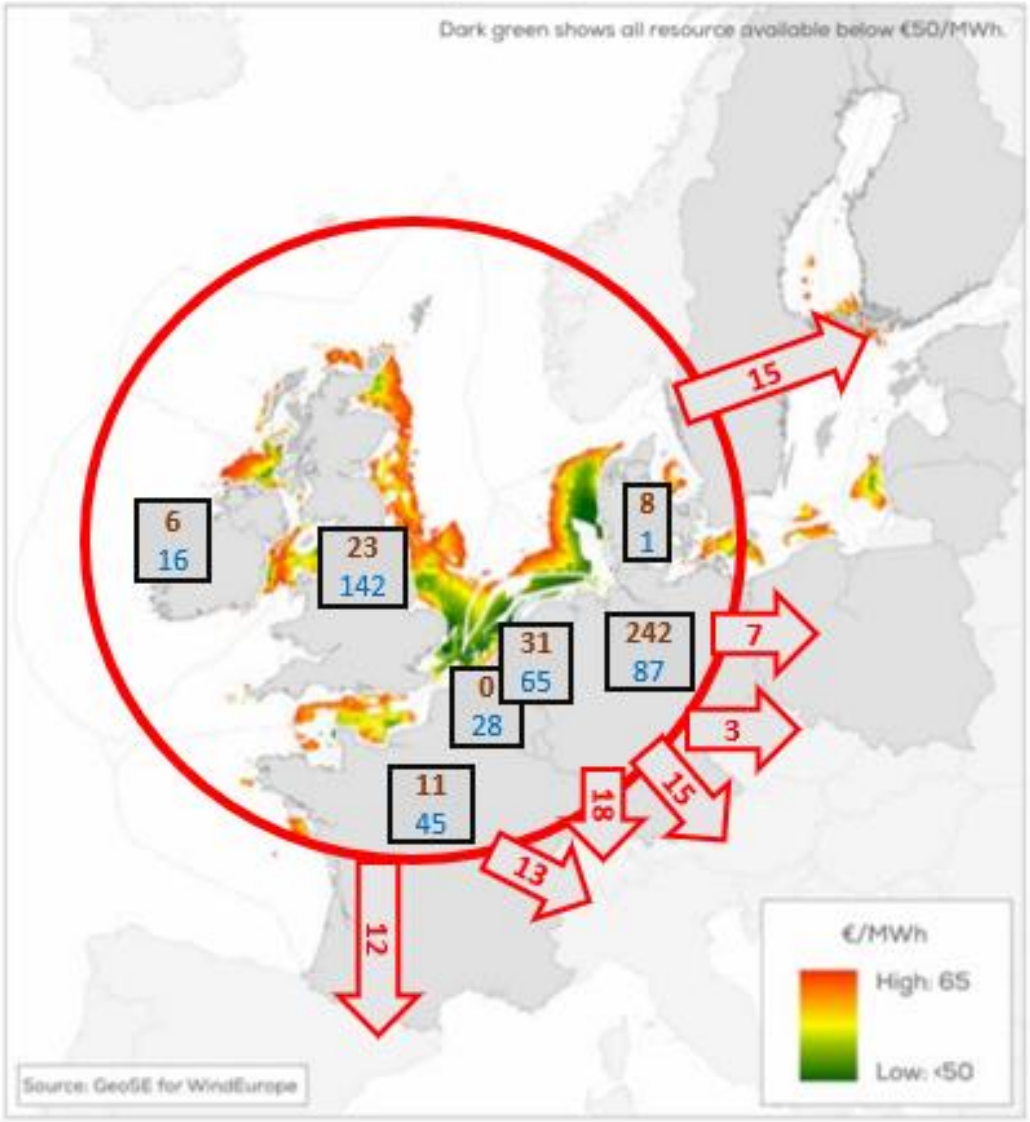
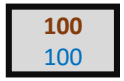


- Huge offshore wind growth is a strong case for regional carbon floor price.
  - Would be made attractive by a minimum carbon price.
  - Likely to also result in massive interconnection growth - need similar country level CO2 pricing.
- Green areas = <50EUR/MWh offshore wind
- Electricity leakage: exports replace with coal?
  - Over half net exports to Italy = 2025 coal phase-out.
  - Small interconnection with PL/CZ means limited carbon leakage.
  - Estonia coal closures would help.
- Regional carbon floor price must include Germany, else carbon leakage to its coal plants.

Interconnector net flow in 2017 (TWh)



Coal generation in 2017 (TWh)
Gas generation in 2017 (TWh)

Source: Agora-Sandbag report

https://windeurope.org/wp-content/uploads/files/about-wind/reports/Unleashing-Europes-offshore-wind-potential.pdf

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2050 – how to get there?

- Cap in 2050 currently shows a little over 300 EUAs to the market – emissions have to drop drastically by then in a very short time! (not in line with the -80% decarbonization target

- Time after 2030 less than time since ETS started

➢ One catalyzing policy mix: carbon floor pricing, alongside the ETS, with revenue recycling

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Thank you!

For questions and extra information:

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Bringing the EU ETS in line with the 1.5°C goal

LRF	In line with 80% - 95% reductions?	Decarbonisation of EU ETS sectors by
2.2%	No	2058
2.4%	Yes but only for 80% reductions	2055
2.6%	Yes	2052
2.8%	Yes	2050
4.2%	Yes	2040
5%	Yes	2037
6%	Yes	2034

The LRF needs to be raised to at least 4.2% in order to decarbonize the power and industry sector by 2040 the latest*

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Presentation by Bert Metz (ECF Fellow and Former Co-chair of the IPCC Working Group Mitigation), European Parliament, May 2016

What could an ideal carbon floor price look like?

- Sufficient price level to reduce high carbon generation
  - Support coal phase-out - EU's 256 coal plants responsible for: 38% of EUETS emissions (2017), 19,000 premature deaths (2015)
  - Small increase in carbon price = much more likely increases coal closure
  - Enables electrification of other sectors (e.g. transport)
  - EUR 30/T in UK has proven to be an appropriate level
- Supports unsubsidised renewables roll-out

  → unlock potential offshore wind
- Limited electricity leakage

  → Move as a region

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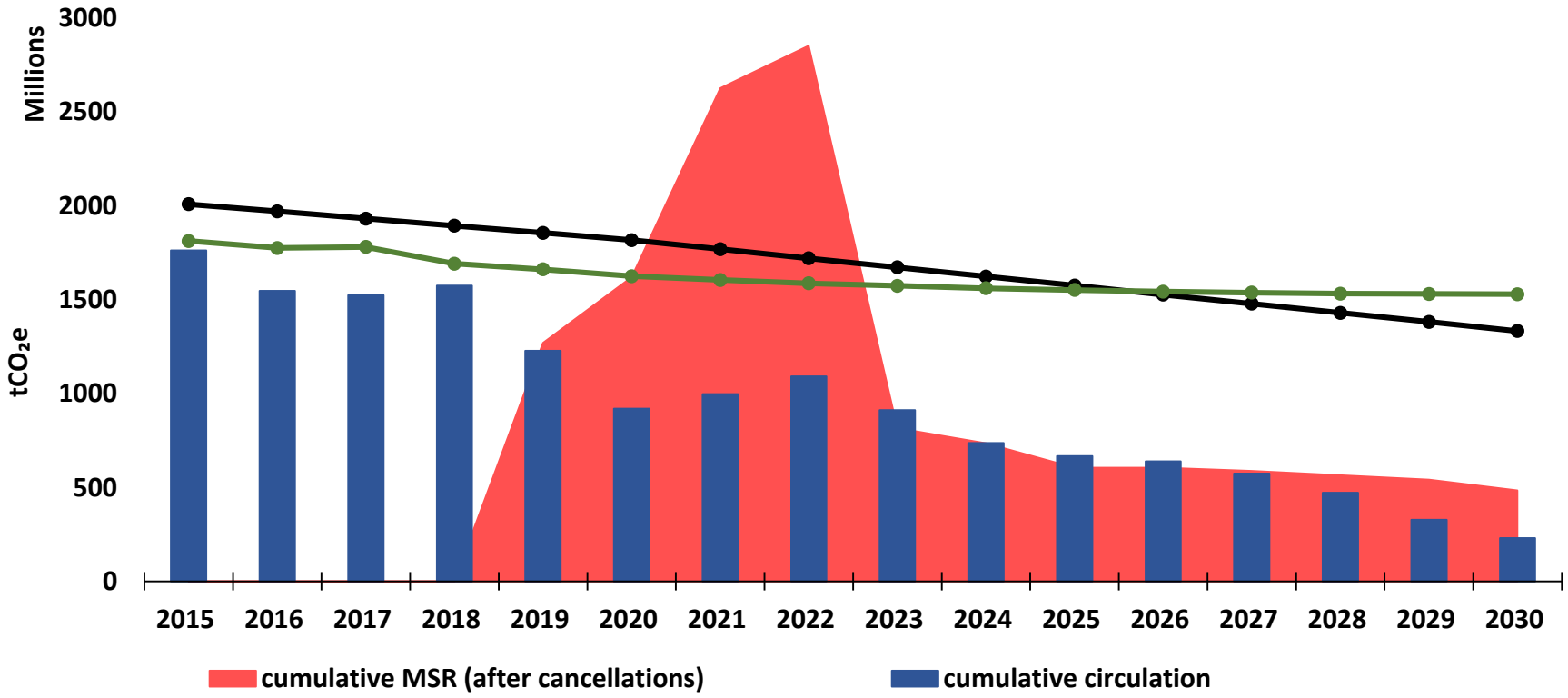
2030 and beyond



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What could an ideal carbon floor price look like? (cont.)

- Not too costly for consumers
  - Temporary possible problem: cost impact decreases as electricity system decarbonises
  - Recycling revenues

General fiscal and social goals	Climate change related purposes
Support for vulnerable groups	Adaptation
Reduction of other taxes	Distribution to those affected by climate change
Government retention of revenues	Support for further emissions reduction, including for innovation and energy efficiency (Note: energy efficiency can also help vulnerable consumers, and indeed energy efficiency measures may be targeted at those groups).
Returned to citizens	

- Extendable to other geographies / sectors

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