### UK Emissions Trading Scheme: Role in Net Zero Policy Vivienne Geard CHI Analysis, Industrial Energy Directorate 3 March



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# From EU ETS to UK ETS



**14 December 2020:** Energy White Paper

Establishing a UK Emissions Trading Scheme (UK ETS) from 1 January 2021 to replace the current EU ETS at the end of the Transition Period. It increases ambition on reducing emissions, and provides continuation of emissions trading for UK businesses and certainty on how they operate.

We will implement the world's first net zero carbon cap and trade market, the UK Emissions Trading Scheme.



## **EU Exit Carbon Pricing Options**

- 1. Establish a UK ETS and negotiate an agreement with the EU ETS to 'link' both schemes (from 2021 onwards)
- 2. Establish a standalone UK ETS (un-'linked' to the EU ETS)
- 3. Establish a carbon tax on UK sectors within scope of the EU ETS (HMT-led)

Complications... what happens in a No Deal, the Single Electricity Market & the Irish border issue, how to deal with aviation in the long-term and what about Net Zero...



## **Carbon Pricing Options: Tax vs Trade**



Resulting carbon price (P) based on cap (c\*), if MACCs are uncertain



Illustrative example

## **UK ETS – A Market Based Measure**

Emissions cap trajectory provides clear signal of need to plan and invest to decarbonise



\*Business as Usual emissions are emissions that are expected in absence of the emissions cap

## **UK ETS – Design Considerations 1**



### Imbalances between supply and demand of allowances can be caused by:

**Cap level:** the cap is set too loose, or too tight (relative to business-asusual emissions) **Changes in demand:** economic shocks (e.g. financial crisis, fuel price spikes), technological improvements, or other climate and energy policies

**Firm behaviour:** e.g. price speculation, or hedging.



## **UK ETS – Design Considerations 2**

Imperfections may reduce liquidity and inhibit price discovery in any market

#### Limited market size - in terms of emissions covered and/or number of participants

Smaller markets offer reduced opportunities to trade and therefore may inhibit price discovery.

Market power – one firm (or a group of firms) has substantial influence over the market price	Limited market participation – not enough account holders participate in trading
Can lead to <u>artificially high or low carbon prices</u> , which may have adverse <u>distributional impacts</u> and/or reduce abatement incentives.	It can <u>hinder price discovery</u> and potentially <u>reduce abatement efforts</u> . Drivers include: transaction costs, information asymmetries, reduced incentives to trade due to low firm heterogeneity, or in particular because of rules around free allocation.

**Limited foresight** – limited ability of market participants to anticipate abatement requirements and costs

Participants typically have a time-limited decision horizon and imperfect knowledge of long term developments. Combined with potential initial inertia, this could lead to a <u>suboptimal carbon price development</u>, <u>delaying action</u>.

# **UK ETS Key Design Features**



**Scope:** a third of UK emissions are covered by the UK ETS. Sectors covered include energy (power generators), energy-intensive industries (steel, chemicals etc.) and aviation (UK domestic and UK to EEA countries).



**Cap:** initially set at 5% below the UK's expected notional share of the overall EU ETS cap for Phase IV of the EU ETS.



**Auctioning:** primary means of introducing allowances into the market. Participants will be able to trade UK ETS allowances on a secondary market. Auctions will begin in Q2 2021.



**Free allocation:** awarded to industry to protect against carbon leakage. This will be based on benchmarks.



Auction Reserve Price: any bids below £22 will not be accepted. This will provide certainty around the minimum price for allowances.



**Cost Containment Mechanism:** in years one and two CCM will have lower price and time triggers, providing a mechanism by which the government can decide whether to intervene against high prices sooner.



## **UK ETS Role in Net Zero - Ambition**

CCC CB6 Advice: 53% reduction in traded sector emissions between 2019 and 2030 (to approx 61MtCO<sub>2</sub>e)

Implies:

**Power: 65% decrease** in emissions (to 9MtCO<sub>2</sub>e) **Industry** (Ells, refineries & offshore oil & gas): **45% reduction** (to 34MtCO<sub>2</sub>e) Aviation: expect emissions to increase slightly.



Source: The Sixth Carbon Budget – The UK's path to Net Zero, CCC

## **UK ETS Role in Net Zero – Expansion & Evolution**



14 December 2020: Energy White Paper

"The UK ETS will also allow us to expand carbon pricing across the economy and encourage innovation in emerging decarbonisation technologies. We have committed to exploring expanding the UK ETS to the two thirds of uncovered emissions, and will set out our aspirations to continue to lead the world on carbon pricing in the run up to COP26. This will also include how the UK ETS could incentivise the deployment of greenhouse gas removal technologies."







### International Linking & co-operation