

## Technical Workshop on the EU Emissions Trading System

## Discussion points parallel sessions



# Topics for parallel discussion groups

## Aim

- To discuss lessons learned on some main strategic elements of ETS design presented this morning in the context of the Turkish system

## Four discussion topics to cover in each group:

1. Ensuring market stability and environmental integrity
2. How ETS can positively stimulate energy efficiency in industry
3. International competition, carbon leakage and free allocation
4. ETS in the wider energy and climate policy framework

**Followed by plenary panel discussion and recap on lessons learned**

# 1. Ensuring market stability and environmental integrity

## What is the objective of the design element?

- Limiting market volatility, i.e. price fluctuations?
- Reducing market excess, over-supply?
- Dealing with unforeseen changes in production levels?
- Keeping carbon prices sufficiently high to provide an incentive to change?
- Keeping carbon prices sufficiently low to limit competitive impacts?

## Solution depends on the objective:

- Market stability reserve – different forms in EU ETS -> See separate slide
- Price floors and/or price ceilings – different in stand-alone and linked systems -> See separate slide
- “Aligning allocation with production levels”

## And on whether the system is linked to other systems

## Some measures to decrease the surplus have already been implemented in phase 3

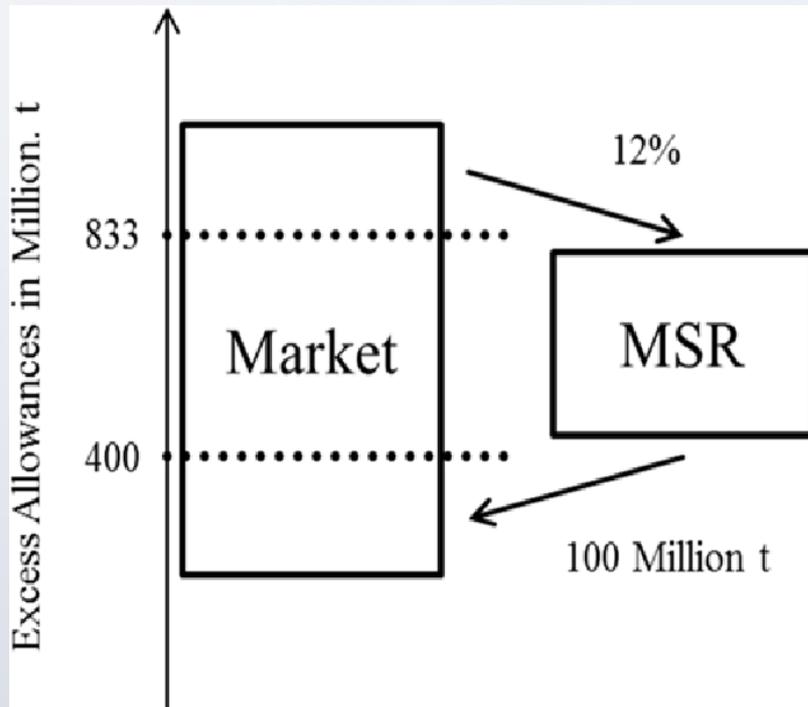
### Large imbalance between the supply and demand of allowances at the start of phase 3

- There was a **surplus of 2.1 billion allowances** in 2013

### Measures taken for the short and the long term

- **Short-term:** Back-loading of auction volumes (2014-2016)
  - **Long-term:** Market Stability Reserve (established in 2015, operational as of 2019)
- ⇒ In 2017, the **surplus fell to 1.65 billion allowances**, its lowest level since the start of phase 3

# Working of the MSR in the EU ETS



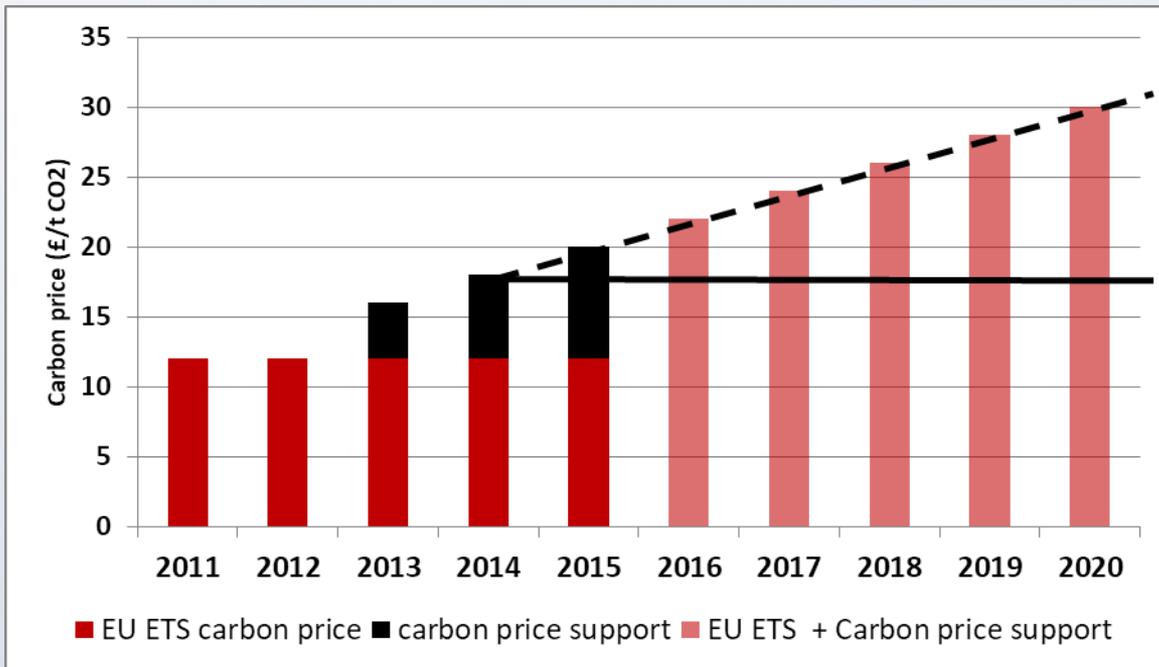
Original design used during Phase 3

Mostly impacting volatility

## After ETS Directive revision

- Uptake rate will double to 24% until 2023
- If number of allowances in MSR gets too high, part is cancelled, i.e. can not be released again
- MSR content determines how many allowances will be auctioned next year
- **Also affecting market excess!**

# Price floor in a linked system



- Carbon price set at EU market, so no ‘real’ price floor possible
- The ‘experienced’ carbon price comprises the EU market price, topped up to the desired price floor level by a carbon tax
- Carbon price support rate by fuel type (£/kWh)

## Carbon price floor in the UK for the electricity sector

Source: House of Commons Library Briefing Paper Number 05927, 2018



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## 2. How ETS can positively stimulate energy efficiency in industry

### Mechanisms involved:

- The carbon price, making more energy efficiency measures viable
- Using (best practice) benchmarking for allocation
  - Makes remaining improvement potentials more visible
  - Rewards early action
- The availability of auctioning revenues that can be used to stimulate energy-efficient technology development and deployment
  - E.g. as done in the Innovation Fund in the EU ETS
  - Or by financing other (industrial) energy efficiency policies -> see topic 4
- The awareness effect, making the benefits of energy efficiency improvement more visible

# Benchmarking (BM) industrial performance

## Industry allocation in EU ETS:

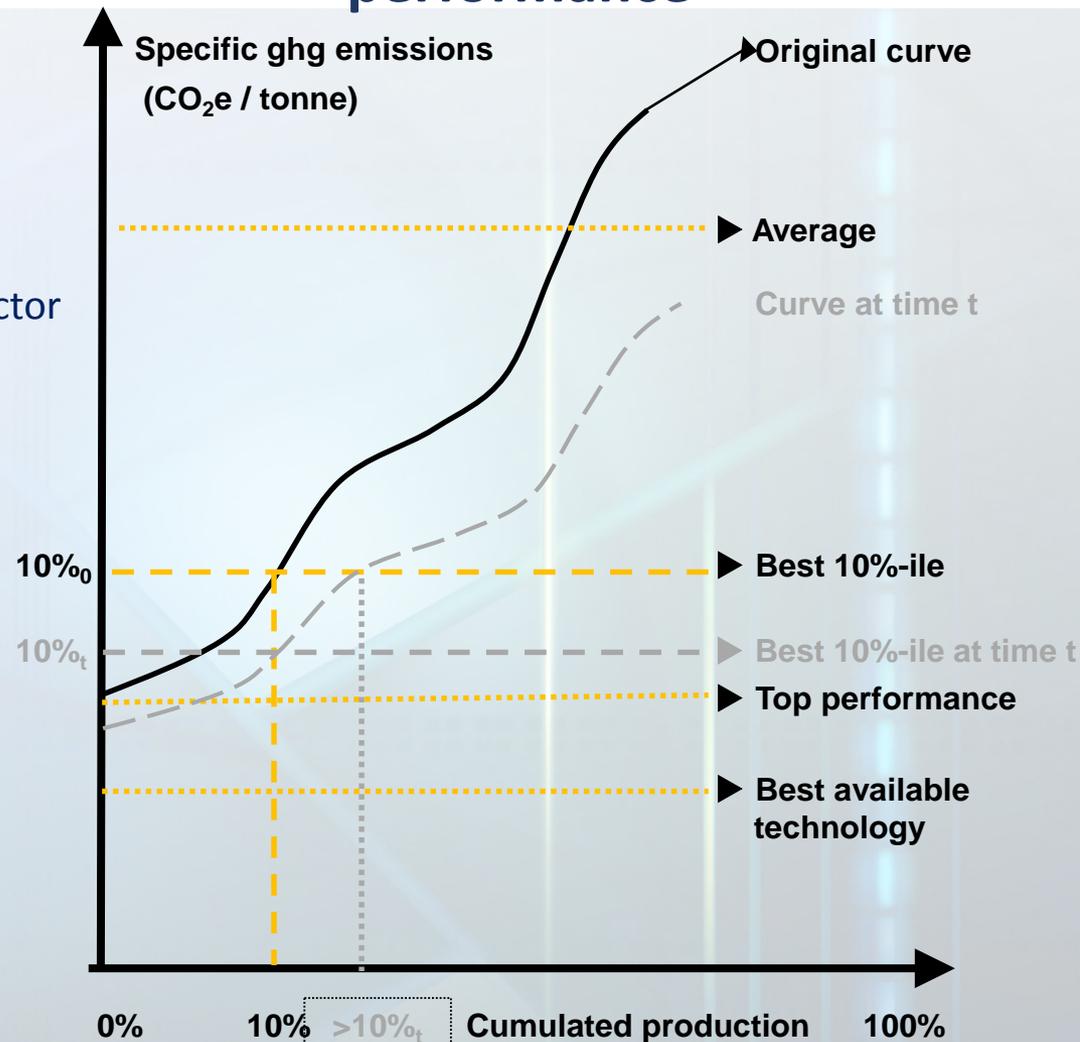
Allocation =

$BM * \text{Historical Activity Level} * CLEF * \text{red factor}$

CLEF = Carbon Leakage Exposure Factor

## Benchmark approach:

- Current set of 52 (+2) BMs
- BM based on top-10% of BM curve
- Based on '07-'08 performance
- To be updated for Phase 4
- Simple annual improvement rate



### 3. International competition, carbon leakage and free allocation

**Free allocation is often used to limit impacts on competitiveness of ETS participants and avoid carbon leakage**

#### Benefits:

- Lower costs for participants, higher acceptance industry
- Potentially less price increase for customers, depending on how opportunity costs are treated
- Lower risk of potential loss of market share participants
- Lower risk of potential job losses
- Lower risk of increased emissions outside the ETS boundaries

#### Drawbacks:

- Reduced carbon price incentive
- Potential for windfall profits if opportunity costs are passed on to customers
- Reduced auctioning revenues
- Limited application of ‘pollution pays principle’
- May reduce public support for ETS system

### 3. International competition, carbon leakage and free allocation – cont'd

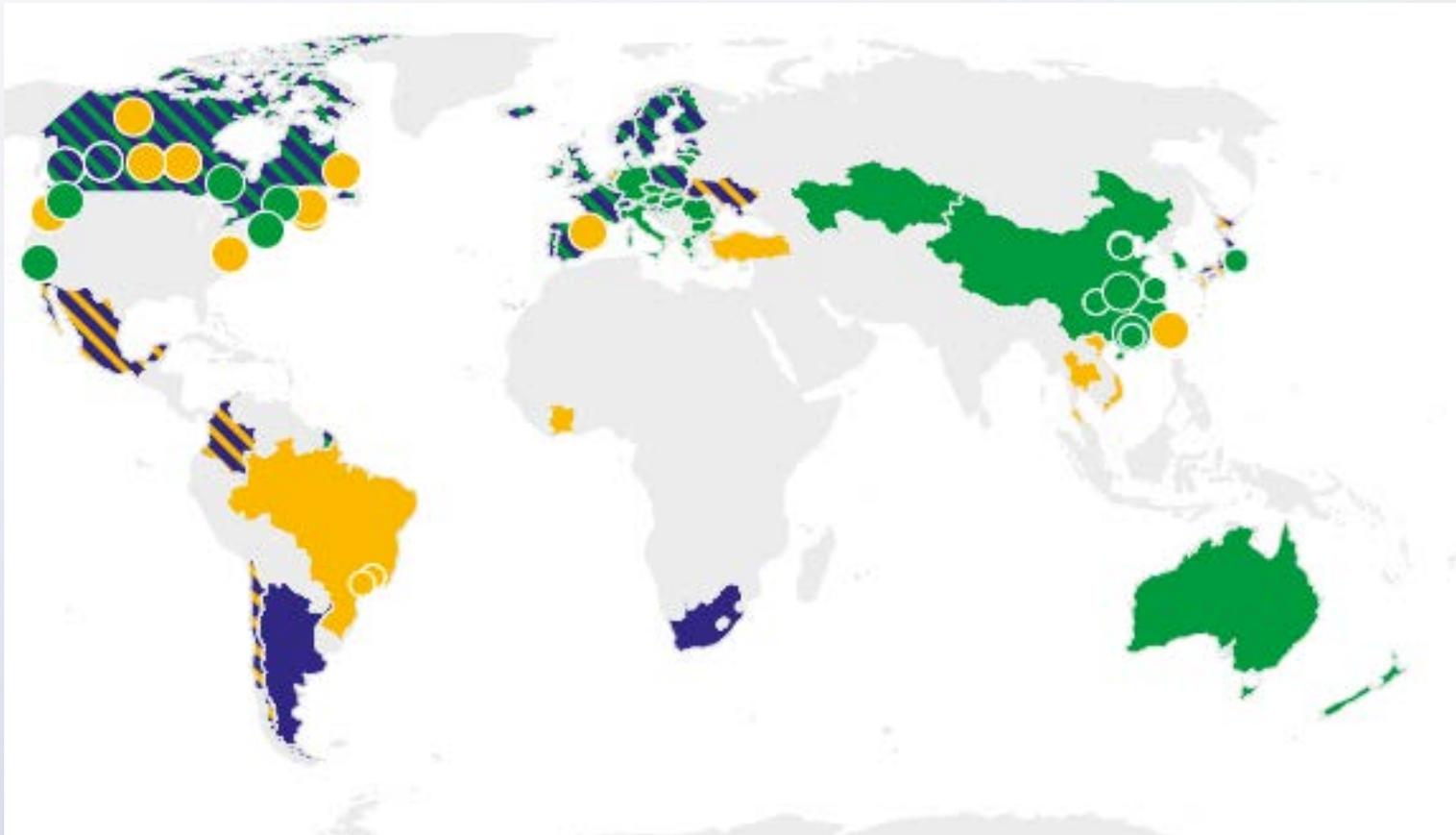
#### Other options to limit competitiveness effects and carbon leakage

- Expanding carbon constraints and carbon prices around the world and increased cooperation among different jurisdictions
- Reduce free allocation, using auctioning revenues to address negative impacts on companies and other stakeholders
- Apply carbon price corrections to imports/exports
  - Border tax adjustments
  - Consumption-based emissions trading
- Use other policies to offset potential impact-> see other topic

#### And: Use free allowances only as a transitional measure

- What on the longer term? Provide clarity!

# Carbon pricing world-wide



Source: WorldBank  
Carbon Pricing  
Dashboard

● ETS implemented or scheduled for implementation  
● ETS and carbon tax implemented or scheduled

● Carbon tax implemented or scheduled for implementation  
● ETS implemented or scheduled, tax under consideration

● ETS or carbon tax under consideration  
● Carbon tax implemented or scheduled, ETS under consideration



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## 4. ETS in the wider energy and climate policy framework

### Relation ETS and other policies:

- Other policies can impact the emissions in the ETS, affecting the supply/demand balance of allowances -> See next slide
  - For example industrial EE policies, RE policies, phase out of coal-fired power plants
- Other policies can undermine or strengthen the carbon price incentive if they prevent the carbon price being passed through
  - Energy subsidies, energy price caps, compensation for higher electricity prices
- Other policies can help reduce negative impacts and distributional effects of ETS -> topic 3
- Other policies may be more suitable for certain sectors or for stimulating certain type of mitigation measures -> See separate slide

# The 'waterbed effect'?

## What is the waterbed effect?

- National policies that reduce emissions in ETS sectors create more room for emissions under the cap, i.e. the emissions may not be reduced (or less so) because other emitters can increase their emissions

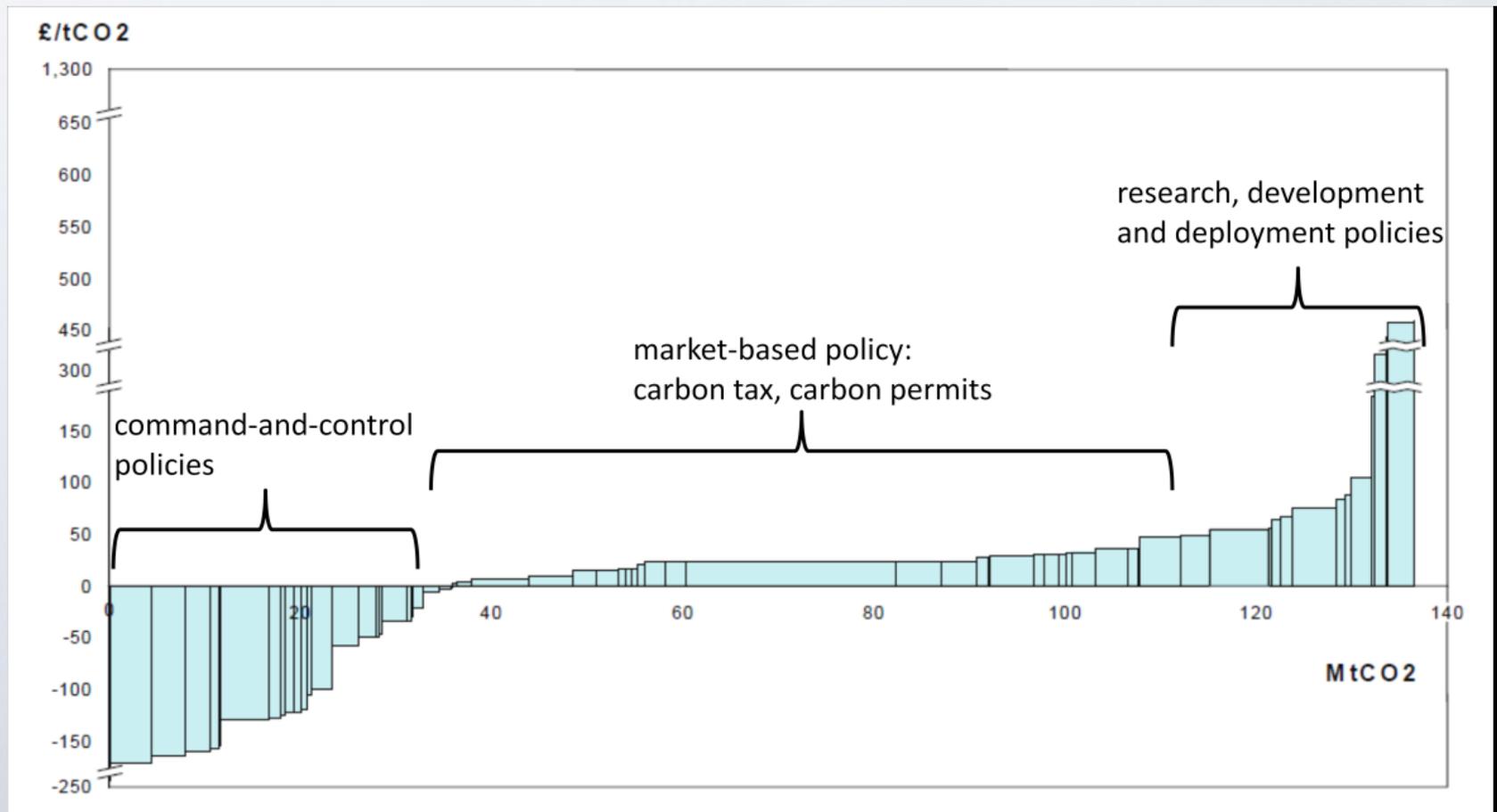
## Is it a problem?

- Other EU targets (RE, EE) have been taken into account in setting the cap
- As long as national policies are needed to reach those targets, they could be seen as reflected in the cap

## Provision in the EU ETS , Art.12.4

- In case of closure of electricity generation capacity due to additional national measures, MS may cancel allowances to be auctioned (equivalent to the average emissions of the installation concerned in the 5yrs before closure)

# A mix of policies to cover all potential mitigation measures





Regional Implementation  
of Paris Agreement Project

The RIPAP project is implemented by a consortium consisting of:  
Human Dynamics (lead), the Regional Environment Center, Aether,  
Klimapolitika and SQ Consult



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