

- state of play, review and perspective

Regulatory School of the Energy Community Secretariat in cooperation with EFET - Introduction into CO2 market - 15th December 2020

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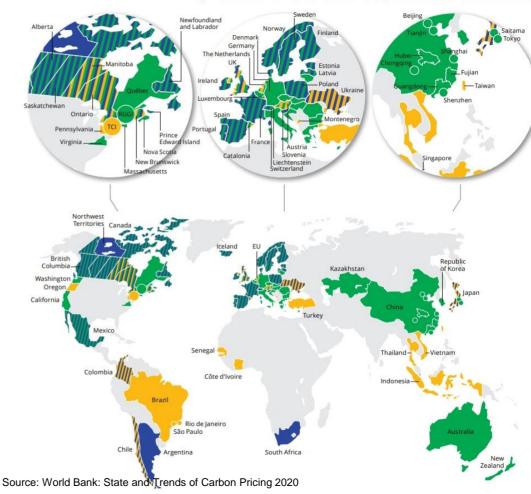


- ETS implemented or scheduled for implementation
- Carbon tax implemented or scheduled for implementation
- ETS or carbon tax under consideration.

- ETS and carbon tax implemented or scheduled
- Carbon tax implemented or scheduled. ETS under consideration
- ETS implemented or scheduled, ETS or carbon tax under consideration
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GLOBAL STATE OF EMISSION TRADING

- 46 national and 32 sub-national jurisdictions implemented scheduled have implement carbon pricing;
- Overall 61 initiatives: 31 ETS & 30 carbon tax;
- Largest are EU, South Korea, California, Quebec, China;
- These translate to about 12 gigatons of carbon dioxide equivalent (GtCO2e) or about 22 percent of global emissions;
- Around US\$45 billion globally in 2019.





EUROPEAN UNION EMISSION TRADING SYSTEM

- Set up in 2005, the EU ETS is the world's first international emissions trading system;
- 31 Countries
 - All 28 EU Member States,
 - Norway, Iceland, Liechtenstein;
- >12.000 large installations
 - Including electricity and heat producers, steel, chemicals, cement, glass, pulp, paper, airlines operating between ETS countries, etc.
- ~2.000 Mt CO2eq per year
 - 45% of the total EU annual emissions,
 - Carbon dioxide (CO2), Nitrous oxide (N2O), Perfluorocarbons (PFCs).

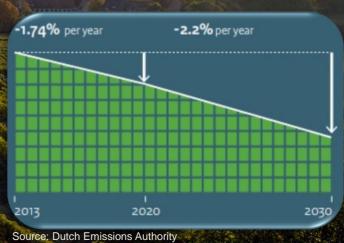




HOW THE EU ETS WORKS

- The EU ETS works on the 'cap and trade' principle;
 - Within this cap, companies receive or buy emission allowances which they can trade;
- Emission allowances are the 'currency' of the EU ETS;
 - Each allowance gives the holder the right to emit one tonne of CO2ea:
 - Allowances can be used only once and surrendered every year;
- Cap decreases each year by a linear reduction factor of 1.74% until 2020 and by 2,2% between 2021-2030;
 - A separate cap applies for the aviation sector;
- Companies may receive free allowances to prevent carbon leakage;
- Target for emissions in 2020 is 21% lower than in 2005, and 43% lower in 2030.







EU ETS DEVELOPMENT PHASES

2005-2007: 1st trading period

EU ETS was established as the world's biggest carbon market; process of 'learning by doing'; number of allowances turned out to be excessive \rightarrow Price fell to zero in 2007.

2013-2020: 3rd trading period

Major reforms were introduced; introduction of cap on emissions and a linear reduction factor of 1,74% annually; Shift from free allocation towards auctioning of allowances begins.

2008-2012: 2nd trading period

Iceland, Norway and Liechtenstein joined: number of allowances was reduced by 6.5%; Economic downturn depresses emissions > surplus of unused allowances: Aviation was brought into the system.

2021-2030: 4th trading period

New 2030 emission-reduction targets introduced: number of allowances decline by 2,2% annually, new funds and support mechanisms.



CHANGES IN PHASE 4 OF THE EU ETS

- EU ETS Phase 4 is starting on 1 January 2021 with new elements:
 - New reduction target up to 2030 will be 43%;
 - The linear reduction factor is increased from 1,74 % to 2,2 % in 2021;
- Market Stability Reserve (MSR) will be substantially reinforced:
 - Between 2019 and 2023, the amount of allowances put in the reserve will double to 24% of the allowances in circulation;
 - The regular feeding rate of 12% will be restored as of 2024.
- Better targeted carbon leakage rules:
 - Free allocation will be prolonged but eventually phased out;
 - Revised list of sectors at the highest risk of relocating.
- Low-carbon funding mechanisms will be set up:
 - Innovation Fund: demonstration of innovative technologies;
 - Modernisation Fund: investments in modernising the power sector.





STATE OF PLAY AND OP SSUES OF THE EU ETS

- Emissions from installations covered by EU ETS declined by about 35% between 2005-2019, 9.1% only in 2019 from 2018 levels;
 - However under the current cap, EU ETS would only reach net zero in 2058;
- 43% of all allowances will be allocated for free until 2030:
 - 6,3 billion allowances will be handed out for free valued at about €165 billion:
 - Between 2012-2018 with free allocation only 4,7% annual average drop VS. 22% with not free allocation
 - Because of free allocation companies sold surplus €25 billion over 2008-2015:
- EU ETS revenues rose from 90 million in 2012 (worth €620 million) to over 920 million in 2018 (raising €14 billion):
 - **EU MS** only used 67% to finance climate action;
- New EU climate targets mean the update of EU ETS targets and sectors.





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