Northern Ireland Assembly

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EU ETS- Phase IV

1 Introduction

The following paper is a follow up to the paper ***Common framework background paper: Emissions Trading*** (17 September 2020) and the accompanying presentation. It provides more detail on Phase IV of the EU ETS and on a number of other areas also discussed at the presentation.

2 Background

The EU Emissions Trading System (EU ETS) is the cornerstone of the EU's policy to mitigate climate change and the fundamental tool for reducing its greenhouse gas emissions across power, industrial and aviation sectors . It is the world's first and largest emissions trading system, covering around 45% of the EU's greenhouse gas emissions.[1] According to a SPICE briefing, others exist in New Zealand, South Korea, California, Quebec, with developments ongoing in China.[2]

It was introduced in 2005 as a mandatory 'cap and trade scheme' regulating greenhouse gas emissions from over 11,000 installations across 31 countries (across

[1] European Commission [online] EU Emissions Trading System (EU ETS). https://ec.europa.eu/clima/policies/ets_en

[2] SPICe (April 2019) EU Emission Trading System. Available at https://digitalpublications.parliament.scot/ResearchBriefings/Report/2019/4/5/EU-Emissions-Trading-System#Executive-Summary

Europe and including Liechtenstein, Iceland and Norway). There are around 1,000 installations in the UK[3], with currently 21 in NI.

The EU ETS has been delivered in a number of phases since it began[4]:

1. Phase I (1 January 2005 to 31 December 2007)

This phase is complete. Further details around this phase can be viewed on the National Archives version of the DECC: EU ETS Phase I.

2. Phase II (1 January 2008 to 31 December 2012)

Phase II broadened the scope of the ETS to include CO2 emissions from glass, offshore oil and gas petrochemicals etc. Further details around this phase can be viewed on the National Archives version of the DECC: EU ETS Phase 2 .

3. Phase III (1 January 2013 to 31 December 2020)

This built on the other phases by introducing:

- an EU-wide cap on the number of available allowances - to be reduced by 1.74%/yr up to 2020;
- the UK's scheme to lower compliance costs for small emitters and hospitals;
- the phase out of free allocation (see box) to be replaced by auctioning (see box);
- free allocation to industrial installations (other than power generation) deemed at risk of 'carbon leakage', (see box) defined as 'an increase of emissions outside the EU because of EU climate policies.

4. Phase IV (1 January 2021 to 31 December 2030)

In July 2015, the European Commission presented a legislative proposal to revise the EU ETS for the period 2021 -2030 (known as Phase IV). The revised EU ETS Directive (Directive (EU) 2018/410) entered into force on 8 April 2018.

Further detail on the operation of the ETS can be found in the previous research paper **Common framework background paper: Emissions Trading**.

[3] UK Government. (December 2018,). Participating in the EU Emissions Trading System (EU ETS). https://www.gov.uk/guidance/participating-in-the-eu-ets

[4] For more information, see UK guidance: Participating in the EU Emissions Trading System and SPICe (April 2019) EU Emission Trading System. Available at https://digitalpublications.parliament.scot/ResearchBriefings/Report/2019/4/5/EU-Emissions-Trading-System#Executive-Summary

3 Phase IV

To achieve the EU's overall greenhouse gas emissions reduction target for 2030, the sectors covered by the EU ETS (power, industrial, aviation) must reduce their emissions by 43% compared to 2005 levels[5].

The revised EU ETS Directive, which will apply for the period 2021-2030, will enable this through a mix of measures described below.

3.1 Fewer allowances

Phase IV aims to reduce further the number of overall emissions allowances and continue the phase out of free allocation of allowances by 2027. This is detailed below:

3.3.1 Increased reduction of the allowance cap

To increase the pace of emissions cuts, the overall number of emission allowances will decline at an annual rate of 2.2% from 2021 onwards, compared to 1.74% currently.

What is the cap?

The overall volume of greenhouse gases that can be emitted by power plants, factories and other fixed installations covered by the EU ETS is limited by a 'cap' on the number of emission allowances (the cap for the aviation sector has been separately calculated). Within the overall EU-wide cap, companies receive or buy emission allowances, which they can trade as needed.

Each allowance gives the holder the right to emit:

- one tonne of carbon dioxide (CO_2), the most common greenhouse gas, or
- the equivalent amount of two more powerful greenhouse gases, nitrous oxide (N_2O) and perfluorocarbons (PFCs).

In phase IV (2021-2030), the cap on emissions will be subject to an annual linear reduction of 2.2%., compared to 1.74% during Phase III.

For further information see: https://ec.europa.eu/clima/policies/ets/cap_en

[5] EC Phase IV https://ec.europa.eu/clima/policies/ets/revision_en

3.1.2 Free allocation phase out

All sectors covered by the EU ETS (except most of the EU power sector) are provided with a free allocation of allowances. These are calculated based on the installation's output/input. Installations received 80% of their allowances, reduced to 30% in 2020, with the aim of 0% (where all allowances will only be obtained through auctioning) by the end of Phase IV. Additional allowances needed are to be obtained by trading/auctioning.

Industrial sectors at significant risk of competition from countries without similar carbon costs are eligible to receive a higher proportion of allowances for free. This is to try and reduce carbon leakage. This is explained in more detail in section 3.3.

For more information, see UK guidance: Participating in the EU Emissions Trading System and SPICe

3.2 A reinforced Market Stability Reserve

Market Stability Reserve (MSR) - this is the mechanism established by the EU to reduce the surplus of emission allowances in the carbon market and to improve the EU ETS's resilience to future shocks.

A surplus of emission allowances has built up in the EU emissions trading system (ETS) since 2009. This was largely due to the economic crisis (which reduced emissions more than anticipated) and high imports of international credits (see s.3.4 for more detail). This has led to lower carbon prices and therefore a weaker incentive to reduce emissions.[6]

The surplus amounted to around 2 billion allowances at the start of Phase III and increased further to more than 2.1 billion in 2013. In 2015, it was reduced to around 1.78 billion because the Commission postponed the auctioning of 900 million allowances until 2019-2020 (known as back-loading).

3.2.1 MSR – a long term solution

As a long-term solution, a market stability reserve began operating in January 2019 to divert surplus allowances away from auctioning by:

- Transferring the 900 million allowances, that were back-loaded in 2014-2016, to the reserve rather than being auctioned in 2019-2020.
- Transferring unallocated allowances to the reserve. It's suggested the exact amount will only be known in 2020. However, market analysts estimate that around 550 to 700 million allowances could remain unallocated by 2020.

[6] EC [online] Market Stability Reserve https://ec.europa.eu/clima/policies/ets/reform_en

Between 2019 and 2023, the amount of allowances put in the reserve will be increased from 12% to 24% of the allowances in circulation.[7]

3.3 Improved carbon leakage rules

The revised EU ETS Directive provides rules to address the risk of carbon leakage.

Carbon leakage

Carbon leakage may occur if, for reasons of costs related to climate policies, businesses were to transfer production to other countries with laxer emission constraints. This could lead to an increase in their total emissions. The risk of carbon leakage may be higher in certain energy-intensive industries.
See EC Carbon leakage for more detail

The system of free allocation has been revised to focus on sectors at the highest risk of relocating their production outside of the EU. These sectors will receive 100% of their allocation for free. For less exposed sectors, free allocation is to be phased out after 2026 from a maximum of 30% to 0 at the end of phase 4 (2030).

A considerable number of free allowances will be set aside for new and growing installations. This number consists of allowances that were not allocated from the total amount available for free allocation by the end of phase 3 (2020) and allowances from the MSR (Market Stability Reserve).

More flexible rules have been adopted to better align the level of free allocation with actual production levels:

- Allocations to individual installations may be adjusted annually to reflect relevant increases and decreases in production. However, a threshold of 15% for adjustments has been set.
- The list of installations covered by the Directive and eligible for free allocation will be updated every 5 years.
- The benchmark values for determining the level of free allocation to each installation will be updated twice in Phase IV to avoid windfall profits and reflect technological progress since 2008.

Overall, more than 6 billion allowances are expected to be allocated to industry for free over the period 2021-2030[8].

[7] EC [online] Market Stability Reserve https://ec.europa.eu/clima/policies/ets/reform_en
[8] EC Revision (Phase IV) https://ec.europa.eu/clima/policies/ets/revision_en

3.4 Funding low-carbon innovation and energy sector modernisation

Several low-carbon funding mechanisms will be set up to help energy-intensive industrial sectors and the power sector meet the investment challenges of transitioning to a low-carbon economy. These include two new funds:

- The Innovation Fund will support the demonstration of innovative technologies and breakthrough innovation in industry. It will extend existing support under the NER300 programme. The amount of funding available will correspond to the market value of at least 450 million emission allowances.
- The Modernisation Fund is a dedicated funding programme to support 10 lower-income EU Member States in their transition to climate neutrality by helping to modernise their energy systems and improve energy efficiency.

International Credits

Under the EU ETS, international credits encourage participants to help fight carbon emissions at a global scale. They allow participants to invest in (or pay for) emission reduction projects in developing countries as an alternative to more expensive reduction measures in their own countries[1]. However, these will not be continued post 2020 under the EU ETS and as such have not been carried across to the UK ETS.

However, alternative measures are to be introduced in the EU ETS in Phase IV, under the Paris Agreement through the linkage of international carbon markets.

The UK will remain a signatory to the Paris agreement post Brexit (explained in s.4.1 and UK guidance). However, it is not known exactly how mechanisms under the Paris Agreement, or opportunities for participants to contribute to the overall reduction of emissions, via support for developing countries, will be provided in the UK ETS.

4 Transition period for UK installations

Under Article 96 of the Withdrawal Agreement, the UK remains a full participant in the EU ETS during the transition period (1 February to 31 December 2020). This means that participating UK operators must meet their 2020 compliance obligations under the EU ETS.

The deadlines for UK operators participating in the EU ETS during the transition period are:

- Verified annual emissions reports for the 12 months of 2020 must be submitted by 31 March 2021.
- Allowances for 2020 emissions must be surrendered by 30 April 2021.

- The European Commission (EC) has confirmed that free allocation administered by the UK must be allocated by the National Administrator on or before 31 December 2020[9].

Each EU ETS member has their own unique account. At the end of each compliance year, operators must give up from their account one allowance for each tonne of carbon dioxide (or equivalent) emitted. Operators considered at risk of carbon leakage (explained in blue information box section 3.3) receive allowances through free allocation (if eligible) from their member state of predetermined amounts agreed by the EU Commission. Other operators buy allowances on the carbon market or via a government administered auction.[10]

4.1 International agreements

According to the UK Government, the UK will continue as a signatory to international climate change agreements such as the Kyoto Protocol and Paris Agreement:

> *The UK will also remain a Party to international climate change agreements, including the Paris Agreement. Its commitment to them will remain as strong as ever and will be unaffected by leaving the EU.*[11]

5 Opt out Scheme

Some UK-based operators falling within the scope of the EU ETS Directive are excluded from the scheme through their inclusion in the UK Small-Emitter and Hospital Opt-Out Scheme. Instead of receiving and needing to give up allowances these operators are given emissions targets, and these excluded installations pay only for emissions which exceed their target. Targets for excluded installations are set based on the allocation they would receive for free had they remained in the EU ETS. Aircraft operators with total emissions below 25,000t or EEA emissions below 3,000t may use a simplified verification procedure.

Will a similar process be used for those under opt-out of the UK ETS?

[9] BEIS (September 2020) Meeting climate change requirements from 1 January 2021. Available at https://www.gov.uk/government/publications/meeting-climate-change-requirements-if-theres-no-brexit-deal/meeting-climate-change-requirements-if-theres-no-brexit-deal

[10] ibid

[11] BEIS (September 2020) Meeting climate change requirements from 1 January 2021. Available at https://www.gov.uk/government/publications/meeting-climate-change-requirements-if-theres-no-brexit-deal/meeting-climate-change-requirements-if-theres-no-brexit-deal

6 Fines

According to the EU Handbook on the ETS, significant fines are imposed if companies fail to comply to surrender sufficient allowances in time. According to the Handbook, at the time of writing (2015), this was set at €100/tCO2, with the intention to increase with EU inflation. In addition, firms face an obligation to surrender the allowances owed.[12]

Examples

A number of examples have been displayed by SEPA in relation to fines issued under the EU ETS (the latest published in 2018). Fines shown range from £728 to £56,884.

For example:
Shell's Fife natural gas liquids plant was fined £40,056 by the Scottish Environment Protection Agency (SEPA), for failing to surrender sufficient allowances in 2013, 2014 and 2015.

For more detail see SEPA and SPICe (p.12)

Members may wish to ask the Department:

- What the fine rate would be under the UK ETS?
- Would the UK ETS use a sliding fine scale, so that the fine represents the size or level of income from the offending business? A flat rate may not deter repeat offences from larger companies with bigger incomes or profit margins. With a flat fine rate, it may be the smaller, less profitable companies that feel the effects the most.

[12] EC EU ETS Handbook (2015) https://ec.europa.eu/clima/sites/clima/files/docs/ets_handbook_en.pdf (p.16/17)