

Explanatory Memorandum to The Greenhouse Gas Emissions Trading Scheme Order 2020

This Explanatory Memorandum has been prepared by the Department for Environment, Energy and Rural Affairs and is laid before Senedd Cymru in conjunction with the above subordinate legislation and in accordance with Standing Order 27.1

Minister/Deputy Minister's Declaration

In my view, this Explanatory Memorandum gives a fair and reasonable view of the expected impact of The Greenhouse Gas Emissions Trading Scheme Order 2020. I am satisfied that the benefits justify the likely costs.

Lesley Griffiths
Minister for Environment, Energy and Rural Affairs
15 July 2020

PART 1

1. Description

This Order establishes a UK-wide greenhouse gas emissions trading scheme (ETS), to encourage cost-effective emissions reductions from the power, industrial and aviation sectors. The UK ETS will commence on 1 January 2021 to ensure there is a carbon pricing policy in place when the UK ceases its participation in the EU Emissions Trading System (EU ETS).

The Order provides details about the scope of participants, the environmental ambition as indicated by the cap and trajectory of allowances, requirements for monitoring, reporting and verification, charging, compliance and enforcement, penalties and appeals, and scheme reviews.

2. Matters of special interest to the Legislation, Justice and Constitution Committee

Part 3 of Schedule 3 to the Climate Change Act 2008 (CCA) states that an emissions trading scheme that applies to England, Scotland, Wales and Northern Ireland – such as in this case – must be established by Order in Council. The appropriate procedure for an Order in Council is prescribed by section 48 to the CCA. As the Order sets up a trading scheme, the affirmative procedure will be used.

As the Order in Council will be subject to UK Parliamentary scrutiny, it is not considered reasonably practicable for this instrument to be made or laid bilingually.

Additional legislation is required, as the CCA¹ does not allow for the allocation of emissions allowances in a trading scheme in return for payment (i.e. auctioning). The UK Government has laid a Finance Bill, clause 93 of which gives it the power to establish rules for the auctioning of emissions allowances and mechanisms to support market stability. On 24 June 2020, the Welsh Government secured the consent of the Senedd for the UK Government to legislate in the form of clause 93.

Additional and minor elements of UK ETS will be introduced through a second instrument due to be laid in the Senedd in November 2020. This will amend the affirmative procedure instrument, once made, to include provisions for free allocation and the UK ETS registry. As this instrument is not envisaged to contain any provisions which would be caught by section 48(3) of the CCA, the negative procedure will be used.

¹ Paragraph 5(4) in Schedule 2.

3. Legislative background

Section 44 of the CCA provides the power to make an instrument to put in place a trading scheme relating to greenhouse gas emissions. That power is exercisable by “the relevant national authority” (the Scottish Ministers, Welsh Ministers, Northern Ireland Ministers or the Secretary of State). Section 47 of the CCA defines the Welsh Ministers as the relevant national authority for matters within the Senedd’s legislative competence; or matters that relate to limiting or encouraging the limitation of activities in Wales that consist of the emission of greenhouse gases, other than activities in connection with offshore oil and gas exploration and exploitation.

The statutory procedure for putting in place a trading scheme is set out in Part 3 of Schedule 3 to the CCA. A UK-wide trading scheme must be established by Order in Council (paragraph 9 of Part 3 to Schedule 3). Pursuant to paragraph 11, before a recommendation may be made to Her Majesty in Council to make the Order in Council, a draft of the instrument containing the Order in Council must be laid before, and approved by, a resolution of each House of Parliament and the devolved legislatures. If it is approved by each of these, the Order will go to the Privy Council in November 2020, and will come into force the day after it is made.

4. Purpose and intended effect of the legislation

The purpose of this Order is to establish a UK-wide greenhouse gas emissions trading scheme (ETS), to encourage cost-effective emissions reductions which will contribute to the UK’s emissions reduction targets and net zero goal. Policy positions for a UK ETS, which is operational from 1st January 2021, have been agreed by the four Governments of the UK nations, and are set out in the Government Response to the Future of Carbon Pricing consultation, which was published on 1 June 2020.

The territorial extent of this Order is England, Wales, Scotland and Northern Ireland. The Order impacts on industry, the power sector and aviation. Schedule 1 of the Order sets out the flights covered by the UK ETS and all excluded flights. Schedule 2 sets out the scope of activities within stationary installations covered by the UK ETS.

This is a policy replacement for the UK’s participation in the EU Emissions Trading System, which will cease at the end of the Transition Period on 31 December 2020 (subject to the UK’s obligations in the Withdrawal Agreement pursuant to Article 96(2) in respect of 2020 compliance and the Protocol on Ireland/Northern Ireland). This would also allow for the possibility and consideration of a link between a UK ETS and the EU ETS, subject to the UK Government’s negotiations on a future relationship with the EU.

5. Consultation

Details of consultation have been included in the RIA below.

PART 2 – REGULATORY IMPACT ASSESSMENT

6. Background

The ETS is a key policy for reducing emissions in the power sector, energy intensive industries, and the aviation sector (the ‘traded sectors’). Government intervention is necessary to ensure emissions from sectors currently covered by the EU ETS continue to be covered by a carbon pricing policy following UK withdrawal from the EU.

The objective of the policy is to incentivise cost-effective emissions reductions for sectors currently in scope of the EU ETS, while balancing this ambition with the competitiveness of UK industry.

Placing a price on carbon creates the incentive for emissions to be reduced in a cost effective and technology-neutral way, whilst mobilising the private sector to invest in emissions reduction technologies and measures. The establishment of a UK wide scheme will ensure continuity of a carbon pricing policy to stimulate decarbonisation of the power, industrial and aviation sectors. The traded sector accounted for approximately 46% of Wales’ emissions in 2018; therefore, this is a key policy among a suite of interventions to reduce greenhouse gas emissions from Wales while managing business competitiveness issues.

Many of the design features mirror the EU ETS, providing continuity for businesses and facilitating linking with the EU system. However, in recognition of the commitment across the UK to move towards net zero greenhouse gas emissions by 2050, the cap has been set at 5% below the notional UK share of the EU ETS cap. This decision was informed by an understanding of current emissions compared to the notional cap, which identified there would be significant over-supply of allowances if we did not reduce the cap.

It may be necessary to adjust the cap further to ensure it is in line with our net zero ambitions. The Committee on Climate Change (CCC) will be providing advice on a pathway to net zero in December and we have committed to consult on any changes to the cap within 9 months and implement required changes by 1 January 2023 if possible and at the latest by 1 January 2024.

Given this Order is intended to operate alongside other pieces of legislation to establish the UK Emissions Trading Scheme, it was not appropriate to carry out several segmented Regulatory Impact Assessments but one holistic impact assessment of the policy as a whole.

A detailed UK-wide impact assessment of the scheme was published alongside the joint government response to the consultation and is available here: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/889038/The_future_of_UK_carbon_pricing_impact_assessment.pdf

7. Options

The following options were assessed.

Standalone UK ETS

We assessed the design of the UK ETS set out in the government response document, in its initial years of operation (from 2021 to 2024). This system is intended to fulfil the policy objectives outlined above as a standalone system, while also providing a platform to negotiate a linked system with the EU ETS, if it is in the best interests of both parties.

Status Quo

The policy option is compared against a counterfactual of continued UK participation in the EU ETS in Phase IV of the system. This represents the main policy that would have covered greenhouse gas emissions in the traded sectors if the UK were to have remained part of the EU.

There were significant constraints on further options. The governments of the four UK nations are committed to continued statutory carbon pricing policy following the UK's departure from the EU. The establishment of a successor scheme to the EU ETS is one of the jointly agreed common framework areas.

Long-term ETS policy, including a linking agreement, is subject to ongoing negotiations between the UK Government and the EU and so quantitative analysis of this is not within scope of this IA.

7. Costs and benefits

The UK ETS system wide costs and benefits

The assessment considers the initial years of the UK ETS (2021-2024), based on the design set out in the government response:

- a cap on emissions set based on a 5% reduction on the UK's notional share of the EU ETS,
- free allocation based on the UK's notional share of the EU ETS, and
- a transitional auction reserve price starting at £15 per allowance.

For the analysis below, the Price Base Year is 2019, the PV Base Year is 2019 and the time period is 6 years.

Relative to the counterfactual the key monetised costs of the entire UK wide UK ETS are:

- the cost incurred by firms reducing their emissions to meet the cap i.e. 'resource' cost (£25 to 59 million);
- the administrative costs to firms in complying with the new policy (£4m);
- and

- the administrative cost to government (including regulators) in establishing and administering the policy (£7m).

Overall, the estimated range of monetised costs relative to the counterfactual is £36 to 70m (present value).

Relative to the counterfactual key non-monetised costs of the entire UK wide UK ETS include:

- potential loss of UK business competitiveness relative to international competitors, if higher carbon costs lead to increased production costs and significantly impact profitability and market share;
- potential carbon leakage as a result of higher carbon values;
- potential increase in cost to consumers if higher carbon costs to businesses are passed on in the form of higher prices.

However we do not expect these costs to materialise to a significant degree, as we do not expect a significant differential in carbon values in the UK ETS relative to counterfactual scenario.

Relative to the counterfactual the main monetised benefit of the policy scenario is the carbon benefit, which represents the benefit to society of reduced emissions in the sectors covered by the UK ETS. Based on the UK ETS design modelled, we expect greater emissions reductions under the policy compared to the counterfactual. The estimated range of the monetised benefit relative to the counterfactual is £102 to 162m (present value) for the entire UK wide scheme.

Relative to the counterfactual the key non-monetised benefits are:

- potential improvements in air quality if the policy leads to reduction in activities that generate pollutants as well as greenhouse gas emissions;
- potential long-term positive impacts on UK business competitiveness relative to international competitors, if higher carbon values increase investment and innovation in new low carbon technologies and processes;
- more efficient and cost-effective decarbonisation if the policy leads to reductions in emissions through the least-costly methods; and
- spill-over benefits through the growth of the green and circular economies.

Overall, the best estimate of the Net Benefit (Present Value (PV)) is £66 million to £92 million.

Impacts in Wales

The scope of the UK ETS in its first phase will be the same as the EU ETS in Phase IV for stationary sectors. Therefore, the following assessment is based on data relating to current EU ETS participants.

In 2019 there were 72 stationary installations participating in the EU ETS in Wales out of around 1,000 UK stationary installations. Having removed installations likely to opt out of the main policy under the small and ultra-small emitters opt-out schemes there are 62 installations remaining out of the estimated 655 UK wide (approximately 9% of the total number in the full scheme). The scope of activities covered by Welsh scheme participants will include the combustion of fossil fuels and a range of industrial activities including the production of pig iron or steel, production or processing of ferrous metals, refining of mineral oil, production of paper or cardboard, production of cement clinker, production of bulk organic chemicals and manufacture of mineral wool.

The emissions from the ETS participants accounted for 46% of total emissions from Wales in 2018 which is significantly higher than the around 30% at the UK level. This is reflective of the fact Wales is a net exporter of electricity and has a higher proportion of industrial activity (and consequently emissions), for instance our large steel works, oil refinery and cement works, compared to other nations of the UK. Therefore, notionally the impact of the policy will be greater on the overall emissions reduction pathway in Wales. However, given the purpose of the scheme is to deliver cost-effective decarbonisation across the whole population of scheme participants, and the decarbonisation potential and investment appetite of individual operators is not known, a specific amount of emissions reduction within Wales cannot be estimated confidently.

It should be noted there are considerable uncertainties around future industrial activity and associated emissions in Wales as a result of global competition added to the impacts of the coronavirus pandemic. Additionally, detail of abatement opportunities and investment appetite at the installation level are not publicly available. Therefore, the following assessment is illustrative of the potential scale of impact but should not be viewed as a projected estimate.

Costs to businesses (scheme participants)

The administrative costs to businesses in Wales will be broadly similar to that of remaining in the EU ETS. Government is paying the cost of establishing the IT system, and the reporting requirements do not add administrative costs. The permitting system will also be streamlined as far as possible.

Mechanisms have been introduced into the scheme to manage extremes of carbon prices, ensuring the incentive to decarbonise remains while protecting businesses against extremely high costs. This includes an auction reserve price (ARP) of £15 per allowance. Additionally, free allowances are allocated to

some industrial installations to ensure they remain globally competitive. The free allocation methodology will mirror that in phase 4 of the EU ETS.

By applying a proportion of the UK wide costs to Welsh participants (based on 9% of the installations based in Wales) the indicative scale of additional costs compared to the counterfactual is £2.25 million to £5.31 million across the same 6 year time period. Attributing costs as a proportion of the total emissions (approximately 15%) the indicative scale of additional costs compared to the counterfactual is £3.75 million to £8.85 million across the same 6 year time period. However, these are indicative only due to the number of variables impacting on costs.

The degree to which these costs are significant to individual businesses will depend on a wide range of factors and will vary depending on the characteristics of the business affected and the amount of free allocation that they receive. However, higher carbon costs in the short term could also increase the sustainability of our industrial base through an increased incentive for more innovation and investment in low-carbon technologies, which will improve their long-term competitiveness.

Therefore, the following are indicative total compliance costs of two illustrative scenarios based on £15 per tonne CO₂e (the Auction Reserve Price) and £32 per tonne CO₂e. Based on the 8.06 million allowances which were required to be purchased by Welsh participants in the EU ETS in 2019, the annual cost to businesses would be between £120.9 million and £257.93 million. It should be noted that the 2018 and 2019 ETS emissions were broadly similar, having seen a reduction of 3.5 million tonnes between 2017 and 2018 due to a number of factors including significantly reduced output from Aberthaw power station.

The number of allowances which Welsh businesses will need to purchase will vary year on year, and can be influenced by production changes in some of our major sites and whether the sites receive free allowances, the weather (cold, still winters will require more output from our fossil fuelled power stations) and implementation of energy efficiency and other decarbonisation measures. Given the number of variables, and the large impact commercial decisions by a few discrete businesses will have on the total emissions, accurate projections are not possible.

The balance of mitigating measures within the scheme design and the setting of the auction reserve price at a relatively conservative level are designed to ensure a smooth transition for businesses and limited additional costs.

Costs to the Welsh Government

The main costs to government in establishing the UK ETS are the costs of IT systems - a registry to hold emissions allowances and a system for permitting, monitoring, reporting and verification (PMRV). Both systems will replace the corresponding EU systems which the UK currently accesses.

The majority of the cost for both systems has to date been funded through the UK Government's EU exit funding pot. However, from 2021/22 it is anticipated all governments will contribute to the PMRV development costs, and future enhancements of both systems. An estimate of costs to the Welsh Government in 2021/22, based on use of the Barnett formula, is £80,000 - £120,000. Thereafter, costs are projected to be significantly lower.

Other costs include staff costs within the Welsh Government and within Natural Resources Wales. It is not anticipated the scheme will result in any additional staff costs compared to the counterfactual (remaining in the EU ETS).

Benefits – transfers to public funds

The public sector will benefit from any auction revenues from the scheme; therefore, using the two illustrative scenarios based on £15 per tonne CO₂e (the Auction Reserve Price) and £32 per tonne CO₂e, the 8.06 million allowances which were required to be purchased by Welsh participants in the EU ETS in 2019, and an assumption all allowances would be purchased at auction, the annual transfer to public sector would be between £120.9 million and £257.93 million. Under current practices, these funds are not hypothecated but contribute to general Treasury coffers. However, an alternative approach the Welsh Government supports for is the establishment of an industrial decarbonisation fund to recycle auction receipts into funding packages for deep decarbonisation of our industries.

The non-monetised costs and benefits will apply in Wales, subject to decisions by businesses to invest in decarbonisation measures for compliance purposes.

8. Consultation

Between 2 May 2019 and 12 July 2019, the UK Government and Devolved Administrations ran a 10 week public consultation seeking views on the UK's future carbon pricing policy. Additionally, two stakeholder events were held in Wales to gather views of interested parties including potential scheme participants.

This consultation stated a UK ETS linked to the EU ETS is the UK Government and Devolved Administrations' preferred carbon pricing policy, and if this could not be secured alternative options included a standalone UK emissions trading scheme, a carbon emissions tax, or remaining in Phase IV of the EU ETS. The consultation set out policy proposals for a UK ETS and sought views on these proposals from stakeholders.

Alongside the consultation, the governments jointly commissioned the Committee on Climate Change (CCC) for advice on both a standalone and linked UK ETS.

The public consultation received over 130 responses, from a range of stakeholders including current EU ETS participants and non-governmental organisations, with the majority supporting most of the proposals on the design of a UK ETS. A large proportion of stakeholders expressed a preference to link a UK ETS to the EU ETS.

However, there were concerns raised by industry, particularly around the need to take a fair, proportionate and considered approach to potential improvements to free allocation. While there will be no changes to free allocation at the outset of the scheme, given the lack of credible and robust data to support a different approach at this time, we will begin a full review of possible future changes in the coming months.

The government response to the consultation, including a summary of responses, was published on 1 June 2020.

Full details of the consultation can be found at:

<https://gov.wales/future-uk-carbon-pricing>

9. Competition Assessment

Given the UK ETS establishes a carbon market, the interpretation of “market” and “market share” here relates to emissions or allowances held. It is dominance of a few participants in the scheme which has the potential for competition impacts rather than the dominance of businesses within their own industrial sectors.

The competition filter test	
Question	Answer yes or no
Q1: In the market(s) affected by the new regulation, does any firm have more than 10% market share?	No
Q2: In the market(s) affected by the new regulation, does any firm have more than 20% market share?	No
Q3: In the market(s) affected by the new regulation, do the largest three firms together have at least 50% market share?	No
Q4: Would the costs of the regulation affect some firms substantially more than others?	Yes
Q5: Is the regulation likely to affect the market structure, changing the number or size of firms?	No
Q6: Would the regulation lead to higher set-up costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q7: Would the regulation lead to higher ongoing costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q8: Is the sector characterised by rapid technological change?	No
Q9: Would the regulation restrict the ability of suppliers to choose the price, quality, range or location of their products?	No

The policy design, in particular the issue of free allowances, is designed to protect businesses at highest risk of competitive disadvantage. Therefore, some scheme participants will be impacted by greater costs than others. However, given free allocation is to be based on activities and benchmarks, there should be no market distortion.

10. Post implementation review

The Order contains provision for the four governments of the UK nations, who will constitute the UK ETS authority, to carry out two reviews of the operation of the UK ETS within the 10 year phase. The UK ETS authority must publish its report setting out the conclusions of the review. The reviews must be concluded by 31 December 2023, in the case of the early phase review and 31 December 2028 for the later review.

The reports must review the operation of the UK ETS (including assessing the extent to which the purpose of the UK ETS is being achieved) and make any recommendations that the UK ETS authority considers appropriate as to the future operation and purpose of the UK ETS.