A Direction given by:

The Secretary of State to the Environment Agency;

The Department of Agriculture, Environment and Rural Affairs, Northern Ireland to the chief inspector, Northern Ireland;

The Scottish Ministers to the Scottish Environment Protection Agency; and

The Welsh Ministers to the Natural Resources Body for Wales

under paragraphs 3(2), 3(11) and 6(8) of Schedule 5 to the Greenhouse Gas Emissions Trading Scheme Regulations 2012

1. Interpretation

1.1. In this Direction:

1.1.1. "allocation period" means:

(a) the period which begins with 1st January 2021 and ends with 31st December 2025 ("allocation period 2021-2025");

(b) the period which begins with 1st January 2026 and ends with 31st December 2030 ("allocation period 2026-2030");

1.1.2. "Article 27 installation" is an installation that, for the duration of a particular allocation period, is deemed to be approved by the European Commission under the first subparagraph of Article 27(2) of Directive 2003/87/EC, unless a notice has been given to the operator under paragraph 8(1) or (4) of Schedule 5 of the Greenhouse Gas Emissions Trading Scheme Regulations 2012 (in which case the installation ceases to be an Article 27 installation as from the date specified in the notice);

1.1.3. "authority" means any of the Secretary of State, the Welsh Ministers, the Scottish Ministers and the Department of Agriculture, Environment and Rural Affairs in Northern Ireland;

1.1.4. "baseline period" means:

(a) in relation to the allocation period 2021–2025, the period 2016-2018; and

(b) in relation to the allocation period 2026–2030, the period 2021-2023;

1.1.5. "emissions target" in relation to a scheme year, means an amount of reportable emissions specified in an Article 27 installation emissions permit as the target for that excluded installation in that year;

1.1.6. "Free Allocation Regulation" means Commission Delegated Regulation (EU) 2019/331 of 19 December 2018 determining transitional Union-wide rules for harmonised free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC of the European Parliament and of the Council;

1.1.7. "MRR" means Commission Implementing Regulation (EU) No 2018/2066 of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council;

1.1.8. “regulator” means any of the Environment Agency, the Scottish Environment Protection Agency, the Natural Resources Body for Wales, the Offshore Petroleum Regulator for Environment and Decommissioning and the chief inspector in Northern Ireland;

1.1.9. “Regulations” means the Greenhouse Gas Emissions Trading Scheme Regulations 2012;

1.1.10. “Verification Regulation 2018” means Commission Implementing Regulation (EU) No 2018/2067 of 19 December 2018 on the verification of data and on the accreditation of verifiers pursuant to Directive 2003/87/EC of the European Parliament and of the Council;

1.1.11. “Verification Regulation 2012” means Commission Regulation (EU) No 600/2012 of 21 June 2012 on the verification of data and on the accreditation of verifiers pursuant to Directive 2003/87/EC of the European Parliament and of the Council;

1.1.12. “year n” means the year following a capacity increase at a sub-installation.

1.2. In this Direction references to paragraphs or sub-paragraphs are to paragraphs or sub-paragraphs contained within Schedule 5 of the Regulations.

2. Purpose

2.1. This is a Direction to the regulator made under the powers in section 40 of the Environment Act 1995, in article 11 of the Natural Resources Body for Wales (Establishment) Order 2012 and regulation 40 of the Pollution Prevention and Control (Industrial Emissions) Regulations (Northern Ireland) 2013.

2.2. The purpose of the Direction is to direct the regulator as to the calculation of emissions targets for Article 27 installations and to specify the relevant provisions for the purposes of monitoring and reporting emissions from Article 27 installations pursuant to paragraphs 3(2), 3(11) and 6(8).

2.3. Paragraph 3(2) provides that:

“The authority must exercise powers under section 40 of the Environment Act 1995, article 11 of the NRBW Order or regulation 40 of the Northern Ireland Regulations, to give the regulator directions as to the calculation of the emissions targets included under sub-paragraph (1)(e).”

2.4. In relation to Article 27 installation emissions permits which will take effect from 1 January 2021, sub-paragraph 1(e) specifies that an Article 27 installation emissions permit must contain “an emissions target for each scheme year over the first or second allocation period, as the case may be”.

2.5. Paragraph 6(8) provides that:

“The authority must exercise powers under section 40 of the Environment Act 1995, article 11 of the NRBW Order or regulation 40 of the Northern Ireland Regulations, to give the regulator directions as to—

a) the further matters required to be taken into account when considering an application under sub-paragraph (1) or (2A); and

b) the calculation or recalculation of emissions targets under sub-paragraphs (4) or (6).”

2.6. Paragraph 6(4) provides for the regulator to calculate a new emission target for the year in which an application for an emission target increase was received and for each subsequent year and paragraph 6(6) provides for the regulator to recalculate that target where the evidence provided in the application is subsequently found to be incorrect or incomplete.

2.7. Paragraph 3(11) provides that: "The authority must exercise powers under section 40 of the Environment Act 1995, article 11 of the NRBW Order or regulation 40 of the Northern Ireland Regulations, to give the regulator directions as to the provisions that are to be specified in accordance with sub-paragraph (10)."

2.8. Sub-paragraph (10) specifies that the "relevant provisions" of the Monitoring and Reporting Regulation that an Article 27 installation operator must comply with are those provisions specified in the permit as relevant.

3. Paragraph 3(2): Direction as to the calculation of emissions targets to be included in an Article 27 installation emissions permit for the allocation periods 2021-25 and 2026-2030.

3.1. The regulator must include emissions targets for each scheme year in the Article 27 installation emissions permits for each Article 27 installation as required under paragraph 3(1)(e). For the allocation period 2021-2025 this must be done by 1 January 2021, or as soon as practicable thereafter, and for the allocation period 2026-2030 this must be done by 1 January 2026, or as soon as practicable thereafter.

3.2. The regulator may calculate the emissions targets prior to the start of each allocation period but the emissions targets must not be included in the Article 27 installation emissions permits until 1 January 2021 for the allocation period 2021-2025 or 1 January 2026 for the allocation period 2026-2030.

3.3. The regulator must set emissions targets according to the historic emissions methodology set out under sections 4 and 5 of this Direction.

4. Historic emissions target for the allocation period 2021-2025:

4.1. For installations that began operation before 2016, the regulator must set the target for 2021 for each relevant installation by taking the arithmetic mean average of that installation's historical emissions over the baseline period, as set out in paragraph 4.4 of this Direction, and reducing it by 8.45% (as the percentage appropriate to reduce emissions to be consistent with the annual decline expected between the baseline period and 2021).

4.2. For installations that began operation between 2016 and 2018, the regulator must set the target for 2021 for each relevant installation, by using the relevant emissions as set out in paragraphs 4.5 to 4.7 of this Direction, and reducing it by 8.45% (as the percentage appropriate to reduce emissions to be consistent with the annual decline expected between the baseline period and 2021).

4.3. The regulator must set annual targets for the rest of the allocation period such that they align with the linear reduction factor in the EU ETS cap for the trading period 2021-2030 (Phase IV). The linear reduction factor for Phase IV is 2.2% of the Phase III baseline level (arithmetic mean average of 2008-2012 emissions).

Formula for calculating the historic emission target in each scheme year

Target = Relevant emissions x Annual Reduction Factor for each year

(ie. $Target_{year\ n}$ = Relevant emissions x Annual Reduction $Factor_{year\ 1}$ x .. x Annual Reduction $Factor_{year\ n}$)

Relevant emissions

4.4. For the allocation period 2021-2025, the relevant emissions for installations that began operation before 2016 must be set at the average of 2016, 2017 and 2018 verified annual emissions.

Relevant emissions = $(E_{2016}+E_{2017}+E_{2018})/3$

4.5. For installations that began operation in 2016, the relevant emissions must be set at the average of 2017 and 2018 verified annual emissions.

Relevant emissions = $(E_{2017}+E_{2018})/2$

4.6. For installations that began operation in 2017, the relevant emissions must be set at 2018 verified annual emissions.

4.7. For installations that began operation in 2018, the relevant emissions must be set at the level of verified annual emissions resulting from the regulated activities carried out at the installation in the first full calendar year of operation.

4.8. For installations that began operation in 2019 or 2020, the regulator must set the targets in accordance with paragraphs 4.9 and 4.11 of this Direction.

4.9. For the calculation of the target for 2021, regulators must use, as relevant emissions, the estimate of 2021 reportable emissions submitted by the operator as part of its application for a greenhouse gas emissions permit under the Regulations.

4.10. For 2022 to 2025, the targets must be calculated when the installation has carried out regulated activities for a whole calendar year.

4.11. The tables below set out how targets must be calculated.

Installations beginning operation in 2019

2021 target	2022 target	2023 target	2024 target	2025 target
2021 estimated emissions x 2021 ARF	Target based on 2020 verified emissions data. Target = 2020 emissions x 2021 ARF x 2022 ARF	Target = 2022 target x 2023 ARF	Target = 2023 target x 2024 ARF	Target = 2024 target x 2025 ARF

Installations beginning operation in 2020

2021 target	2022 target	2023 target	2024 target	2025 target

2021 estimated emissions x 2021 ARF	Target = 2021 target x 2022 ARF	Target based on 2021 verified emissions data. Target = 2021 emissions x 2021 ARF x 2022 ARF x 2023 ARF	Target = 2023 target x 2024 ARF	Target = 2024 target x 2025 ARF

Annual Reduction Factor values (producing an 8.45% reduction in 2021 using the new baseline emissions and a decline of a 2.2% share of the Phase III baseline thereafter)

Year	**Annual Reduction Factor**
2021	0.9155
2022	0.9726
2023	0.9719
2024	0.9711
2025	0.9702

On an annual basis, each factor should be applied to the previous year's target in order to reduce the target by the same percentage as for the rest of the targets in Phase IV.

5. Historic emissions target for the allocation period 2026-2030:

5.1. For installations that began operation before 2021, the regulator must set the target for 2026 for each relevant installation by taking the arithmetic mean average of that installation's historical emissions over the baseline period, as set out in paragraph 5.4 of this Direction, and reducing it by 11.25% (as the percentage appropriate to reduce emissions to be consistent with the annual decline expected between the revised baseline period and 2026).

5.2. For installations that began operation between 2021 and 2023, the regulator must set the target for 2026 for each relevant installation, by using the relevant emissions as set out in paragraphs 5.5 to 5.7 of this Direction, and reducing it by 11.25% (as the percentage appropriate to reduce emissions to be consistent with the annual decline expected between the revised baseline period and 2026).

5.3. The regulator must set annual targets for the rest of the allocation period such that they align with the linear reduction factor in the EU ETS cap in the trading period 2021-2030 (Phase IV). The linear reduction factor for Phase IV is 2.2% of the Phase III baseline level (arithmetic mean average of 2008-2012 emissions).

<u>Formula for calculating the historic emission target in each scheme year</u>

Target = Relevant emissions x Annual Reduction Factor for each year.

(ie. $Target_{year\ n}$ = Relevant emissions x Annual Reduction $Factor_{year\ 1}$ x .. x Annual Reduction $Factor_{year\ n}$)

Relevant emissions

5.4. For the allocation period 2026-2030 the relevant emissions for installations that began operation before 2021 will be the average of 2021, 2022 and 2023 verified annual emissions. Relevant emissions = $(E_{2021}+E_{2022}+E_{2023})/3$

5.5. For installations that began operation in 2021, the relevant emissions must be set at the average of 2022 and 2023 verified annual emissions.

Relevant emissions = $(E_{2022}+E_{2023})/2$

5.6. For installations that began operation in 2022, the relevant emissions must be set at 2023 verified annual emissions.

5.7. For installations that began operation in 2023, the relevant emissions must be set at the level of verified annual emissions resulting from the regulated activities carried out at the installation in the first full calendar year of operation.

5.8. For installations that began operation in 2024 or 2025, the regulator must set the targets in accordance with paragraphs 5.9 and 5.11 of this Direction.

5.9. For the target for 2026, regulators must use, as relevant emissions, the estimate of 2026 reportable emissions submitted by the operator as part of its application for a greenhouse gas emissions permit under the Regulations.

5.10. For 2027 to 2030, the targets must be calculated when the installation has carried out regulated activities for a whole calendar year.

5.11. The tables below set out how targets must be calculated.

Installations beginning operation in 2024

2026 target	2027 target	2028 target	2029 target	2030 target
2026 estimated emissions x 2026 ARF	Target based on 2025 verified emissions data. Target = 2025 emissions x 2026 ARF x 2027 ARF	Target = 2027 target x 2028 ARF	Target = 2028 target x 2029 ARF	Target = 2029 target x 2030 ARF

Installations beginning operation in 2025

2026 target	2027 target	2028 target	2029 target	2030 target
2026 estimated emissions x 2026 ARF	Target = 2026 target x 2027 ARF	Target based on 2026 verified emissions data. Target = 2026 emissions x 2026 ARF x 2027 ARF x 2028 ARF	Target = 2028 target x 2029 ARF	Target = 2029 target x 2030 ARF

Annual Reduction Factor values (producing a 11.25% reduction in 2026 from the revised baseline emissions and a decline of 2.2% amount of the Phase III baseline thereafter)

Year	**Annual Reduction Factor**
2026	0.8875
2027	0.9683
2028	0.9673
2029	0.9662
2030	0.9650

On an annual basis, each factor should be applied to the previous year's target in order to reduce the target by the same percentage as for the rest of the targets in Phase IV.

5.12. In exercising its powers under Schedule 5, paragraph 7(4) to the Regulations, the regulator must treat the bankable amount for a scheme year as zero if the installation's emissions target for that scheme year is calculated on the basis of an estimate of emissions in application of paragraphs 4.8 to 4.11 and 5.8 to 5.11 of this Direction.

6. Paragraph 6(8): Direction as to the adjustment of emission targets following an increase in the capacity of an Article 27 installation.

6.1. Where an operator makes an application for the increase in the emissions targets for the Article 27 installations for the allocation period 2021-2025 or the allocation period 2026-2030 under paragraph 6(1) or 6(2A), as the case may be, the regulator must make any adjustment to emissions targets under sub-paragraphs (4) and (6) according to the following rules.

6.2. The requirements and timing of an application are set out in paragraphs 6(2), 6(2B) and 6(3) and include the requirement in sub-paragraph 3(e) that applications must contain:

> "any further matters that the regulator is required to take into account by a direction referred to in sub-paragraph (8)."

6.3. The regulator is so directed that they must take into account the following four variables in determining any increase in annual emissions targets:

a) Maximum output capacity of net increase in capacity;

b) Benchmark relevant to the extension of capacity;

c) Capacity Utilisation Factor;

d) Annual Reduction Factor.

6.4. The regulator must require the operator to provide such information in its application form as is required to take those variables into account.

6.5. In taking into account the above variables, the regulator must calculate the increase in target for each year according to the following formula:

<u>For each sub-installation where an increase of capacity has taken place:</u>

$T_e = B \times O \times CUF \times A \times F$

Terms

T_e = amount of target increase in year n as a result of the capacity increase at the sub-installation

B = benchmark relevant to the activity at the sub-installation in which the capacity increase took place

O = maximum output capacity of the net increase in capacity at the sub-installation

CUF = capacity utilization factor

A = annual reduction factor for year n

F = first year of capacity extension factor

Benchmark relevant to the activity at the sub-installation in which the capacity increase took place

6.6 The benchmarks values used shall be those approved according to Article 10a(2) of Directive 2003/87/EC with reference to the allocation period 2021-2025 or the allocation period 2026-2030 respectively.

6.7 The benchmark applied must be the benchmark relevant to the sub-installation at which the increase in capacity has been installed. Determination of sub-installations must be in accordance with Article 10 of the Free Allocation Regulation (disregarding application of carbon leakage status).

Maximum output capacity of net increase in capacity at the sub-installation

6.8 The maximum output capacity of the capacity extension must be determined by the rated capacity or design capacity of the extension, taking into account any physical restrictions, as if it were operated for a full day (24 hours). However, where a rated or design capacity is not applicable to the sub-installation at which the capacity increase took place, the maximum output capacity must be determined by way of a design report supported by evidence from testing to establish the maximum daily level of production or throughput of the capacity extension.

6.9 The net increase in capacity will be determined from a baseline of the installed maximum output capacity at the last time that installation targets were set or increased. Previous reductions in capacity will not be taken into account in the baseline.

6.10 To determine the net increase in capacity, evidence of the baseline maximum output capacity will be required if there has been a decrease in capacity since targets were last set. A baseline may also be required if the change involves replacement of some existing equipment.

6.11 The net increase in capacity must be expressed in those units defined for the applicable product benchmark, or for heat installations in terajoules of measurable heat, for fuel benchmarks in terajoules of fuel input and for process emissions in tonnes of CO2e.

6.12 The maximum daily output capacity will be converted into an annual figure by multiplying the maximum output capacity by the number of days in the corresponding year.

Capacity Utilisation Factor

6.13 The capacity utilisation factor must relate to the reasonable level of expected activity (production or throughput) of the extension of capacity as a proportion of the maximum output capacity.

6.14 This shall take into account ordinary intended normal operation, maintenance, common production cycle, any planned seasonal closures, energy efficient techniques and typical capacity utilisation in the sector concerned compared to sector-specific information.

Annual Reduction Factor

6.15 The annual reduction factor shall reduce the increased target amount in each scheme year. The regulator must use the following annual reduction factors for the first allocation period:

Year	**Annual Reduction Factor**
2021	1.0000
2022	0.9726
2023	0.9719
2024	0.9711
2025	0.9702

On an annual basis, each factor should be applied to the previous year's target in order to reduce the target by the same percentage as for the rest of the targets in Phase IV.

The regulator must use the following annual reduction factors for the second allocation period:

Year	**Annual Reduction Factor**
2026	1.0000
2027	0.9683
2028	0.9673
2029	0.9662
2030	0.9650

On an annual basis, each factor should be applied to the previous year's target in order to reduce the target by the same percentage as for the rest of the targets in Phase IV.

First year of capacity extension factor

6.16 In the year in which the capacity extension was installed, the first year of capacity extension must equal the number of days remaining in the scheme year after the date on which the capacity extension was installed and operational divided by the number of days in the corresponding year.

6.17 In all other years the first year of capacity extension must equal one.

Treatment of cross boundary heat flows

6.18 In accordance with paragraph 6(3)(d) of the Regulations, where the installation has cross boundary heat flows, the target increase should be given to the installation generating the heat or emissions, as opposed to the installation consuming the heat.

6.19 Therefore, the capacity used to determine the increase in target should include eligible capacity increases that are associated with exported heat but exclude any capacity associated with imported heat irrespective of whether the other installation sending or receiving the heat is covered by the Directive 2003/87/EC.

Calculating the final emission targets for the installation:

6.20 The regulator must calculate the final target due to the installation in each year according to the following formula:

$$T_c = T_n + \sum T_e$$

Definitions

T_c = new target for installation in year n of the relevant allocation period, reflecting the increase in a capacity

T_n = pre-existing installation target as recorded in the installation's Article 27 installation emissions permit for year n of of the relevant allocation period.

T_e = the amount of target increase in year n as a result of the capacity increase at the sub-installation

$\sum T_e$ = sum of the values for T_e for year n applying to each sub-installation at which a capacity increase has taken place

7 Paragraph 3 (11): Direction as to the relevant monitoring and reporting provisions

7.1 The regulator is directed that the relevant provisions of the MRR to be specified in Article 27 installation emissions permits are all provisions in the MRR with the modifications and exceptions set out below in paragraphs 7.2 to 7.8 of this Direction.

Relevant Monitoring, Reporting and Verification

7.2 References in the MRR to 'greenhouse gas emissions permits' must be treated as references to 'Article 27 installation permits'.

7.3 References in the MRR to 'verified annual emission report' or 'report verified in accordance with the Verification Regulation 2018' should be read as the report of the annual reportable emissions required to be submitted under paragraph 3(8)(b).

7.4 References to 'verified annual emissions' should be read as the emissions amount reported in the report of the annual reportable emissions required to be submitted under paragraph 3(8)(b).

7.5 References to the verifier and verification should be read as if referring to the regulator and activities under their risk-based auditing programme.

7.6 Article 70 of the MRR does not apply.

7.7 Where the operator chooses in any scheme year to have their report of the annual reportable emissions verified by a third-party verifier the modifications set out above in paragraphs 7.2 to 7.5 of this Direction do not apply to that installation in that year. As set out in paragraph 3(8)(b)(i) of the Regulations third-party verification must be carried out in accordance with the Verification Regulation 2018.

Provisions for installations with low emissions

7.8 Article 47(1) to (7) of the MRR shall apply to all Article 27 installations.

Further exemptions

7.9 Article 47(8) of the MRR shall not apply.

8 Data

8.1 In calculating emissions targets under paragraphs 3 to 6 of this Direction (with the exception of circumstances where an estimate of emissions is used), the regulator must only use data which has been:

(a) verified in accordance with the Verification Regulation 2012 or the Verification Regulation 2018; or

(b) self-verified in accordance with paragraph 3(8)(b)(ii).

8.2 In calculating an adjustment of targets following an eligible increase in capacity the regulator may use unverified data supplied by the operator.

8.3 The regulator may only use data supplied by operators in determining eligibility for an adjustment in target and in calculating any target adjustment where the regulator is satisfied that the data is complete, consistent, comparable with previously reported data, transparent, accurate and has integrity.

9 Rounding

9.1 In setting emissions targets under paragraphs 3 to 6 of this Direction or adjusting emissions targets the regulator must round the target up to the nearest tonne.

10 Commencement and revocation

10.1 This Direction comes into force on 19 May 2020.

10.2 The Direction issued on 1 January 2013 is revoked on 1st January 2021. It continues to apply for the remainder of the trading period 2013-2020 (Phase III).

Signed by:

Kwasi Kwarteng MP, Minister of State, on behalf of the Secretary of State for Business, Energy and Industrial Strategy

Lesley Griffiths MS, Minister for Environment, Energy & Rural Affairs

Roseanna Cunningham MSP, Cabinet Secretary for Environment, Climate Change and Land Reform

Edwin Poots MLA, Minister for The Department of Agriculture, Environment and Rural Affairs