EUROPEAN
COMMISSION

Brussels, XXX
C(2022) 631/3

ANNEX 2

ANNEX

to the

COMMISSION DELEGATED REGULATION (EU) .../...

amending Delegated Regulation (EU) 2021/2139 as regards economic activities in certain energy sectors and Delegated Regulation (EU) 2021/2178 as regards specific public disclosures for those economic activities

This draft has been approved in principle by the European Commission on 2 February 2022 and its formal adoption in all the official languages of the European Union will take place later on, as soon as the language versions are available.

ANNEX II

In Annex II to Delegated Regulation (EU) 2021/2139, the following Sections 4.26, 4.27, 4.28, 4.29, 4.30, and 4.31 are inserted:

"4.26 Pre-commercial stages of advanced technologies to produce energy from nuclear processes with minimal waste from the fuel cycle

Description of the activity

Research, development, demonstration and deployment of innovative electricity generation facilities, licenced by Member States' competent authorities in accordance with applicable national law, that produce energy from nuclear processes with minimal waste from the fuel cycle.

The activity is classified under NACE code M72 and M72.1 in accordance with the statistical classification of economic activities established by Regulation (EC) No. 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

1. The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that substantially reduce the most important physical climate risks that are material to that activity.

2. The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment with the following steps:

   (a) screening of the activity to identify which physical climate risks from the list in Appendix A to this Annex may affect the performance of the economic activity during its expected lifetime;

   (b) where the activity is assessed to be at risk from one or more of the physical climate risks listed in Appendix A to this Annex, a climate risk and vulnerability assessment to assess the materiality of the physical climate risks on the economic activity;

   (c) an assessment of adaptation solutions that can reduce the identified physical climate risk.

The climate risk and vulnerability assessment is proportionate to the scale of the activity and its expected lifespan, such that:

   (a) for activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using climate projections at the smallest appropriate scale;

   (b) for all other activities, the assessment is performed using the highest available resolution, state-of-the-art climate projections across the existing range of future scenarios[1] consistent with the expected lifetime of the activity, including, at least, 10 to 30 year climate projections scenarios for major investments.

3. The climate projections and assessment of impacts are based on best practice and

[1] Future scenarios include Intergovernmental Panel on Climate Change representative concentration pathways RCP2.6, RCP4.5, RCP6.0 and RCP8.5.

available guidance and take into account the state-of-the-art science for vulnerability and risk analysis and related methodologies in line with the most recent Intergovernmental Panel on Climate Change reports[2], scientific peer-reviewed publications and open source[3] or paying models.

4. The adaptation solutions implemented:

   (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of cultural heritage, of assets and of other economic activities;

   (b) favour nature-based solutions[4] or rely on blue or green infrastructure[5] to the extent possible;

   (c) are consistent with local, sectoral, regional or national adaptation plans and strategies;

   (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

   (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

5. The activity complies with the provisions laid down in the Euratom Treaty and the legislation adopted on its basis, in particular, Directive 2013/59/Euratom, Directive 2009/71/Euratom, and Directive 2011/70/Euratom as well as applicable Union environmental law adopted under Article 192 TFEU, in particular Directive 2011/92/EU and Directive 2000/60/EC.

6. The activity complies with national legislation that transposes Directive 2009/71/Euratom, including as regards the evaluation, through stress-tests, of the resilience of the Union nuclear power plants against extreme natural hazards, including earthquakes. Accordingly, the activity takes place on the territory of a Member State where the operator of a nuclear installation:

   (a) has submitted a demonstration of nuclear safety, whose scope and level of detail is commensurate with the potential magnitude and nature of the hazard relevant for the nuclear installation and its site (Article 6, point (b), of Directive 2009/71/Euratom).

   (b) has taken defence-in-depth measures to ensure, *inter alia*, that the impact of

---

2 Assessments Reports on Climate Change: Impacts, Adaptation and Vulnerability, published periodically by the Intergovernmental Panel on Climate Change (IPCC), the United Nations body for assessing the science related to climate change produces, https://www.ipcc.ch/reports/.

3 Such as Copernicus services managed by the European Commission.

4 Nature-based solutions are defined as 'solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions'. Therefore, nature-based solutions benefit biodiversity and support the delivery of a range of ecosystem services (version of [adoption date]: https://ec.europa.eu/info/research-and-innovation/research-area/environment/nature-based-solutions_en/).

5 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital, COM/2013/249 final.

extreme external natural and unintended man-made hazards is minimised (Article 8b(1), point (a), of Directive 2009/71/Euratom).

(c) has performed an appropriate site and installation-specific assessment when the operator concerned applies for a licence to construct or operate a NPP (Article 8c(a) of Directive 2009/71/Euratom).

The activity fulfils the requirements of Directive 2009/71/Euratom, supported by the latest international guidance through the IAEA and WENRA, contributing to increasing the resilience of the ability of new and existing NPPs to cope with extreme natural hazards, including floods and extreme weather conditions.

Do no significant harm ('DNSH')

(2) Climate change mitigation	The direct GHG emissions of the activity are lower than 270 g CO2e/kWh.
(3) Sustainable use and protection of water and marine resources	The activity complies with the criteria set out in Appendix B to this Annex. Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with stakeholders concerned. In order to limit thermal anomalies associated with the discharge of waste heat, operators of inland nuclear power plants utilising once-through wet cooling by taking water from a river or a lake shall control: (a) the maximum temperature of the recipient freshwater body after mixing, and (b) the maximum temperature difference between the discharged cooling water and the recipient freshwater body. The temperature control is implemented in accordance with the individual licence conditions for the specific operations, where applicable, or threshold values in line with the EU regulatory framework. The activity complies with the Industry Foundation Classes (IFC) standards. Nuclear activities operate in compliance with requirements on water intended for human consumption of Directive 2000/60/EC and of Directive 2013/51/Euratom laying down requirements for the protection of the health of the general public with regard to radioactive substances in water intended for human consumption.
(4) Transition to a circular economy	A plan for the management of both non-radioactive and radioactive waste is in place and ensures maximal reuse or recycling of such waste at end of life in accordance with the waste hierarchy, including through

	contractual agreements with waste management partners, the reflection in financial projections or the official project documentation. During operation and decommissioning, the amount of radioactive waste is minimised and the amount of free-release materials is maximised in accordance with Directive 2011/70/Euratom, and in compliance with the radiation protection requirements laid down in Directive 2013/59/Euratom. A financing scheme is in place to ensure adequate funding for all decommissioning activities and for the management of spent fuel and radioactive waste, in compliance with Directive 2011/70/Euratom and Recommendation 2006/851/Euratom. An Environmental Impact Assessment is completed prior to the construction of a nuclear power plant, in accordance with Directive 2011/92/EU. The required mitigation and compensatory measures are implemented. The relevant elements in this Section are covered by Member States' reports to the Commission in accordance with Article 14(1) of Directive 2011/70/Euratom.
(5) Pollution prevention and control	The activity complies with the criteria set out in Appendix C to this Annex. Non-radioactive emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants. No significant cross-media effects occur. For nuclear power plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex II, part 2, to Directive (EU) 2015/2193. Radioactive discharges to air, water bodies and ground (soil) comply with individual licence conditions for the specific operations, where applicable, and/or national threshold values in line with Directive 2013/51/Euratom and Directive 2013/59/Euratom. Spent fuel and radioactive waste is safely and responsibly managed in accordance with Directive 2011/70/Euratom and Directive 2013/59/Euratom. An adequate capacity of interim storage is available for the project, while national plans for disposal are in place to minimise the duration of interim storage, in compliance with the provision of Directive 2011/70/Euratom that considers radioactive waste storage, including long-term storage, as an interim solution, but not an alternative to disposal.
(6) Protection and restoration of biodiversity and	The activity complies with the criteria set out in Appendix D to this Annex.

ecosystems	An Environmental Impact Assessment is completed prior to the construction of a nuclear power plant, in accordance with Directive 2011/92/EU. The required mitigation and compensatory measures are implemented. For sites/operations located in or near biodiversity sensitive areas likely to have a significant effect on biodiversity sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment, where applicable, has been conducted and based on its conclusions the necessary mitigation measures are implemented. The sites/operations shall not be detrimental to the conservation status of any of the habitats or species present in protected areas.

4.27 Construction and safe operation of new nuclear power plants, for the generation of electricity and/or heat, including for hydrogen production, using best-available technologies

Description of the activity

Construction and safe operation of new nuclear installations, for which the construction permit has been issued by 2045 by Member States' competent authorities in accordance with applicable national law, to produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production (new nuclear installations or NNIs), as well as their safety upgrades.

The activity is classified under NACE codes D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No. 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

1. The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that substantially reduce the most important physical climate risks that are material to that activity.
2. The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment with the following steps:
   (a) screening of the activity to identify which physical climate risks from the list in Appendix A to this Annex may affect the performance of the economic activity during its expected lifetime;
   (b) where the activity is assessed to be at risk from one or more of the physical climate risks listed in Appendix A to this Annex, a climate risk and vulnerability assessment to assess the materiality of the physical climate risks on the economic activity;
   (c) an assessment of adaptation solutions that can reduce the identified physical climate risk.

The climate risk and vulnerability assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using climate projections at the smallest appropriate scale;

(b) for all other activities, the assessment is performed using the highest available resolution, state-of-the-art climate projections across the existing range of future scenarios[6] consistent with the expected lifetime of the activity, including, at least, 10 to 30 year climate projections scenarios for major investments.

3. The climate projections and assessment of impacts are based on best practice and available guidance and take into account the state-of-the-art science for vulnerability and risk analysis and related methodologies in line with the most recent Intergovernmental Panel on Climate Change reports[7], scientific peer-reviewed publications and open source[8] or paying models.

4. The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of cultural heritage, of assets and of other economic activities;

(b) favour nature-based solutions[9] or rely on blue or green infrastructure[10] to the extent possible;

(c) are consistent with local, sectoral, regional or national adaptation plans and strategies;

(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

5. The activity complies with the provisions laid down in the Euratom Treaty and the legislation adopted on its basis, in particular, Directive 2013/59/Euratom, Directive 2009/71/Euratom, and Directive 2011/70/Euratom as well as applicable Union environmental law adopted under Article 192 TFEU, in particular Directive 2011/92/EU

6 Future scenarios include Intergovernmental Panel on Climate Change representative concentration pathways RCP2.6, RCP4.5, RCP6.0 and RCP8.5.

7 Assessments Reports on Climate Change: Impacts, Adaptation and Vulnerability, published periodically by the Intergovernmental Panel on Climate Change (IPCC), the United Nations body for assessing the science related to climate change produces, https://www.ipcc.ch/reports/.

8 Such as Copernicus services managed by the European Commission.

9 Nature-based solutions are defined as 'solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions'. Therefore, nature-based solutions benefit biodiversity and support the delivery of a range of ecosystem services (version of [adoption date]: https://ec.europa.eu/info/research-and-innovation/research-area/environment/nature-based-solutions_en/).

10 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital, COM/2013/249 final.

and Directive 2000/60/EC.

6. The activity complies with national legislation that transposes Directive 2009/71/Euratom, including as regards the evaluation, through stress-tests, of the resilience of the Union nuclear power plants against extreme natural hazards, including earthquakes. Accordingly, the activity takes place on the territory of a Member State where the operator of a nuclear installation:

   (a) has submitted a demonstration of nuclear safety, whose scope and level of detail is commensurate with the potential magnitude and nature of the hazard relevant for the nuclear installation and its site (Article 6, point (b), of Directive 2009/71/Euratom).

   (b) has taken defence-in-depth measures to ensure, *inter alia*, that the impact of extreme external natural and unintended man-made hazards is minimised (Article 8b(1), point (a), of Directive 2009/71/Euratom).

   (c) has performed an appropriate site and installation-specific assessment when the operator concerned applies for a licence to construct or operate a NPP (Article 8c(a) of Directive 2009/71/Euratom).

The activity fulfils the requirements of Directive 2009/71/Euratom, supported by the latest international guidance through the IAEA and WENRA, contributing to increasing the resilience of the ability of new and existing NPPs to cope with extreme natural hazards, including floods and extreme weather conditions.

Do no significant harm ('DNSH')

(2) Climate change mitigation	The direct GHG emissions of the activity are lower than 270 g CO2e/kWh.
(3) Sustainable use and protection of water and marine resources	The activity complies with the criteria set out in Appendix B to this Annex. Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with stakeholders concerned. In order to limit thermal anomalies associated with the discharge of waste heat, operators of inland nuclear power plants utilising once-through wet cooling by taking water from a river or a lake shall control: (a) the maximum temperature of the recipient freshwater body after mixing, and (b) the maximum temperature difference between the discharged cooling water and the recipient freshwater body. The temperature control is implemented in accordance with the individual licence conditions for the specific operations, where

	applicable, and/or threshold values in line with the EU regulatory framework. The activity complies with the Industry Foundation Classes (IFC) standards. Nuclear activities operate in compliance with requirements on water intended for human consumption of Directive 2000/60/EC and of Directive 2013/51/Euratom laying down requirements for the protection of the health of the general public with regard to radioactive substances in water intended for human consumption.
(4) Transition to a circular economy	A plan for the management of both non-radioactive and radioactive waste is in place and ensures maximal reuse or recycling of such waste at end of life in accordance with the waste hierarchy, including through contractual agreements with waste management partners, the reflection in financial projections or the official project documentation. During operation and decommissioning, the amount of radioactive waste is minimised and the amount of free-release materials is maximised in accordance with Directive 2011/70/Euratom, and in compliance with the radiation protection requirements laid down in Directive 2013/59/Euratom. A financing scheme is in place to ensure adequate funding for all decommissioning activities and for the management of spent fuel and radioactive waste, in compliance with Directive 2011/70/Euratom and Recommendation 2006/851/Euratom. An Environmental Impact Assessment is completed prior to the construction of a nuclear power plant, in accordance with Directive 2011/92/EU. The required mitigation and compensatory measures are implemented. The relevant elements in this Section are covered by Member States' reports to the Commission in accordance with Article 14(1) of Directive 2011/70/Euratom.
(5) Pollution prevention and control	The activity complies with the criteria set out in Appendix C to this Annex. Non-radioactive emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants. No significant cross-media effects occur. For nuclear power plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex II, part 2, to Directive (EU) 2015/2193. Radioactive discharges to air, water bodies and ground (soil) comply with individual licence conditions for the specific operations, where applicable, and/or national threshold values in line with Directive

	2013/51/Euratom and Directive 2013/59/Euratom. Spent fuel and radioactive waste is safely and responsibly managed in accordance with Directive 2011/70/Euratom and Directive 2013/59/Euratom. An adequate capacity of interim storage is available for the project, while national plans for disposal are in place to minimise the duration of interim storage, in compliance with the provision of Directive 2011/70/Euratom that considers radioactive waste storage, including long-term storage, as an interim solution, but not an alternative to disposal.
(6) Protection and restoration of biodiversity and ecosystems	The activity complies with the criteria set out in Appendix D to this Annex. An Environmental Impact Assessment is completed prior to the construction of a nuclear power plant, in accordance with Directive 2011/92/EU. The required mitigation and compensatory measures are implemented. For sites/operations located in or near biodiversity sensitive areas likely to have a significant effect on biodiversity sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment, where applicable, has been conducted and based on its conclusions the necessary mitigation measures are implemented. The sites/operations shall not be detrimental to the conservation status of any of the habitats or species present in protected areas.

4.28 Electricity generation from nuclear energy in existing installations

Description of the activity

Modification of existing nuclear installations for the purposes of extension, authorised by Member States' competent authorities by 2040 in accordance with applicable national law, of the service time of safe operation of nuclear installations that produce electricity or heat from nuclear energy ('nuclear power plants' or 'NPPs').

The activity is classified under NACE codes D35.11 and F42.2 in accordance with the statistical classification of economic activities established by Regulation (EC) No. 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

1. The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that substantially reduce the most important physical climate risks that are material to that activity.

2. The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment with the following steps:

   (a) screening of the activity to identify which physical climate risks from the list in Appendix A to this Annex may affect the performance of the economic activity during its expected lifetime;

   (b) where the activity is assessed to be at risk from one or more of the physical climate risks listed in Appendix A to this Annex, a climate risk and vulnerability assessment to assess the materiality of the physical climate risks on the economic activity;

   (c) an assessment of adaptation solutions that can reduce the identified physical climate risk.

The climate risk and vulnerability assessment is proportionate to the scale of the activity and its expected lifespan, such that:

   (a) for activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using climate projections at the smallest appropriate scale;

   (b) for all other activities, the assessment is performed using the highest available resolution, state-of-the-art climate projections across the existing range of future scenarios[11] consistent with the expected lifetime of the activity, including, at least, 10 to 30 year climate projections scenarios for major investments.

3. The climate projections and assessment of impacts are based on best practice and available guidance and take into account the state-of-the-art science for vulnerability and risk analysis and related methodologies in line with the most recent Intergovernmental Panel on Climate Change reports[12], scientific peer-reviewed publications and open source[13] or paying models.

4. The adaptation solutions implemented:

   (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of cultural heritage, of assets and of other economic activities;

   (b) favour nature-based solutions[14] or rely on blue or green infrastructure[15] to the extent possible;

---

11 Future scenarios include Intergovernmental Panel on Climate Change representative concentration pathways RCP2.6, RCP4.5, RCP6.0 and RCP8.5.

12 Assessments Reports on Climate Change: Impacts, Adaptation and Vulnerability, published periodically by the Intergovernmental Panel on Climate Change (IPCC), the United Nations body for assessing the science related to climate change produces, https://www.ipcc.ch/reports/.

13 Such as Copernicus services managed by the European Commission.

14 Nature-based solutions are defined as 'solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions'. Therefore, nature-based solutions benefit biodiversity and support the delivery of a range of ecosystem

(c) are consistent with local, sectoral, regional or national adaptation plans and strategies;

(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

5. The activity complies with the provisions laid down in the Euratom Treaty and the legislation adopted on its basis, in particular, Directive 2013/59/Euratom, Directive 2009/71/Euratom, and Directive 2011/70/Euratom as well as applicable Union environmental law adopted under Article 192 TFEU, in particular Directive 2011/92/EU and Directive 2000/60/EC.

6. The activity complies with national legislation that transposes Directive 2009/71/Euratom, including as regards the evaluation, through stress-tests, of the resilience of the Union nuclear power plants against extreme natural hazards, including earthquakes. Accordingly, the activity takes place on the territory of a Member State where the operator of a nuclear installation:

(a) has submitted a demonstration of nuclear safety, whose scope and level of detail is commensurate with the potential magnitude and nature of the hazard relevant for the nuclear installation and its site (Article 6, point (b), of Directive 2009/71/Euratom).

(b) has taken defence-in-depth measures to ensure, *inter alia*, that the impact of extreme external natural and unintended man-made hazards is minimised (Article 8b(1), point (a), of Directive 2009/71/Euratom).

(c) has performed an appropriate site and installation-specific assessment when the operator concerned applies for a licence to construct or operate a NPP (Article 8c(a) of Directive 2009/71/Euratom).

The activity fulfils the requirements of Directive 2009/71/Euratom, supported by the latest international guidance through the IAEA and WENRA, contributing to increasing the resilience of the ability of new and existing NPPs to cope with extreme natural hazards, including floods and extreme weather conditions.

Do no significant harm ('DNSH')	
(2) Climate change mitigation	The direct GHG emissions of the activity are lower than 270 g CO2e/kWh.

services (version of [adoption date]: https://ec.europa.eu/info/research-and-innovation/research-area/environment/nature-based-solutions_en/).

[15] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital, COM/2013/249 final.

(3) Sustainable use and protection of water and marine resources	The activity complies with the criteria set out in Appendix B to this Annex. Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with stakeholders concerned. In order to limit thermal anomalies associated with the discharge of waste heat, operators of inland nuclear power plants utilising once-through wet cooling by taking water from a river or a lake shall control: (a) the maximum temperature of the recipient freshwater body after mixing, and (b) the maximum temperature difference between the discharged cooling water and the recipient freshwater body. The temperature control is implemented in accordance with the individual licence conditions for the specific operations, where applicable, or threshold values in line with the Union law. The activity complies with the Industry Foundation Classes (IFC) standards. Nuclear activities operate in compliance with requirements on water intended for human consumption of Directive 2000/60/EC and of Directive 2013/51/Euratom laying down requirements for the protection of the health of the general public with regard to radioactive substances in water intended for human consumption.
(4) Transition to a circular economy	A plan for the management of both non-radioactive and radioactive waste is in place and ensures maximal reuse or recycling of such waste at end of life in accordance with the waste hierarchy, including through contractual agreements with waste management partners, the reflection in financial projections or the official project documentation. During operation and decommissioning, the amount of radioactive waste is minimised and the amount of free-release materials is maximised in accordance with Directive 2011/70/Euratom, and in compliance with the radiation protection requirements laid down in Directive 2013/59/Euratom. A financing scheme is in place to ensure adequate funding for all decommissioning activities and for the management of spent fuel and radioactive waste, in compliance with Directive 2011/70/Euratom and Recommendation 2006/851/Euratom. An Environmental Impact Assessment is completed prior to the construction of a nuclear power plant, in accordance with Directive 2011/92/EU. The required mitigation and compensatory measures are implemented. The relevant elements in this Section are covered by Member States' reports to the Commission in accordance with Article 14(1) of

	Directive 2011/70/Euratom.
(5) Pollution prevention and control	The activity complies with the criteria set out in Appendix C to this Annex. Non-radioactive emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants. No significant cross-media effects occur. For nuclear power plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex II, part 2, to Directive (EU) 2015/2193. Radioactive discharges to air, water bodies and ground (soil) comply with individual licence conditions for the specific operations, where applicable, and/or national threshold values in line with Directive 2013/51/Euratom and Directive 2013/59/Euratom). Spent fuel and radioactive waste is safely and responsibly managed in accordance with Directive 2011/70/Euratom and Directive 2013/59/Euratom. An adequate capacity of interim storage is available for the project, while national plans for disposal are in place to minimize the duration of interim storage, in compliance with the provision of Directive 2011/70/Euratom that considers radioactive waste storage, including long-term storage, as an interim solution, but not an alternative to disposal.
(6) Protection and restoration of biodiversity and ecosystems	The activity complies with the criteria set out in Appendix D to this Annex. An Environmental Impact Assessment is completed prior to the construction of a nuclear power plant, in accordance with Directive 2011/92/EU. The required mitigation and compensatory measures are implemented. For sites/operations located in or near biodiversity sensitive areas likely to have a significant effect on biodiversity sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment, where applicable, has been conducted and based on its conclusions the necessary mitigation measures are implemented. The sites/operations shall not be detrimental to the conservation status of any of the habitats or species present in protected areas.

4.29. Electricity generation from fossil gaseous fuels

Description of the activity

Construction or operation of electricity generation facilities that produce electricity using fossil gaseous fuels that meet the criteria in point 1(a) of Section 4.29 of Annex I. This activity does not include electricity generation from the exclusive use of renewable non-fossil gaseous and liquid fuels referred to in Section 4.7 of Annex I and biogas and bio-liquid fuels referred to in Section 4.8 of Annex I.

The economic activities in this category may be associated with several NACE codes, notably D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No. 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

1. The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that substantially reduce the most important physical climate risks that are material to that activity.

2. The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment with the following steps:

   (a) screening of the activity to identify which physical climate risks from the list in Appendix A to this Annex may affect the performance of the economic activity during its expected lifetime;

   (b) where the activity is assessed to be at risk from one or more of the physical climate risks listed in Appendix A to this Annex, a climate risk and vulnerability assessment to assess the materiality of the physical climate risks on the economic activity;

   (c) an assessment of adaptation solutions that can reduce the identified physical climate risk.

The climate risk and vulnerability assessment is proportionate to the scale of the activity and its expected lifespan, such that:

   (a) for activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using climate projections at the smallest appropriate scale;

   (b) for all other activities, the assessment is performed using the highest available resolution, state-of-the-art climate projections across the existing range of future scenarios[16] consistent with the expected lifetime of the activity, including, at least, 10 to 30 year climate projections scenarios for major investments.

3. The climate projections and assessment of impacts are based on best practice and available guidance and take into account the state-of-the-art science for vulnerability

[16] Future scenarios include Intergovernmental Panel on Climate Change representative concentration pathways RCP2.6, RCP4.5, RCP6.0 and RCP8.5.

and risk analysis and related methodologies in line with the most recent Intergovernmental Panel on Climate Change reports[17], scientific peer-reviewed publications and open source[18] or paying models.

4. The adaptation solutions implemented:

   (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of cultural heritage, of assets and of other economic activities;

   (b) favour nature-based solutions[19] or rely on blue or green infrastructure[20] to the extent possible;

   (c) are consistent with local, sectoral, regional or national adaptation plans and strategies;

   (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

   (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(2) Climate change mitigation	The direct GHG emissions of the activity are lower than 270 g CO2e/kWh.
(3) Sustainable use and protection of water and marine resources	The activity complies with the criteria set out in Appendix B to this Annex.
(4) Transition to a circular economy	N/A

[17] Assessments Reports on Climate Change: Impacts, Adaptation and Vulnerability, published periodically by the Intergovernmental Panel on Climate Change (IPCC), the United Nations body for assessing the science related to climate change produces, https://www.ipcc.ch/reports/.

[18] Such as Copernicus services managed by the European Commission.

[19] Nature-based solutions are defined as 'solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions'. Therefore, nature-based solutions benefit biodiversity and support the delivery of a range of ecosystem services (version of [adoption date]: https://ec.europa.eu/info/research-and-innovation/research-area/environment/nature-based-solutions_en/).

[20] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital, COM/2013/249 final.

(5) Pollution prevention and control	The activity complies with the criteria set out in Appendix C to this Annex. Emissions are within or lower than the emission levels associated with ranges of the best available techniques (BAT-AEL) ranges set out in the latest relevant best available techniques (BAT) conclusions, including the best available techniques (BAT) conclusions for large combustion plants[21]. No significant cross-media effects occur. For combustion plants with thermal input greater than 1 MW but below the applicable thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out[22] in Annex II, part 2, to Directive (EU) 2015/2193.
(6) Protection and restoration of biodiversity and ecosystems	The activity complies with the criteria set out in Appendix D to this Annex.

4.30. High-efficiency co- generation of heat/cool and power from fossil gaseous fuels

Description of the activity

Construction, refurbishment and operation of combined heat/cool and power generation facilities using fossil gaseous fuels that meet the criteria in point 1(a) of Section 4.30 of Annex I. This activity does not include high-efficiency co-generation of heat/cool and power from the exclusive use of renewable non-fossil gaseous and liquid fuels referred to in Section 4.19 of Annex I and biogas and bio-liquid fuels referred to in Section 4.20 of Annex I.

The economic activities in this category may be associated with NACE codes D35.11 and D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No. 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

1. The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that substantially reduce the most important physical climate risks that are material to that activity.
2. The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and

[21] Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants (OJ L 212, 17.8.2017, p. 1).

[22] Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants (OJ L 212, 17.8.2017, p. 1).

vulnerability assessment with the following steps:

(a) screening of the activity to identify which physical climate risks from the list in Appendix A to this Annex may affect the performance of the economic activity during its expected lifetime;

(b) where the activity is assessed to be at risk from one or more of the physical climate risks listed in Appendix A to this Annex, a climate risk and vulnerability assessment to assess the materiality of the physical climate risks on the economic activity;

(c) an assessment of adaptation solutions that can reduce the identified physical climate risk.

The climate risk and vulnerability assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using climate projections at the smallest appropriate scale;

(b) for all other activities, the assessment is performed using the highest available resolution, state-of-the-art climate projections across the existing range of future scenarios[23] consistent with the expected lifetime of the activity, including, at least, 10 to 30 year climate projections scenarios for major investments.

3. The climate projections and assessment of impacts are based on best practice and available guidance and take into account the state-of-the-art science for vulnerability and risk analysis and related methodologies in line with the most recent Intergovernmental Panel on Climate Change reports[24], scientific peer-reviewed publications and open source[25] or paying models.

4. The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of cultural heritage, of assets and of other economic activities;

(b) favour nature-based solutions[26] or rely on blue or green infrastructure[27] to the extent possible;

(c) are consistent with local, sectoral, regional or national adaptation plans and

[23] Future scenarios include Intergovernmental Panel on Climate Change representative concentration pathways RCP2.6, RCP4.5, RCP6.0 and RCP8.5.

[24] Assessments Reports on Climate Change: Impacts, Adaptation and Vulnerability, published periodically by the Intergovernmental Panel on Climate Change (IPCC), the United Nations body for assessing the science related to climate change produces, https://www.ipcc.ch/reports/.

[25] Such as Copernicus services managed by the European Commission.

[26] Nature-based solutions are defined as 'solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions'. Therefore, nature-based solutions benefit biodiversity and support the delivery of a range of ecosystem services (version of [adoption date]: https://ec.europa.eu/info/research-and-innovation/research-area/environment/nature-based-solutions_en/).

[27] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital, COM/2013/249 final.

strategies;

(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(2) Climate change mitigation	The direct GHG emissions of the activity are lower than 270 g CO2e/kWh.
(3) Sustainable use and protection of water and marine resources	The activity complies with the criteria set out in Appendix B to this Annex.
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	The activity complies with the criteria set out in Appendix C to this Annex. Emissions are within or lower than the emission levels associated with the ranges of the best available techniques (BAT-AEL) set out in the latest relevant best available techniques (BAT) conclusions, including the best available techniques (BAT) conclusions for large combustion plants. No significant cross-media effects occur. For combustion plants with thermal input greater than 1 MW but below the applicable thresholds for the BAT conclusions for large combustion plants, emissions are below the emission limit values set out in Annex II, part 2, to Directive (EU) 2015/2193.
(6) Protection and restoration of biodiversity and ecosystems	The activity complies with the criteria set out in Appendix D to this Annex.

4.31. Production of heat/cool from fossil gaseous fuels in an efficient district heating and cooling system

Description of the activity

Construction, refurbishment and operation of heat generation facilities that produce heat/cool using fossil gaseous fuels connected to efficient district heating and cooling within the meaning of Article 2(41) of Directive 2012/27/EU that meet the criteria in point 1(a) of Section 4.31 of Annex I. This activity does not include production of heat/cool from in an efficient district heating from the exclusive use of renewable non-fossil gaseous and liquid fuels referred to in Section 4.23 of Annex I and biogas and bio-liquid fuels referred to in Section 4.24 of Annex I.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

1. The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that substantially reduce the most important physical climate risks that are material to that activity.
2. The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment with the following steps:
   (a) screening of the activity to identify which physical climate risks from the list in Appendix A to this Annex may affect the performance of the economic activity during its expected lifetime;
   (b) where the activity is assessed to be at risk from one or more of the physical climate risks listed in Appendix A to this Annex, a climate risk and vulnerability assessment to assess the materiality of the physical climate risks on the economic activity;
   (c) an assessment of adaptation solutions that can reduce the identified physical climate risk.

The climate risk and vulnerability assessment is proportionate to the scale of the activity and its expected lifespan, such that:

   (a) for activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using climate projections at the smallest appropriate scale;
   (b) for all other activities, the assessment is performed using the highest available resolution, state-of-the-art climate projections across the existing range of future scenarios[28] consistent with the expected lifetime of the activity, including, at least, 10 to 30 year climate projections scenarios for major investments.

3. The climate projections and assessment of impacts are based on best practice and available guidance and take into account the state-of-the-art science for vulnerability

[28] Future scenarios include Intergovernmental Panel on Climate Change representative concentration pathways RCP2.6, RCP4.5, RCP6.0 and RCP8.5.

and risk analysis and related methodologies in line with the most recent Intergovernmental Panel on Climate Change reports[29], scientific peer-reviewed publications and open source[30] or paying models.

4. The adaptation solutions implemented:

   (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of cultural heritage, of assets and of other economic activities;

   (b) favour nature-based solutions[31] or rely on blue or green infrastructure[32] to the extent possible;

   (c) are consistent with local, sectoral, regional or national adaptation plans and strategies;

   (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

   (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(2) Climate change mitigation	The direct GHG emissions of the activity are lower than 270 g CO2e/kWh.
(3) Sustainable use and protection of water and marine resources	The activity complies with the criteria set out in Appendix B to this Annex.
(4) Transition to a	N/A

29 Assessments Reports on Climate Change: Impacts, Adaptation and Vulnerability, published periodically by the Intergovernmental Panel on Climate Change (IPCC), the United Nations body for assessing the science related to climate change produces, https://www.ipcc.ch/reports/.

30 Such as Copernicus services managed by the European Commission.

31 Nature-based solutions are defined as 'solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions'. Therefore, nature-based solutions benefit biodiversity and support the delivery of a range of ecosystem services (version of [adoption date]: https://ec.europa.eu/info/research-and-innovation/research-area/environment/nature-based-solutions_en/).

32 See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital, COM/2013/249 final.

circular economy	
(5) Pollution prevention and control	The activity complies with the criteria set out in Appendix C to this Annex. Emissions are within or lower than the emission levels associated with the ranges of the best available techniques (BAT-AEL) set out in the latest relevant best available techniques (BAT) conclusions, including the best available techniques (BAT) conclusions for large combustion plants. No significant cross-media effects occur. For combustion plants with thermal input greater than 1 MW but below the applicable thresholds for the BAT conclusions for large combustion plants, emissions are below the emission limit values set out in Annex II, part 2, to Directive (EU) 2015/2193.
(6) Protection and restoration of biodiversity and ecosystems	The activity complies with the criteria set out in Appendix D to this Annex.

”