



EUROPEAN COMMISSION

Directorate-General for Financial Stability, Financial Services and Capital Markets Union
Directorate-General for Environment

FISMA B2 Sustainable Finance
ENV F1 Sustainable Development Goals, Green Finance & Economic Analysis

SCIENTIFIC COMMITTEE ON HEALTH, ENVIRONMENTAL AND EMERGING RISKS (SCHEER)

Request for a scientific opinion on

"A technical assessment by JRC on nuclear energy under the ‘do no significant harm’ criterion of the taxonomy regulation"

Commission Departments requesting the Opinion: Directorate-General for Financial Stability, Financial Services and Capital Markets Union and Directorate-General for Environment

1. Background and Rationale

Regulation (EU) 2020/8521 (‘Taxonomy Regulation’) establishes a framework for the development of an EU classification system (‘EU Taxonomy’) of environmentally sustainable economic activities for investment purposes. While the Regulation provides the general framework for an economic activity to qualify as environmentally sustainable, it empowers the European Commission to set the actual performance criteria (technical screening criteria) to determine under what conditions an economic activity qualifies as environmentally sustainable.

The Regulation determines that in order to qualify as environmentally sustainable, an economic activity must: (1) make a substantial contribution to one of six environmental objectives¹; (2) do no significant harm (DNSH) to the other five objectives; (3) meet minimum social and governance safeguards; and (4) comply with certain technical screening criteria, specifying the conditions of ‘substantial contribution’ and DNSH for economic activities that are selected and addressed by the taxonomy.

While there are indirect references in the Regulation to the issue of nuclear energy (including to nuclear waste), co-legislators ultimately left the assessment of nuclear energy to the Commission, as part of its work on the delegated acts establishing the technical screening criteria. It is important to underline that the non-inclusion of a sector or activity in the Taxonomy does not in any way preclude on-going or future financial investment in the sector (e.g. in the case of nuclear, for improving safety of or decommissioning existing nuclear plants). It also does not categorise the sector or activity as ‘brown’; it just means the financial sector cannot include investments in the sector/activity as counting towards the proportion of

¹Climate change mitigation, climate change adaptation, sustainable use and protection of water and marine resources, transition to the circular economy, pollution prevention and control, protection and restoration of biodiversity and ecosystems

investments with the financial product that meet the taxonomy criteria and, thus, labelled “green”.

A Technical Expert Group on Sustainable Finance (TEG) was tasked with advising the Commission on the technical screening criteria for activities substantially contributing to the climate change mitigation and adaptation objectives. As part of this task, the TEG undertook an analysis of the impact of nuclear energy on the other four environmental objectives that are addressed by the taxonomy. However, the TEG considered that *“it was not possible for TEG, nor its members, to conclude that the nuclear energy value chain does not cause significant harm to other environmental objectives on the timescales in question”* and indicated further assessment of the ‘do no significant harm’ aspects of nuclear energy would be necessary. With the taxonomy likely to act as guiding framework for significant proportions of the (short-term) funding that will be disbursed under the updated MFF and Next Generation EU, the issue has acquired additional importance and urgency.

The Joint Research Centre (JRC) has been invited to carry out such analysis and to draft a technical assessment report. The aim is to analyse the DNSH aspects of nuclear energy, assessing its environmental risks with respect to the taxonomy environmental objectives with particular attention to water, circular economy, pollution prevention, and ecosystems/biodiversity objectives. This should support the Commission’s decision if nuclear energy can meet the criteria under the Taxonomy Regulation, and if so, what DNSH technical screening criteria could be associated (full terms of reference of the JRC mandate attached in annex).

Specifically, the JRC has been asked to:

A) Conduct a review of the state of the art to assess nuclear energy generation under the “do no significant harm” (DNSH) criterion. The assessment should consider the effects of the whole nuclear life cycle on the existing and potential environmental impacts across all objectives. As per the TEG recommendations, special attention should be given to impacts on the objectives relating to circular economy, pollution and biodiversity criteria; but ensuring the protection of water and marine resources is also very important and should be considered.

B) Conduct a specific assessment on the current status and perspectives of long-term management and disposal of nuclear waste. The final comments of the TEG rely among other things on the consideration that there is no robust evidence regarding the DNSH criteria concerning high-level radioactive waste.

The JRC technical assessment will gather and present evidence that helps evaluating the existing problems and the pros and cons of existing and proposed solutions, with a specific focus on the risks and nature of potential environmental impacts over the timescales commensurate with long-term nuclear waste management, treatment and storage.

The period of execution of the assessment by the JRC is six months (to be completed by end-December 2020). This timetable is indicative but a draft report should be prepared at the latest by 15 November 2020. The JRC technical report will be reviewed by radiation protection and waste experts appointed by the Scientific and Technical Committee under Article 31 of the Euratom Treaty, who will be invited to provide their opinion on JRC technical report.

However, it was deemed important to also seek an opinion on the JRC technical report from an independent environmental expert group or scientific committee. Having reviewed available expertise, we believe SCHEER is best suited to this task.

2. Terms of reference

Within this process, SCHEER is asked to review the JRC technical assessment report and provide an independent opinion (1) on the findings and recommendations of the report and (2) on the completeness and robustness of the assessment that underpins them.

In doing so, SCHEER should consider, among other things, the following key questions:

- To comment on the level of uncertainty and the level of scientific consensus with respect to the report's findings, in particular with a view to the precautionary principle enshrined in Article 191 TFEU (and referred to in Art.19.1(f) of the Taxonomy Regulation).
- Are there existing gaps in scientific knowledge and data that could affect the determination of the risks addressed by the report?
- Are the described 'residual' risks (i.e. the risk that remains after implementation of the identified mitigating measures) plausible when considering the timescales involved (e.g. uncertainty relating to the practical feasibility of future technologies) and the influence of the discount factor use²?

The review is expected to require a broad range of expertise, including on: risk assessment, pollution prevention, biodiversity/ecosystem protection, ensuring the protection of water and marine resources, circular economy, and long term high-level radioactive waste treatment and storage technologies and risks.

3. Deadline

SCHEER is asked to provide its opinion 3 months after receiving the final JRC report.

² Sensitivity to the discount rate grows as benefits and costs stretch further into the future. Thus, the effect any discount rate(s) that may be applied and the implications (e.g. on net present value estimates of future costs and benefits) are important to consider when looking at long time horizons.

Annex

Terms of Reference for a technical assessment implemented by JRC on nuclear energy under the ‘do no significant harm’ criterion



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