

## INCEPTION IMPACT ASSESSMENT

Inception Impact Assessments aim to inform citizens and stakeholders about the Commission's plans in order to allow them to provide feedback on the intended initiative and to participate effectively in future consultation activities. Citizens and stakeholders are in particular invited to provide views on the Commission's understanding of the problem and possible solutions and to make available any relevant information that they may have, including on possible impacts of the different options.

<b>TITLE OF THE INITIATIVE</b>	Revision of Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources
<b>LEAD DG (RESPONSIBLE UNIT)</b>	DG ENER Unit C1 (PLAN/2020/7536)
<b>LIKELY TYPE OF INITIATIVE</b>	Legislative proposal
<b>INDICATIVE PLANNING</b>	Q2 2021
<b>ADDITIONAL INFORMATION</b>	—

**The Inception Impact Assessment is provided for information purposes only. It does not prejudge the final decision of the Commission on whether this initiative will be pursued or on its final content. All elements of the initiative described by the Inception impact assessment, including its timing, are subject to change.**

### A. Context, Problem definition and Subsidiarity Check

#### Context

With the energy sector responsible for more than 75% of the EU greenhouse gas emissions (GHG), renewable energy has a key role in cost-effectively tackling climate change, while enhancing energy security, creating growth and jobs, reducing pollution and strengthening EU industrial and technological leadership and independence. All these elements are at the core of the European Green Deal<sup>1</sup> (EGD) and the post-COVID-19 Economic Recovery Package<sup>2</sup>. Initiatives under the recovery plan, including the new temporary recovery instrument called Next Generation EU as well as the revamped multiannual financial framework 2021-2027 will aim to support investments and reforms linked to the green transition, such as rolling out sustainable renewable energy projects, especially wind, solar and kick-starting a hydrogen economy in Europe.

In the EGD, the Commission announced it would present an impact assessed plan to increase the 2030 GHG reduction target from 40% to at least 50% towards 55% compared with 1990 levels in a responsible way, in view of the objective of climate-neutrality by 2050. This was endorsed by the European Council in December 2019 and is reflected in the proposal for a European Climate Law<sup>3</sup>. The Commission has committed itself to carrying out an impact assessment on how this increased GHG reduction ambition for 2030 can be sustainably achieved. As part of this effort towards increased ambition, the EGD announced the review and, where necessary, a revision of the energy and climate legislation including the 2018 Renewable Energy Directive ("REDII")<sup>4</sup>. By September 2020 the Commission will present its 2030 Climate Target Plan, which will indicate the extent to which the 2030 level of ambition for renewable energy could be increased to support the higher ambition for GHG reductions and may point at specific sectors and specific renewables-related measures that could deliver on this higher ambition.

Furthermore, under the EGD several initiatives would likely require a review of elements of EU renewable energy policy to ensure they are fit-for-purpose, effectively contribute to the cost-effective deployment of renewable energy sources, including renewable electricity, renewable heat and cold and renewable fuels such as advanced biofuels, renewable synthetic liquid and gaseous fuels and green hydrogen, and fulfil the Green Oath to do no harm, in particular by preserving biodiversity and reducing air pollution. This is the case of the Energy System Integration Strategy<sup>5</sup> and the Hydrogen Strategy<sup>6</sup> adopted on 8 July, which propose actions that could require the modification of REDII, and of the EU Biodiversity Strategy for 2030 adopted on 20 May 2020. It will also be the case for future energy-related initiatives such as the Offshore Renewable Energy Strategy, the Renovation Wave

<sup>1</sup> COM(2019) 640 final.

<sup>2</sup> [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_20\\_940](https://ec.europa.eu/commission/presscorner/detail/en/ip_20_940)

<sup>3</sup> COM/2020/80 final, adopted on 4 March 2020.

<sup>4</sup> Directive 2018/2001.

<sup>5</sup> COM(2020) 299 final.

<sup>6</sup> COM(2020) 301 final.

initiative and the Methane Strategy.

The Commission will also assess the National Energy and Climate Plans (NECPs), submitted in accordance with the Governance Regulation<sup>7</sup>, and in particular whether an ‘ambition gap’ remains to collectively achieve the renewable energy target for 2030 (of at least 32%).

Additionally, Article 3 of REDII provides for the Commission to review (upwards) the 2030 target of at least 32% renewables and this initiative will also fulfil that obligation.

Therefore, the Commission will review, and if necessary, put forward a legislative proposal to revise REDII on the basis of the strategies already adopted or announced, the outcome of the 2030 Climate Target Plan, and the assessment of the NECPs. This work will be closely coordinated with other initiatives emanating from the EGD and outlined in its Annex<sup>8</sup>.

No REFIT evaluation is planned since the Commission already did one for Directive 2009/28/EC (RED), which led to the adoption of REDII, which entered into force in December 2018.

#### **Problem the initiative aims to tackle**

In December 2019, the Commission presented the EGD as the new European Growth Strategy setting out a clear agenda to make Europe the first climate neutral continent in the world by 2050. This involves fundamental changes in many areas, including the energy sector such as an accelerated and cost-effective deployment of sustainable renewable energy, including renewable hydrogen, in line with the technology trajectories highlighted in the Commission’s 2018 Long-Term strategic vision “A Clean Planet for All”<sup>9</sup>.

Furthermore, being often abundantly available within the EU and cost-competitive with fossil fuels, renewable energy can help make our energy supply more affordable, thereby reducing energy poverty, and secure by reducing the EU’s dependency on imported fossil fuels. It also has the potential to provide a range of new jobs, create new industrial opportunities and contribute to economic growth and to keeping EU technological leadership. This is especially relevant due to the post-COVID-19 economic effects.

To date, Europe has made significant progress in decarbonising its electricity production through renewables. However progress has been slower for other energy carriers (gas, liquid fuels, heat), and fossil fuels remain the main fuel used in end-use sectors ie transport, industry and in buildings. To meet the Union’s 2030 and 2050 climate objectives, while also guaranteeing sustainable, secure and affordable energy for consumers, there is a need to ensure that all sectors fully contribute to decarbonisation.

The main focus might therefore be on those sectors (transport, heating and cooling in industry and buildings) where renewables have not been deployed as successfully as in the electricity sector, in line with the Energy System Integration and Hydrogen strategies, as well as Renovation Wave initiative.

In addition, as foreseen by the EGD, the Commission will present an impact assessed plan to increase the climate target for 2030, which may require revising the renewables targets in REDII.

This initiative will also take into account the results of the assessment of the NECPs as well as potential actions that may be included in other initiatives relevant to energy and fuels policy developments to be adopted in the coming months.

#### **Basis for EU intervention (legal basis and subsidiarity check)**

The legal basis for this initiative is Article 194(2), and if appropriate Article 192(1), of the Treaty on the Functioning of the European Union. It is an initiative in an area of energy, which is a shared competence between the EU and Member States.

This initiative will be carried out in full respect of the principle of subsidiarity.

Achieving climate neutrality is by its very nature a trans-boundary challenge that cannot be solved by national or local action alone. Furthermore, a cost-efficient accelerated development of sustainable renewable energy requires a coordinated approach in order to fully exploit the advantages of economies of scale and technological cooperation in Europe. EU action on renewable energy is necessary because it is more efficient and effective than individual Member States’ actions, avoiding a fragmented approach by addressing the transition of the European energy system in a coordinated way, ensuring net reduction of greenhouse gas emissions and pollution, protecting biodiversity and harnessing the benefits of the internal market and giving investors certainty in an EU-wide regulatory framework. The EU common framework and target leaves discretion for Member States to set concrete policies and actions that contribute to the national and EU targets while respecting their right to decide their energy mix.

## **B. Objectives and Policy options**

The **overall objective** is to ensure that renewable energy sufficiently contributes to the achievement of the higher

<sup>7</sup> Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action

<sup>8</sup> [https://ec.europa.eu/info/files/annex-roadmap-and-key-actions\\_en](https://ec.europa.eu/info/files/annex-roadmap-and-key-actions_en)

<sup>9</sup> COM (2018) 773 final.

EU climate ambition in line with the ongoing assessment underpinning the Climate Target Plan for 2030.

In addition, the revision of REDII aims to translate into legal measures, where appropriate, some of the actions proposed in several initiatives, strategies and plans that have been adopted or will be adopted under the EGD.

This is a fundamental step if the EU wants to reduce emissions to the extent required by its climate-neutrality goal for 2050, while promoting resource-efficient economic growth, job creation, technological leadership, pollution reduction and biodiversity preservation.

This initiative will also ensure synergies with other legislation that will be reviewed, such as the Energy Efficiency Directive. Both pieces of legislation have a common goal of allowing a faster and efficient integration of renewables in all end uses and increasing flexibility, sustainability and energy and resource efficiency.

This initiative will have the following **specific objectives**:

- Possible upward review of the minimum 32% target for renewable energy set at EU level, including reviewing the level of ambition of sector specific measures, in line with the impact assessment of the 2030 Climate Target Plan.

- Consideration of elements emanating from the Energy System Integration and Hydrogen strategies, where appropriate, including to foster electrification and renewable fuels such as green hydrogen. This could possibly include looking at the following elements:

- Increase the deployment of renewables in the power, heating and cooling, and transport sectors;
- Better use waste heat (for instance from industry or data centres) in a more “circular” energy system;
- Better integrate renewables in buildings in the context of the Renovation Wave initiative;
- Promote further development and use of renewable and other low-carbon fuels including advanced biofuels, synthetic liquid and gaseous fuels and hydrogen, in hard-to-decarbonise sectors such as industry and heavy duty transport, aviation and shipping, in synergy with the upcoming Strategy on Sustainable and Smart Mobility and related initiatives for RefuelEUaviation and maritime;
- Establish a comprehensive terminology and robust certification system including associated GHG and sustainability criteria, based on a robust life-cycle approach and traceability system;

- Review of other parts of REDII and possible introduction of new measures as appropriate to reflect the EGD objectives and related initiatives.

Taking into account the outcome of the impact assessment of the 2030 climate target plan and the assessment of the final NECPs, the following policy options will assess which elements and parts of REDII need to be adapted and to what extent to achieve the objectives outlined above.

There are different options to fulfil these objectives. The impact assessment will look at the following options, helping to decide between a combination of options 1 and 2 or combinations of options 2, 3 and 4.

#### **Option 1 – No policy change (baseline scenario)**

REDII remains as it is, without any modification. The EU renewable energy target for 2030 continues to be at least 32% and the sub-targets and measures for heating and cooling and transport are not modified.

The Commission follows the usual procedures to ensure the complete and correct transposition of the REDII by Member States.

#### **Option 2 - Non-regulatory measures**

Non-regulatory alternative policy instruments could encompass training, information campaigns, project financing etc.

#### **Option 3 - Raising the ambition level of the REDII targets and subtargets in line with the 2030 Climate Target Plan**

This option would explore how to modify the level of ambition and design of the targets and subtargets set out in REDII in line with the 2030 Climate Target Plan. This would possibly involve a revision of Articles 3, 23, 24 and 25.

#### **Option 4 – Amend REDII to translate into legal measures the actions proposed in other energy strategies of the EGD**

This could include measures to foster electrification of the end-use sectors and a better use of waste streams, increase the penetration of renewable and low carbon fuels in transport, especially renewable electricity in road transport and renewable or low carbon fuels in air, maritime and heavy duty transport, and ensure renewables are produced sustainably.

This would result in potentially amending the articles of REDII related to the development of renewable energy in heating and cooling (Articles 7, 15, 23 and 24), transport (Articles 25 and 27) and buildings (Article 15); and to the sustainability and GHG gas emissions saving criteria for bioenergy (Article 29-31) as well as introducing new

provisions on public procurement, and terminology and certification of fuels.

## Option 5 – Possible combinations of Options 2, 3 and 4

### C. Preliminary Assessment of Expected Impacts

#### Likely economic impacts

The revision of REDII is likely to have positive impacts on economic growth and investments, by creating quality jobs, and reducing fossil fuel imports, and energy costs for consumers and business, but could increase dependency of raw materials if not coupled with circular economy measures.

The economic impacts are also likely to benefit SMEs as most of the value chain of deploying renewable energy technology, in particular solar PV, is operated by SMEs.

In 2018 renewable energy substituted around 351.3 Mtoe of fossil fuels corresponding to EUR 110.4 billion in 2018. Replacing fossil fuels with renewable energy sources strengthens the EU's energy security and avoids a significant amount of expenditure on importing energy. The largest financial contributions derive from renewable electricity and renewable heat (representing about 90% of the avoided expenses)<sup>10</sup>.

The costs of renewable electricity are already lower than wholesale electricity prices in a number of EU Member States, reducing electricity prices for consumers and supporting the alleviation of energy poverty. Furthermore, more and more industrial and commercial companies are directly generating or purchasing renewable electricity to lower their electricity costs and increase their competitiveness.

All of the eight EU companies that are part of the 20 world largest clean tech companies are developing renewable energy projects, technologies and solutions. The EU has, overall, a positive and growing trade balance for renewables, with positive trade balances for wind turbines, renewable heating technologies, solar thermal and hydropower.

#### Likely social impacts

Positive employment effects are expected, especially in sectors linked to renewable energy, with an increase in employment and skills in the construction and energy supply sectors and shift in employment between the sectors. Per euro of expenditure, renewable energy creates nearly 70 per cent more jobs than fossil fuels spending. Solar PV creates more than twice the number of jobs per unit of electricity generation compared to coal or natural gas<sup>11</sup>.

In 2018, the EU RES sector generated €146.6 bn in turnover, with a 2.7% increase towards the previous year<sup>12</sup>; and the European renewable energy sector employed over 1.51 million jobs<sup>13</sup>, i.e. close to 3 jobs per 1000 capita, which is more than twice the world average.

Combined with EU's leadership in renewables technologies, the emergence of a hydrogen value chain serving a multitude of industrial sectors and other end uses could employ up to 1 million people, directly or indirectly<sup>14</sup>.

The initiative is likely to contribute to decreasing energy prices for consumers, thereby contributing to alleviation of energy poverty.

#### Likely environmental impacts

Greater use of energy from sustainable renewable sources, including renewable hydrogen, would result in reduced GHG emissions. Replacing fossil fuels will also reduce air pollutants and have a beneficial impact on health.

Renewable-based electrification of road transport would especially have positive impacts on urban air pollution, whereas electrification of, for example, heating in buildings would contribute substantially to reducing the GHG and other air pollutant emissions from the European building stock, which today relies heavily on fossil fuels.

Substitution of fossil fuels by renewable energy avoids generating GHGs from fossil fuel combustion. At current energy demand, without these savings in GHG emissions, the EU's total annual emissions would have been 11 % higher in 2018 when compared to 2005<sup>15</sup>.

The risk of unintended incentives for using unsustainable biomass will be assessed and minimised through

<sup>10</sup> <https://www.eurobserv-er.org/>, based on EEA data.

<sup>11</sup> <https://sustainabledevelopment.un.org/content/documents/17495PB13.pdf>

<sup>12</sup> <https://www.eurobserv-er.org/>, Data for the EU28 excluding the UK, €13.3 bn in 2018 in the renewables sector.

<sup>13</sup> <https://www.eurobserv-er.org/>, Data for the EU28 excluding the UK, 1,38 million jobs in 2018 in the renewables sector.

<sup>14</sup> FCH JU (2019) Hydrogen Roadmap Europe.

<sup>15</sup> <https://www.eea.europa.eu/publications/trends-and-projections-in-europe-1>

appropriate safeguards.
<b>Likely impacts on fundamental rights</b>
The initiative is fully in line with Article 37 of the Charter of Fundamental Rights of the European Union, which requires that a high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development.
<b>Likely impacts on simplification and/or administrative burden</b>
This initiative will aim to reduce administrative burden through streamlined provisions, a simplified framework and greater synergies with other pieces of legislation.
<b>D. Evidence Base, Data collection and Better Regulation Instruments</b>
<b>Impact assessment</b>
<p>The aim of the impact assessment is to support a legislative proposal to amend REDII to potentially increase the 2030 target for renewable energy and to provide for targeted new actions following energy initiatives and strategies presented this year to adapt EU energy policy to the higher climate ambition for 2030 necessary for a climate neutral European Union by 2050.</p> <p>It will therefore be consistent with and build on the impact assessment carried out for the 2030 Climate Target Plan to increase the EU 2030 climate target to at least 50% and towards 55% compared to 1990 in a responsible way, which assesses how policies should interact to achieve an increased GHG reduction target and what changes to the existing 2030 climate and energy regulatory framework might be necessary. The impact assessment will be prepared after the adoption of the 2030 Climate Target Plan with the aim to underpin the proposal to revise REDII planned for mid 2021.</p>
<b>Evidence base and data collection</b>
Existing and projected econometric tools, scientific literature, existing and projected studies, and other data available inside and outside the Commission will be used. In addition, a number of specific studies have been/are being commissioned to support the build-up of the analytical basis of the work (including Impact Assessment(s)).
<b>Consultation of citizens and stakeholders</b>
<p>A broad consultation process will be organised with different stakeholder groups (Member States, businesses including SMEs, social partners, NGOs, academia and citizens) in order to have feedback and views on what changes to REDII are needed to ensure that renewables are developed at the pace required by the goals set in the EGD and the Climate Action Plan:</p> <ul style="list-style-type: none"> <li>• This roadmap will be published and be open for comments during 4 weeks.</li> <li>• A 12-week open public consultation will be launched at the end of summer/early autumn 2020 in accordance with Better Regulation rules. It will contain multiple choice as well as open questions (replies in any of 24 EU official languages) covering a wide range of issues on REDII and renewable energy policy options. Once published, it will be possible to send a reply via the Commission's central <a href="#">public consultations page</a>.</li> <li>• Dedicated workshops on specific topics will be also organised with the relevant stakeholder groups to contribute to the impact assessment.</li> <li>• The Commission will also consider the valuable public feedback received during the preparation of the Energy System Integration and Hydrogen Strategies, as well as the 2030 Climate Target Plan.</li> <li>• The Commission will also seek targeted feedback in the context of the established regulatory fora such as the Electricity Regulatory (Florence) and the Gas Regulatory Forum (Madrid).</li> </ul> <p>A summary of the different contributions and views received during the consultation process will be published on the website.</p>
<b>Will an Implementation plan be established?</b>
<p>No implementation plan will be established. The changes to the Directive are expected to be targeted and therefore an implementation plan is not considered necessary.</p> <p>Once the amendments to Directive are adopted, efforts to ensure correct and timely transposition and implementation will include:</p> <ul style="list-style-type: none"> <li>• guidance on new provisions</li> <li>• discussions with Member States in committee and concerted action</li> <li>• transposition/correlation tables</li> </ul>