Briefing
Initial Appraisal of a European Commission Impact Assessment

European Parliament

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Use of energy from renewable sources

Impact Assessment (SWD(2016) 418, SWD(2016) 419 (summary)) of a Commission proposal for a directive of the European Parliament and of the Council on the promotion of the use of energy from renewable sources (recast)(COM(2016) 767)

Background

This note seeks to provide an initial analysis of the strengths and weaknesses of the European Commission's impact assessment (IA) accompanying the above proposal, submitted on 30 November 2016 and referred to Parliament's Committee on Industry, Research, and Energy (ITRE). The Commission's proposal is a recast of the existing Renewable Energy Directive 2009/28/EC of 2009 (and amended in 2015). The aim of the proposed recast is to achieve the goal of deriving 27 % of energy from renewable sources in EU energy consumption by 2030. This binding EU-level target was agreed by the European Council in 2014.[1] The European Parliament has called on the Commission to increase the target to at least 30 %.[2]

The proposal is part of a package of parallel Commission initiatives on energy, and is linked, in particular, to the proposal for the energy union governance, the proposed regulation on electricity markets, and the proposal for a directive on energy performance of buildings. These legislative proposals constitute the Commission's 2030 Energy and Climate Framework – a set of binding EU targets aiming to help the EU progress in this policy area during the period between 2020 and 2030. The EU 2030 targets go beyond the previously established 2020 targets, i.e. at least 27 % share of renewable energy consumption (20 % by 2020), 40 % cut in emissions compared to 1990 levels (20 % by 2020), and at least 27 % of energy saving compared to the 'business as usual' scenario (20 % by 2020).

Problem definition

The IA report identifies five general problem areas in relation to achieving the established target, such as investor uncertainty; 'insufficient contribution from the heating and cooling (RES-H&C) and transport (RES-T) sectors to the setting up of a cost-effective decarbonisation path'; absence of functioning markets; need to update the regulatory framework according to the 27 % target; and finally, lack of confidence in renewable energy at a local level among citizens, including consumers and small-scale investors. The IA report provides a problem tree that explains the main problem drivers and their implications (IA, p.56). The problem drivers are described at length, with each problem area having at least three different problem drivers. For example, as regards the problem of the absence of functioning markets, the report points out four drivers, such as external costs of competing technologies not being fully internalised; transition towards renewables can be carried out only at an individual sector level; no incentives for district heating systems to become more efficient; and difficulty to deploy renewables in aviation and maritime sectors (IA, p.56).

[1] For more information, see A. Wilson, Promoting renewable energy sources in the EU after 2020, EPRS, March 2017.
[2] European Parliament resolution, Towards a European Energy Union, December 2015.

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Overall, the report suggests that to sustain progress towards achieving the target of 27 %, the current framework needs to be revised in order 'to achieve the balance between the overall target and the regulatory measures to achieve the target' (IA. p.58). A simple continuation of existing policies would lead to a 24.3 % share of renewable energy by 2030 (IA, p.13). This is in line with the conclusions of the REFIT evaluation of the existing legislation conducted by the Commission in preparation for the impact assessment.[3]

According to the Commission, further effort would be needed to sustain the Member States' progress in achieving the 27 % target. The proposed recast of the existing legislation is therefore considered the necessary means to achieve this. However, given the close margin between the 'business as usual' scenario (24.3 % by 2030) and the 27 % target, one could ask what primary drivers have to date sustained growth in renewables in the EU. Furthermore, the report could have addressed in more rigorous terms the problem of political coordination between Member States (MS) regarding their policies on renewables, as, from the text of the report, insufficient coordination appears to be one of the main obstacles (although not mentioned in the problem tree). For example, although the problem section does suggest that 'the question is not only about the timely delivery of the target but about doing so cost-effectively, which makes the need to address the problem at EU level even more critical' (IA, p.58), it does not explain in detail why and to what extent progress towards renewable energy remains cost-ineffective across the EU. Both the problem section and the baseline scenario report would have been stronger had they provided more detailed comparisons of the progress (or lack of it) in individual Member States.

Objectives of the legislative proposal

The IA identifies four **general** objectives of the Commission's proposal (IA, p.64):

1. Contribute to 'the development of new and renewable forms of energy' as stipulated in Article 194 TFEU, keeping the Commission's political ambition for the EU to be global leader on renewables in mind;
2. Contribute to the EU's climate change commitments in the context of the Paris Agreement;
3. Contribute to the energy security ambitions set out in the energy union strategy;
4. Ensure cost-effective deployment of renewables and the functioning of the internal energy market.

The **specific** objectives are presented as follows (IA p.64):

1. Address investment uncertainty, along a path that takes account of medium and long-term decarbonisation objectives;
2. Ensure cost-effective deployment and market integration of renewable electricity;
3. Ensure collective attainment of the EU-wide target for renewable energy in 2030, establishing a policy framework in coordination with an energy union governance that avoids any potential gap;
4. Clarify the role and sustainability criteria of food-based biofuels post-2020;
5. Correct market failures in the heating & cooling sector;
6. Ensure citizen buy-in for the post-2020 period, empowering consumers to receive clear, comparable and credible consumer information on all energy sources and to 'self-consume' the electricity they generate, while respecting the principle of cost-efficiency.

The IA does not identify **operational** objectives; this is not in line with the better regulation guidelines, which specify that the operational objectives of the proposal should be identified with the preferred option. It should be pointed out, however, that this IA does not identify any preferred options.

[3] The impact assessment consists of four parts, one of which represents an additional impact assessment focused on sustainability of bioenergy. As the bulk of the proposal is linked predominantly to parts 1 to 3 of the IA, this appraisal does not discuss the impact assessment on biofuels in detail. A short summary of options and their likely impacts, indicated in the IA on sustainability of bioenergy, is presented in Annex 1 of this appraisal.

Overall, the presentation of objectives could have been more robust had the links between the problem drivers and the objectives been developed in a more precise manner. Furthermore, the problem section talks about 'problems' and 'challenges' without explaining whether these are interchangeable concepts and how the 'challenges' are linked to the 'objectives'. This methodological shortcoming is particularly apparent in the subsequent discussion on policy options, where 'policy challenges' are used as the essential part of the presentation.

Range of options considered

The IA identifies a large number of specific policy options, which are organised according to the policy challenges in the five policy domains: Electricity (RES-E), Heating and Cooling (RES-H&C), Transport (RES-T), consumer-related sector, and governance ('the overall achievement of 27 % renewables share in 2030'). The challenges, policy options, and their content are summarised in the table below:

POLICY CHALLENGE	POLICY OPTION[4]	CONTENT
1. POLICY OPTIONS IN THE ELECTRICITY SECTOR (RES-E)		
a) Consolidating a framework for cost-effective, and market-oriented and Europeanised support for renewable electricity to promote regulatory certainty	**Option 0 – Baseline scenario**	MS maintain complete discretionary powers in this domain
	Option 1 – No support for renewable electricity (discarded option)	A provision in the proposed RES directive explicitly prohibits support schemes
	Option 2 – Strengthened market-based design principles through an EU toolkit (preferred option)	The proposed RES directive sets up some basic principles for MS support schemes
	Option 3 – Mandatory move towards investment aid	Option 2 + mandatory support schemes
b) *A more coordinated regional approach to renewables support*;	**Option 0 – Baseline scenario**	MS decide on a possible cross-border extension to their support schemes
	Option 1 – Mandatory partial opening of support schemes to cross-border participation (preferred option)	This provision should follow some general principles such as reciprocity, prohibition of double-compensation and mutual assistance
	Option 2 – Mandatory regional support schemes (discarded option)	The new RES directive would provide mandatory regional schemes and define, if possible, such regions
c) *Reducing the cost of capital for renewable electricity projects;*	**Option 0 – Baseline scenario**	Currently no funding at the EU level
	Option 1 – EU-level financial instrument with wide eligibility criteria;	These could be new or existing ones (such as EFSI). Eligibility criteria would take a wide range of technologies into account, so that all MS benefit from the subsidies.
	Option 2 – EU-level financial instrument in support of higher-risk renewables projects;	This option would provide funding for renewable projects with a high cost of capital. It could be complementary to Option 1
d) Administrative simplification	**Option 0 – Baseline scenario**	The IA argues that current measures have not been effectively enforced, as administrative barriers remain
	Option 1 – Reinforced provisions with 'one-stop-shop', time ranges and facilitated procedures for repowering;	The directive would establish a time frame for the permit granting process by administrative authorities. It would also require one single administrative contact point per MS ('one-stop-shop')
	Option 2 – 'one stop shop'+ time limit, automatic approval and simple notification for small projects	Same as Option 1, but provides a fixed deadline for administrative authorities instead of a time frame. Moreover, if no answer is received after the deadline, this option would include automatic approval.

[4] Discarded and preferred options are underlined. The preferred options are those explicitly indicated as such in the Explanatory Memorandum of the proposal , since the IA report itself does not identify any preferred options.

2. POLICY OPTIONS IN THE HEATING AND COOLING SECTOR (RES-H&C)		
a) Mainstreaming renewables in heating and cooling supply	**Option 0 – Baseline scenario**	Support for H&C technology currently provided will still be in place after 2020
	Option 1 – RES obligation on fossil fuel and fossil fuel based energy suppliers for H&C	a specific provision could ask MS to compel their energy suppliers selling fossil fuels and energy in the H&C sector to achieve a mandatory renewables target
	Option 2 – Option 1 for all suppliers <u>(preferred option)</u>	every supplier has to ensure a specific target, with the only exemption that of the 100 % renewables providers
b) *Facilitating the uptake of renewable energy and waste heat in district heating and cooling (DHC) systems*	**Option 0 – Baseline scenario**	MS would decide autonomously on the possibility to encourage an increase in renewables for district H&C systems
	Option 1 – Continuation of current requirements, with best practice sharing	Current requirements extended to 2030, with an additional best practice sharing
	Option 2 – Energy performance certificates and access rights to local H&C systems	This entails stricter requirements on the support for renewable DHC infrastructures by MS (such as, for instance, the MS commitment to implement energy performance assessments in their DHC systems)
	Option 3 – Option 2 + further reinforced rights for consumers <u>(preferred option)</u>	In addition to Option 2, it would include the possibility for consumers to disconnect from DHC systems, if they can achieve higher energy performances by other means (such as energy communities)
3. POLICY OPTIONS IN THE TRANSPORT SECTOR (RES-T)		
a) Increase deployment of advanced renewable fuels in transport	**Option 0 – Baseline scenario**	This would imply the expiration of the current RES-T targets by 2020
	Option 1 – EU incorporation obligation for advanced renewable fuels	MS obligation to require fuel suppliers to provide a minimum share of renewable fuels by 2030
	Option 2 – EU incorporation obligation for advanced renewable fuels plus phase-out of food-based biofuels <u>(preferred option)</u>	Option 1 + measures ensuring the gradual replacement of food-based biofuels. This could be achieved through three approaches (full phase-out, partial phase-out and hybrid approach)
	Option 3 – Option 2 + a specific incorporation obligation for advanced renewable fuels suitable for aviation and maritime	In addition to 2, this option provides a specific approach for these sectors, as the replacement of fossil fuels in these domains is costly and complex (IA p.123)
	Option 4 – Greenhouse gas emission reduction obligation	Four different types of obligation (with four subsequent sub-options) are set. For more information in this regard, see IA pp.123-124.
4. POLICY OPTIONS TO EMPOWER AND INFORM CONSUMERS OF RENEWABLE ENERGY POTENTIAL		
a) *Empower consumers to generate, self-consume and store renewable electricity*	**Option 0 – Baseline scenario**	Currently, no self-consumption schemes are provided for at EU level
	Option 1 – EU guidance on self-consumption of renewable energy	Non-binding guidance for self-consumption prepared and implemented by the European Commission
	Option 2 – Empower citizens to self-consume and store renewable electricity	Entails the right for citizens to create self-consumption systems without suppliers' permission
	Option 3 – Distance self-consumption for municipalities	Option 2 + distant renewables self-consumption systems for municipalities
b) *Disclosing information on the sources of electricity generation*	**Option 0 – Baseline scenario**	No change in the current system results in lack of clear and consistent information provided to consumers on renewable electricity sources.

	Option 1 – Improve functioning of 'guarantees of origin' (GO)[5] system	Upgrading of the current GO system by making current MS good practice approaches mandatory
	Option 2 – Option 1 plus GOs mandatory for disclosure	GOs become the only disclosure system on renewable electricity consumption for citizens
	Option 3 – Option 2 plus extend GOs to all sources of electricity generation	This option would allow the same origin track system of fossil and nuclear energy
c) *Tracing origins of renewable fuels used in heating and cooling and transport*	**Option 0 – Baseline scenario**	No current GO system for biofuels
	Option 1 – Extend GOs to renewable gaseous fuels <u>(preferred option)</u>	This entails the development of a tracking mechanism for bio methane injected into the European gas grid
	Option 2 – Extend GOs to renewable liquid and gaseous fuels	Provisions of Option 1 are extended also to liquid fuels
	Option 3 – Develop alternative tracking system for renewable liquid and gaseous fuels <u>(preferred option)</u>	These would include, for instance, an electronic registry in which economic operators enter data on the movement of gaseous and liquid renewable fuels in order to track them.
5. OPTIONS TO ENSURE THE ACHIEVEMENT OF AT LEAST 27 % RENEWABLE ENERGY IN 2030		
a) Baseline of 2020 targets	**Option 0 – Baseline scenario**	No specific requirements after 2020, current requirements lapse.
	Option 1 – 2020 national targets as basis for further increases	The 2020 targets would be the basic threshold MS have to consider
b) *EU Trajectory 2021 – 2030 for achievement of the EU renewables target*	**Option 0 – Baseline scenario**	No trajectory at the EU level is envisaged
	Option 1 – Linear trajectory <u>(preferred option)</u>	
	Option 2 – Non-linear trajectory	
c) *Mechanism to avoid an 'ambition gap' to the EU renewables target*	**Option 0 – Baseline scenario**	This would imply no relevant provisions
	Option 1 – Revise ambition of national plans	The Commission would periodically review the draft national plans of MS
	Option 2 – Review clause to propose additional EU level delivery mechanisms at a later stage	The Commission would carry out the review after the presentation of national plans in order to assess the potential need for additional measures.
	Option 3 – Increase the ambition of EU wide measures	Option 1 + stricter measures, such as obligations for transport and heating and cooling
	Option 4 – Introduce binding national targets	They would be consistent with the 2030 EU level target of 27 %
d) *Mechanism to avoid and fill a 'delivery gap' in the EU renewables target*	**Option 0 – Baseline scenario**	No current relevant provisions
	Option 1 – Revise delivery of national plans	The Commission would review MS integrated national energy and climate progress reports
	Option 2 – Include a review clause to propose additional EU level delivery mechanisms at a later stage	Under such a clause, a review would be carried out after 5-7 years in order to assess the need of further measures to correct any delivery gap.
	Option 3 – Increase the ambition of EU wide measures proposed in the legislation <u>(preferred option)</u>	This would entail, *inter alia,* measures specifically envisaged for filling any delivery gap
	Option 4 – Introduce binding national targets	They would be consistent with the 2030 EU level target of 27 %

[5] According to the current RES Directive (Article 15), the 'guarantees of origin' system is a virtual 'book and claim' system, informing citizens of the origins of renewable electricity.

Although overall the IA presents a large number of different options (more than 30), the range of options in each policy domain does not appear to be particularly wide. In most cases, the range is limited to only one or two reliable options (with the exclusion of the baseline scenario). Furthermore, since the options are linked to policy challenges and not the problems or objectives defined in the previous sections, it is difficult to understand whether each problem has an adequate range of options. Finally, the range of options does not seem to go beyond the 27 % target. As remarked earlier, given the near-achievement of the target, it could have been reasonable to expect some options that would have enabled further progress towards increase of the share of renewables in the EU's energy mix, as also required by the Parliament, which called on the Commission to increase the target to at least 30 %.[6]

Scope of the impact assessment

The IA assesses the policy options against their economic, social, and environmental impacts. According to the Commission, many of the options discussed in the report would have positive economic impacts, as they would strengthen citizen, investor and business certainty in expanding their use and production of renewable energy (IA, p.166). The report mentions the deployment of support schemes (as envisaged in the options for the electricity sector), or greater predictability of future demand (Option 2 for transport), as the options that would have such positive economic impacts. Another significant positive economic impact is considered to accompany citizens' empowerment in the production of renewables as **prosumers** (Option 3 in section 2b and all options in section 4a). Additionally, a more transparent guarantee of origin (GO) system (Options 1 and 2 in the empowering consumers section) is considered to have positive effects on the renewables market in terms of costs and effectiveness.

As regards the social impacts, the creation of regional schemes (Option 1b for the electricity sector), as well as the measures that enable citizens to become prosumers are stated to have significant social impacts. For example, job creation is expected to improve as the number of prosumers increases (IA p.145).

According to the IA, the setting up of a more efficient GO system would have positive social impacts because of the availability of reliable data for consumers. However, these positive effects will depend on the degree of access and quality of such data. In the transport sector, the production of new biofuels may have different social impacts according to the scheme envisaged and, above all, on the capability of the conventional biofuels industry to adapt to the production of advanced biofuels. Furthermore, some of the options, in particular Options 1b and 2b for the electricity sector, are stated to have significant territorial impacts. The IA used the WESIM model to test the impact of cross-border cooperation. The results of this test can be found in Annex 5 of the IA, pp.269-270.[7]

Environmental impacts are stated to vary according to the type and location of the renewable energy power generation deployed in the electricity sector (IA p.80). Moreover, regional support schemes may enhance the development of renewables in countries still largely using fossil fuels, creating, therefore, a reduction in fossil fuels and CO_2 emissions in those Member States.

Some options are stated to have negative impacts. In the heating and cooling sector, obligation systems (HCOS) for the use of biomass may have potentially negative impact on air quality. In the transport sector, indirect land use change (ILUC) plays a major role in calculating the potential effects of the various policy options. In this domain, according to the Explanatory Memorandum of the proposal, Option 2 (preferred option) seems to be the most suitable, as it would lead to a gradual reduction of food-based biofuels, thus balancing economic and environmental effects of the switch towards the production of advanced biofuels.

Subsidiarity/proportionality

[6] European Parliament resolution, Towards a European Energy Union, December 2015.

[7] The IA does provide assessment of impacts on a country-by-country basis, however it looks at five regions in one of the analytical models. The regions are as follows: Nordic Region, British Isles, Central Europe, Southern Europe, Iberian Peninsula (Annex 4 and Annex 5, p.271).

The legal basis for the proposal is Article 194 TFEU (IA p.60), which stipulates the EU's competences in the field of energy. The IA report explains that EU-level action is needed because action exclusively from Member States would lead to a more limited deployment of renewables and put the achievement of the EU target at risk (IA, p.60). The report addresses the relevance of the subsidiarity principle for most of the options (under the term 'political feasibility'). As regards proportionality, the report states that proportionality will be 'ensured by striking the balance between objectives of competitiveness, security of supply, and sustainability and by considering the long-term benefits beyond 2030 of the proposed course of action' (p.62). A more detailed sector-by-sector explanation of proportionality of the proposed measures would have been necessary in order to understand better the approach towards a a recast of the current legislation taken by the Commission.

Several national parliaments submitted reasoned opinions and resolutions on the proposal. The Czech Chamber of Deputies adopted a resolution in which it called for 'strict maintainance of the non-binding nature of national contributions to the European renewable target'. The German Bundesrat called for common rules on the European level including 'necessary latitude and flexibility' of required measures. The Polish Senate adopted an opinion in which it raised a number of concerns, most of which are critical of the mandatory nature of the proposed measures. The Parliaments of Portugal, Spain, and Romania adopted separate resolutions on the proposal, which they found to be in compliance with principle of subsidiarity.

Budgetary or public finance implications

According to its Explanatory Memorandum, the proposal has no specific financial implications for the EU budget. Moreover, the recast of the Renewable Energy Directive is expected to have limited budgetary and administrative impact for the Member States' respective competent authorities. According to the Commission, 'in most cases the costs are passed on to final consumers, who in turn will profit from the benefit of decarbonisation' (Explanatory Memorandum, p.20). Overall, the IA report tends to focus on positive economic impacts for consumers by pointing out that 'self consumption allows consumers to lower their electricity bill' (IA, p.144). The report does not provide a quantitative assessment of financial implications for consumers, such as savings by means of self-consumption, due to the unavailability of relevant statistics.[8] The report would have benefited from a more balanced assessment of not only positive impacts but also potential real costs for the final consumers.

SME test/Competitiveness

Overall, the report does not place specific focus on SMEs when discussing the options, except for providing limited references to SMEs under the 'other impacts' heading. For most options, the Commission does not consider impacts on SMEs to be significant, and the options envisage flexible mechanisms, e.g. exemption of SMEs from the obligation schemes by Member States (options for the heating and cooling sector). Regrettably, the IA does not deliver a more detailed analysis of the impacts on SMEs: there is generally little quantitative analysis of the impacts on 'small actors', and the IA does not link the impacts on SMEs with concrete options. As for competitiveness, the report explains that the competitiveness of European industries is expected to increase as the costs of renewable energies decrease. The IA does not provide a separate assessment of competitiveness, although EU competitiveness in the realm of renewable energy is one of the stated overarching goals of the proposal.

Simplification and other regulatory implications

The Explanatory Memorandum explains that the proposed recast will make it easier for the Member States to collectively achieve the EU target of 27 %. It also stresses that the new proposal aims at creating a level playing field for the three main sectors involved. For example, the proposal envisages many simplified measures in the electricity sector (Article 5), as well as a decrease in administrative burden (Articles 15, 16 and 17). In particular, this issue is treated in depth in the electricity policy area. It seems, therefore, that the report dedicates much more attention to this topic in just one energy sector, and is less attentive to this issue in the other domains.

[8] Some data is provided in the case of Germany (IA, p.144).

Relations with third countries

The IA points out that some provisions regarding the recast of the RES Directive may have some consequences for non-EU countries. With regard to the transport sector, for instance, greenhouse gas emissions from indirect land use change may emerge in those countries that produce biofuels at the lowest costs. For this reason, in the assessment regarding the policy options in the RES-T domain, some paragraphs are also dedicated to the impact of the provision on third countries. Within this section, the IA points out that Option 2B (full phase out of food-based biofuels by 2030) is expected to have negative impacts on commercial relations with commercial partners exporting food-based biofuels (and in particular palm oil) to Europe (such as Argentina, Brazil, Malaysia and Indonesia).

Quality of data, research, and analysis

The analytical models and model-based scenarios used in preparation of the impact assessment are presented in Annex 4 of the IA. The Commission relied almost exclusively on the PRIMES model, which is an 'EU energy system model that simulates energy consumption and the energy market equilibrium in the European Union and in each of the Member States' (IA, Annex 4, p.217). The same PRIMES model was used to analyse the impacts of the Commission's target for other proposals in the energy field, including EU 2030 energy efficiency targets. The model was complemented by other models, in particular PRIMES-TAPEM and PRIMES-TRIMOVE models, for the transport field, and PRIMES Biomass Supply for the biomass. It needs to be underlined that the report frequently mentions lack of transparent and reliable data as one of the problem drivers. The report also acknowledges the 'significant differences in the assessment tools and underlying assumptions' which led to separate assessment of the options for the heating and cooling sector.

The Commission conducted a Reference 2016 (REF 2016) scenario, coordinated between DGs ENER, CLIMA and MOVE in association with the Commission's Joint Research Centre (JRC). The REF 2016 is a general scenario encompassing all energy-related domains and policies, including renewable energy policy. The main findings of the REF 2016 scenario relevant for the impact assessment are described on pp.238-240. In addition to this comprehensive overview, the Commission worked out a separate (EUCO 27) policy scenario, as a baseline scenario for all impact assessments related to energy. A third scenario, the Current Renewables Arrangement (CRA) was also used specifically for the policy field of renewables. The Commission mentions discrepancies between these scenarios (IA, Annex 4, p.260) but overall all of the scenarios operate with the same 27 % target. One could argue that the quality of the analysis could have been stronger if the common assumptions of these scenarios had included a possibility of more ambitious targets. In addition, given that individual Member State contributions have been key in assessing the achievement of the target, one could have expected a country-by-country analysis.

Stakeholder consultation

A public consultation was held from November 2015 to February 2016. The most important stakeholders involved in the consultation were national and EU associations (with strong industry association participation), businesses, citizens, NGOs, energy cooperatives, national governments, and local authorities. Moreover, a stakeholder workshop was held in February 2016, and a dedicated discussion took place in June 2016 during the Electricity Regulatory Forum in Florence. The details of the public consultation are presented in Annex 2 and Annex 6 of the IA.

The responses to the public consultation concern support schemes for businesses, citizens' ability to self-produce and consume energy, the removal of administrative barriers, the decarbonisation of the H&C sector and the increase in the share of renewables in the transport sector. According to the Commission, a broad consensus emerged among the stakeholders on the most general issues such as, a preference for a clear and straightforward EU legal framework, prevention of retroactive changes to support schemes, EU support for research and innovation on renewables and the removal of administrative barriers. However, with regard to subjects such as the geographical scope of support schemes and the exposure of renewables to market conditions, respondents were more divided. Annex 2 of the report also points out that, although 73 % of stakeholders are satisfied with the achievements of the current directives for the 2020 target, more than 90 % of respondents believe that local

renewables' potential is still unexploited. The IA refers to the stakeholders' opinions when presenting the options, however, it does not go into detail as to which groups of stakeholders expressed certain views on the options.

Monitoring and evaluation

The IA envisages monitoring and evaluation organised around two aspects. First, Member States would have to report every two years, from 2021 onwards, on their progress on the implementation of the proposal. Second, the Commission would integrate the information collected from Member States in the State of the Energy Union Report. Moreover, it would also focus on a report of the cost-effective deployment of renewable energy, with a specific focus on its impact on consumers and economic operators. Finally, the European Commission also evaluates the impact of the revised RES directive in the context of the EU pledge to become the world leader in renewable energy.

As the IA lacks preferred options to take into account in the monitoring and evaluation phase, this section does not refer to precise operational objectives. Therefore, the monitoring criteria tend to avoid detailed provisions, but recall the general and specific objectives presented in the first part of the report. Finally, this section of the report would require a more clear and detailed explanation of the coherence between the proposed measures and the energy governance proposal which covers the governance mechanisms for the entire energy package.

Commission Regulatory Scrutiny Board

The Regulatory Scrutiny Board (RSB) issued a negative opinion on 14 September 2016, and indicated where revisions would be necessary. In its negative opinion the Board pointed out that the impact assessment should have demonstrated convincingly why all the sectors should contribute equally to the achievement of the target and how this would be the most efficient approach. In particular, the Board was critical about the baseline scenario and the use of the PRIMES models and asked for more clarifications. Another important issue raised by the RSB was related to subsidiarity, as the report did not sufficiently explore the policy actions of individual Member States and did not compare them to the proposed EU level action.

The Commission submitted a revised report, but this received a second negative opinion from the RSB on 4 November 2016. The Board acknowledged the improvements made to the revised version, but maintained its criticism of several significant parts of the impact assessment. In particular, the issues pertaining to the proportionality of new legal measures on heating and cooling, and electricity sectors, as well as the analysis of the balance between EU level action and the existing national measures, which were considered as insufficiently explained in the IA report. The conclusion drawn by the Board was that the lead Directorate General (DG ENER) should seek 'the appropriate political approval' before officially submitting the proposal to inter-service consultation. The Explanatory Memorandum mentions that the Commission decided to proceed with the proposal on the basis of the existing impact assessment despite the two negative opinions it received as it 'considered it opportune to go ahead with the recasting of the Renewable Energy Directive while taking in due account the reservations expressed by the RSB'. The IA report describes which RSB criticisms were taken into account in the proposal in a specific section (Part 2, pp.188-202). Although many of the RSB comments were addressed in this section, some points would definitely deserve a more thorough revision and incorporation in the main body of the report. Most importantly, one could expect a more convincing and detailed explanation of the coherence and proportionality of proposed measures in all the sectors involved in the recast, as well as a better presentation of the implications for SMEs and burdens for end-consumers in the heating and cooling sector.

The additional IA report on sustainability of biofuels received a positive RSB opinion on 14 September 2016.

Coherence between the Commission's legislative proposal and the impact assessment

In the Explanatory Memorandum, the Commission explains what modifications were made to the proposal in view of the two negative RSB opinions and the fact that the impact assessment did not identify preferred options. For example, in the electricity sector, the RSB questioned the political feasibility of Option 2, as according to the Board

it would not respect the subsidiarity principle. For this reason, it is proposed to replace the obligation with a set of options to be chosen by Member States in order to increase the flexibility of such a measure.

Conclusions

Despite its considerable length and a rather large number of options (over 30), the IA report could have delivered a more coherent, comprehensive, and persuasive analysis. The internal logic of the report and the arrangement of options is at times hard to understand because the options are linked to challenges rather than to clearly defined problems and objectives. Furthermore, the absence of preferred options makes it difficult to assess the usefulness of the impact assessment in informing the political decisions underpinning the legislative proposal. The use of different models, which are by the Commission's own admittance very difficult to compare, may have led to a certain lack of coherence in the assessment of the impacts. The proportionality of proposed measures is not always clearly visible compared with the evidence provided by the models used in the assessment. Overall, given the number of considerable shortcomings and the fact that the assessment twice received a negative opinion from the RSB, one might have expected a better argumentation for the Commission's decision to proceed with the proposal.

Annex 1 – Problems, policy options, and impacts of the IA on sustainability of bioenergy

This table summarises the options presented in the impact assessment report on sustainability of biofuels prepared in addition to the impact assessment on the recast of the RES Directive.

PROBLEMS	POLICY OPTION[9]	IMPACT
1) *Increasing demand for biomass can have minimum or even negative impacts on climate compared to fossil fuels*	**Option 1 – Baseline scenario** Existing new policies at the EU and national level would remain in place. Moreover, new policies will be implemented as part of the energy union strategy and the 2030 Climate and Energy Framework. The Paris Agreement on climate change would also be implemented by the EU and non-EU signatory countries.	
2) Production and use of biomass may negatively affect biodiversity, soil and air quality *3) Increasing combustion of biomass in low-efficiency installations, in particular in the case of electricity-only plants, fosters a larger demand for resources.*	**Option 2 – extensions of the biofuels sustainability criteria to solid and gaseous biomass for heat and electricity** These criteria involve: – The extension of provisions limiting the production of feedstock from certain areas to all biomass used for heat and electricity; – An obligation for heat and electricity biomass producers, requiring minimum performance in terms of greenhouse gas (GHG) supply chain emissions.	**Economic:** no significant change in CAPEX[10] for economic operators, slightly increase of sawlog prices by 2030. Some positive impacts on intra-EU trade. Requirements set on the supply chain might also affect SMEs. **Social:** slightly negative employment effects for forest owners or farmers because of additional certification costs. **Environmental:** remarkable positive impact on LULUCF[11] emissions, slightly increased conversion of unused forests to used forests.
4) The internal market is fragmented because of increased administrative burdens and different sustainability requirements across Member States	**Option 3 – option 2 + risk-based approach for forest feedstock + requirements on LULUCF emissions** This option replaces land-based criteria for forest biomass (Option 2) with requirements on forest management based on a 'risk-based approach'. The latter would work on two levels of evidence (national/regional and forest holding level). Moreover, Option 3 would envisage measures including LULUCF emissions in national accounting systems and climate policies in the producing country.	**Economic:** negative impacts (less investment) on CAPEX for biomass installations, positive impacts (more investment) on CAPEX for total RES installations. Positive effects on intra-EU trade, possible increase in the level of imports. **Social:** risk-based approach could minimize the negative effects on employment arising from Option 2. **Environmental:** little additional impact on LULUCF-specific removal of GHG from the atmosphere, very limited impact on biogenic carbon, land use and biodiversity.

[9] Although the IA does not select a preferred option, the Explanatory Memorandum indicates Option 3 as preferred, as it should ensure the best cost-effective delivery in the EU post-2020 framework in terms of GHG savings and minimising negative environmental impacts.

[10] Capital expenditure.

[11] Land Use, Land Use Change and Forestry.

	Option 4 – Option 2 or 3 + minimum energy efficiency requirements; Built on Option 2 or 3, this option would also add a measure asking for a 60 % minimum level in efficiency of biomass conversion to heat and electricity.	**Economic:** no significant change in CAPEX for biomass installations, slightly positive impacts on CAPEX for total RES installations. **Social:** modest social effects compared to the other options. **Environmental:** limited reduction of the amount of biomass for energy compared with the baseline, small impact on biogenic carbon, land use and biodiversity.
	Option 5 – Option 2 or 3 + cap on certain feedstock for solid biomass In addition to the requirements set by Option 2 or 3, this policy option would introduce a cap established at national level on the use of round wood and stumps for energy. According to some specific criteria, such as the round wood diameter and or the type of wood (e.g. salvage logging), some feedstock may not be included in this cap.	**Economic:** negative impacts on CAPEX for biomass installations, positive impacts on CAPEX for total RES installations. Increase in sawlog prices. Possible negative impacts on forest owners. Potential increase in the level of imports. **Social:** highest creation of jobs compared to other options because of a significant economic impulse. **Environmental:** positive, but very limited additional impact on global LULUCF emissions compared to Option 2. Positive impacts on biodiversity, as the application of the cap would also include stumps (the use of which is detrimental to biodiversity).[12]

This note, prepared by the Ex-Ante Impact Assessment Unit for the European Parliament's Committee on Energy, Industry, and Research analyses whether the principal criteria laid down in the Commission's own Better Regulation Guidelines, as well as additional factors identified by the Parliament in its Impact Assessment Handbook, appear to be met by the IA. It does not attempt to deal with the substance of the proposal. It is drafted for informational and background purposes to assist the relevant parliamentary committee(s) and Members more widely in their work.

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[12] For more information in this regard, please see Annex 7 of the IA, p.126.