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Co-Power project response to EC Consultation

Wednesday 10th February

Consultation questionnaire (web-based)

Preparation of a new renewable energy directive for the period after 2020

Questions:

1. *To what extent has the RED been successful in helping to achieve the EU energy and climate change objectives?*

<i>Very successful</i>	<i>Successful</i>	<i>Not very successful</i>	<i>Not successful</i>	<i>No opinion</i>
	✓			

[Box: Comments. To what extent did implementation measures for the RED as well as external factors (technological development, financial crisis, security of supply concerns and related market interventions) affect the effectiveness and efficiency of achieving the objectives? Please identify and ideally also quantify the direct and indirect costs and benefits such as macroeconomic effects, competitiveness effects, innovation, cost and cost reductions, environmental and health effects of the RED. Max 500 words]

The Renewable Energy Directive has had a critical impact on incentivising and integrating renewable energy of renewable energy in the European Union. Determining success factor for the RED having helped achieving the EU energy and climate change objectives were:
 - the fact that the RED included binding targets, broken down for each Members State, this has allowed for measures tailored to national circumstances to have a positive impact.

- the fact that the RED provided stable, reliable, predictable and transparent forward-looking strategic planning of renewable energy development for each MS;
- the fact that the RED was interlinked with overall climate mitigation targets;
- ensured flexibility and opportunities for national 'adaptation'.
- principles of priority grid access and connections for renewables in some countries.

In particular, **targets** have had a significant impact on renewable energy development. Between 1995 and 2000, when there was no regulatory framework, the share of renewable energy in the EU final energy consumption grew by only 1.9% a year on average. Between 2001 and 2010, when the indicative targets were adopted, the average growth rate increased by 4.5% per year. With the adoption of legally binding targets, the growth accelerated further. In 2012, the share of renewable energy sources increased by 9.3%, thereby reducing CO₂ emissions, the EU demand of fossil fuels and in particular the consumption of natural gas.

We must not neglect certain negative consequences of the 2020 Renewables framework, as far as biofuels and other forms of bioenergy are concerned, large-scale renewable energy deployment without appropriate planning and safeguards has caused direct negative environmental impacts and in some cases failed to reduce GHG emissions.

The RED for the period 2020-2030 should build upon the successful provisions of the current RED. Therefore, **revising** the current directive should be the preferred option (as opposed to a **new** directive, which requires renegotiation on every single article of the new directive). Reopening the entire Directive creates increased uncertainty for investors in the Renewable sector.

Without a strong legal framework in the form of a (revised) Renewable Energy Directive, the European Commission would not be able to resort to infringement proceedings, while the number of infringement procedures launched under the Renewable Energy Directive precisely showed the importance of this tool. The legal framework should also enable the Commission to intervene when Member States make counter-productive changes to their regulatory framework such as retroactive changes to support mechanisms (e.g. Spain).

2. *How should stability, transparency and predictability for investors be ensured with a view to achieving the at least 27% renewable energy target at EU level? Please indicate the importance of the following elements:*

	Very important	Important	Not very important	Not important	No opinion
Forward looking strategic planning of RES development is required by EU legislation	√				
Best practice is derived from the implementation of the existing Renewable Energy Directive	√				
Regional consultations on renewable energy policy and measures are required		√			
Member States consult on and adopt renewable energy strategies that serve as the agreed reference for national renewable energy policies and projects	√				
The Commission provides guidance on national renewable energy strategies	√				

[Box: Any other view or ideas? Please specify. What are the lessons from the RED (mandatory national targets, national plans, progress reports etc.)? Max 500 words]

Key lessons from the RED included in the NGO report 'Effective Governance for the EU 2030 Renewable Energy Target' (available at www.caneurope.org) are that:

1. For delivering on the 2030 targets, **national binding targets** remain the preferred option. Indeed, given the importance of capital costs for renewables, clear and binding targets will provide visibility for investors including citizen investors and therefore act as a de-risking lever, which will at the end make the energy transition cheaper;

2. The 2009 RED showed the importance of providing a detailed template for **planning and reporting**. The standardised reporting facilitated the monitoring of the Member State actions and increased transparency for investors. Future plans should continue to present a detailed account of planned renewable energy progress up until 2030; planned breakdown of the renewable energy share in various sectors (electricity, heating and cooling and transport); planned contribution of each renewable energy technology up until 2030; implemented and planned support measures; the functioning of support schemes and other measures; progress made in improving administrative procedures; measures taken to promote renewable energy integration into the grid; the use of cooperation mechanisms. The future plans should also aim for more details and consistency on the following elements: support measures for the heating and cooling sectors; simplification of authorisation and permitting procedures; grid connection, operation and development.

The more specific the reporting will be, the easier it will be to see where the Member State deviate from its planning. This information should be publicly available.

3. It is crucial for the Commission to regularly report (e.g. on a biannual basis) on progresses made by Member States to draw overall conclusions from the analysis of the 28 Progress Reports and highlight issues as well as success stories.

4. The **national support schemes** adopted by EU Member States have been instrumental in the substantial deployment of renewable energy in recent years. They will continue to play an important role in ensuring the required investments for reaching the 2030 targets. Provisions mandating the adoption of support schemes should be maintained in a reviewed RED.

5. Progress on **removal of administrative barriers** has been limited. These provisions should be strengthened in a reviewed RED. It is recommended to require the setting of a one-stop shop in order to create one single permitting procedure, coordinating the input of all authorities involved.

With increasing shares of variable renewable energy sources, the European Commission should also – in a reviewed RED:

- define a legal framework for regulating grid curtailment;
- provide provisions to better align grid extension and renewable energy planning;
- ensure the right of community and citizen renewable energy producers to access the grid;
- require a regular monitoring and assessment of renewable energy integration to the grid in the Member States.

3. Please rate the importance of the following elements being included in Member States' national energy and climate plans with respect to renewable energy in ensuring that the plans contribute to reaching the objectives of at least 27% in 2030.

	Very important	Important	Not very important	Not important	No opinion
Long term priorities and visions for decarbonisation and renewable energy up to 2050	√				
In relation to national/regional natural resources, specific technology relevant trajectories for renewable energy up to 2030	√				
Overview of policies and measures in place and planned new ones	√				
Overview of renewable energy trajectories and policies to 2050 to ensure that 2030 policies lie on the path to 2050 objectives	√				
Qualitative analysis		√			
Trajectories for electricity demand including both installed capacity (GW) and produced energy (TWh)	√				
Measures to be taken for increasing the flexibility of the energy system with regard to	√				

renewable energy production					
Plans for achieving electricity market coupling and integration, regional measures for balancing and reserves and how system adequacy is calculated in the context of renewable energy	✓				

[Box: Please explain. Max 500 words]

We need much more holistic and integrated approaches to designing energy systems. Therefore, all the above-mentioned elements are crucial for the energy transition to succeed. In particular, a **long-term perspective** is vital to ensure that measures implemented to achieve the 2020 and 2030 targets increase / do not reduce the likelihood of delivering 2050 goals. Such a long-term view is also needed to ensure that system elements with an extended life span, particularly electricity transmission and distribution infrastructure, but also fundamental elements of market design, are appropriately designed to ensure increasing volumes of variable renewable energy in the system. NGOs and others have demonstrated that the global energy mix can be 100% renewable by 2050. The EU should achieve this goal (well) before 2050. The long-term vision should serve as a guide and not as an excuse to postpone important investment/divestment decisions, which need to be taken in the coming two decades.

As far as national and regional plans are concerned, it is worth highlighting that while NREAPs have proved a useful tool of the current RED, they did not consider the environmental sustainability and impacts of the plans and, as far as bioenergy is concerned, failed to identify what kind of biomass, its origin and its environmental and climate impacts, while also largely underestimating the share of imports. Progress reports should cover the sustainability aspects of all bioenergy, including the reporting on ILUC emissions. National and regional plans must therefore reflect (and identify) available renewable energy resources such as onshore and offshore wind, solar, hydro and the areas suitable for their deployment without creating conservation risks, but also crucially the available sustainable supplies of biomass for energy use, prioritising waste and residues based resources and avoiding indirect displacement of uses by respect cascading of use principle and the waste hierarchy.

4. What should be the geographical scope of support schemes, if and when needed, in order to drive the achievement of the 2030 target in a cost-effective way?

- Harmonised EU-wide level support schemes*
- Regional level support schemes (group of Member States with joint support scheme)*
- National support schemes fully or partially open to renewable energy producers in other Member States*
- Gradual alignment of national support schemes through common EU rules*
- National level support schemes that are only open to national renewable energy producers*

[Box: Please explain. Max 500 words]

On the matter of support of subsidies the most important point to note is that all energy generation currently being installed is being built with some kind of State Support. What kind of generation is being supported is therefore a matter of political choice until the overcapacity in the European Energy market is dealt with. National level support schemes have proven the most reliable and robust way of encouraging renewables development, and crucially in allowing the sector to be accessible to community projects and cooperatives. There have been some lessons learnt from badly designed support schemes and guidance to avoid these in the interest of the renewables sector.

A gradual and careful alignment of national support schemes through common EU rules could be useful if focussing on the following:

- i) best practices on dynamic design elements to avoid overcompensation, coupled with clear market monitoring mechanisms;
- ii) best practices for the design of tendering mechanisms.

5. *If EU-level harmonised /regional support schemes or other types of financial support to renewable energy projects would be introduced:*

- *What hinders the introduction at the EU wide and/or regional scale?*
- *How could such mechanism be activated and implemented?*
- *What would be their scope (what type of projects/technologies/support mechanisms could be covered?)*
- *Who would finance them?*
- *How could the costs of such measures be shared in a fair and equitable way?*

[Box: Max 500 words]

EU-wide schemes could play as a gap-filler mechanism **only** in case the 27% target is not being delivered on the way to 2030. Any gap-filler must therefore be designed in a way to prevent intentional under-bidding from member states.

In addition, with a EU-wide support scheme, the risk is that the financial support will see a race to the top because of profit shopping. The national focus and the resistance for national energy consumers or national taxpayers to see their money funding renewable energy projects abroad might be a huge obstacle.

For these reasons, a EU-wide support scheme should therefore only be activated in case the EU is not on track to reach the 27% EU-binding RES target.

6. *The current Renewable Energy Directive gives Member States the possibility to enter into various cooperation mechanisms (statistical transfers, joint projects and/or joint support schemes). Please expand on the possible new legislative and non-legislative measures that could be introduced to foster the development of cooperation mechanisms in the period beyond 2020.*

[Box: Max 500 words]

7. *The use of cooperation mechanisms has been limited to date. Which of the below factors do you consider important in explaining the limited recourse by Member States to cooperation mechanisms so far?*

	<i>Very important</i>	<i>Important</i>	<i>Not very important</i>	<i>Not important</i>	<i>No opinion</i>
<i>Unclear legal provisions</i>					√
<i>Administrative complexities</i>	√				
<i>Lack of cost-effectiveness / uncertain benefit for individual Member States</i>	√				
<i>Government driven process, not market driven</i>					√

<p><i>Member States reluctant to see their taxpayers/ consumers' money used for investments outside their country</i></p>					<p>✓</p>
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[Box: Other? Please explain.]

Cooperation mechanisms – as a means to promote Member State cooperation – indeed did not work so far. Administrative and regulatory complexities probably can explain to a large extent the limited use of joint projects and joint support schemes. However, some Member States may consider that investing closer to 2020 by buying volumes via statistical transfers could become less expensive than deploying renewables on their own territory. It is therefore not unlikely that statistical transfers will be used more in the coming years.

The European Commission could further incentivise cooperation mechanisms, which entail interesting forward-looking benefits in a 2030 perspective e.g. joint projects or joint support schemes. To foster the development of cooperation mechanisms, the RED beyond 2020 should:

- define Members State accountability as clearly as possible;
- define the role of and strengthen sub-national regions/governments (empower them to be an active player in renewable energy policy planning and target setting) and remove barriers for municipalities and energy cooperatives and bring them in the energy system as active stakeholders;
- develop concrete funding opportunities for regional cooperation,
- foresee regular assessments of cooperation opportunities by the European Commission;
- enable renewable electricity producers be fully or partially eligible for support in another Member State, while ensuring local ownership and participation;
- ensure that part of revenue from renewable projects are channelled towards local development projects (e.g. case study of Danish community Hvinde Sande and Community Benefit Societies in the UK);
- enable new actors to enter energy cooperation projects;
- enable the design of local network tariffs;
- enable innovative mechanisms to determine electricity prices.

It would make sense to investigate – both the positive and negative aspects - the only existing cooperation system, i.e. the one between Norway and Sweden.

8. *How could renewable electricity producers be fully or partially eligible for support in another Member State? Which elements would you include in a possible concrete*

framework for cross-border participation in support schemes? Any other consideration? Please explain.

[Box: Max 500 words]

9. Please assess what kind of complementary EU measures¹ would be most important to ensure that the EU and its Member States collectively achieve the binding at least 27% EU renewable energy target by 2030:

	<i>Very important</i>	<i>Important</i>	<i>Not very important</i>	<i>Not important</i>	<i>No opinion</i>
<i>EU-level incentives such as EU-level or regional auctioning of renewable energy capacities</i>			√		
<i>EU-level requirements on market players to include a certain share of renewables in production, supply or consumption</i>		√			
<i>EU-level financial support (e.g. a</i>		√			

¹ Without prejudice of the actual funding mechanism, where required, of the complementary EU measures

<i>guarantee fund in support of renewable projects)</i>					
<i>EU-level support to research, innovation and industrialisation of novel renewable energy technologies</i>		√			
<i>Enhanced EU level regulatory measures</i>	√				

[Box: Any other ideas or comments, please explain. Max 500 words]

Any EU-level action – complimentary to the one of Member States - must not incentivise Member States to take inadequate measures domestically and then seek EU support to 'fill the gap'. Therefore, complementary EU actions should not prioritise incentives or financial support, but should be focused on the structural changes that can facilitate renewable energy deployment, including through the removal of administrative barriers and capacity building.

Many of these measures could and should be taken pro-actively by the European Commission through its proposals on energy governance and energy markets. These pro-active measures should include ensuring that the IEM is aligned with the delivery of EU climate and energy goals, that Member State energy markets are designed to deliver energy efficiency and renewable energy, and that independent regional institutions can oversee the least-cost delivery of system balancing, such as demand response measures, and other policy objectives so as to match flexible demand with variable supply.

In order to ensure that the targets are reached in a sustainable way that contributes to the overall emission reduction targets of the EU, strict sustainability safeguards for bioenergy are needed.

Innovation support is needed to help integrate different types of energy services (heating, cooling, electricity, storage, transport) and bring forward technologies with low ecological impacts (e.g. geothermal, most kinds of micro-generation), for which the EU has a high ecological capacity (e.g. floating offshore wind) and that are needed to maintain electric system stability (demand side response, distributed electricity storage).

10. *The Energy Union Framework Strategy sets the ambition of making the European Union the global "number one in renewables". What legislative and non-legislative measures could be introduced to make/strengthen the EU as the number one in renewables? Has the RED been effective and efficient in improving renewable energy industrial development and EU competitiveness in this sector?*

[Box: Please explain. Max 500 words]

For Europe to be global number one in renewables we need to be producing renewable energy in every community in every member state. A huge number of diverse community energy projects exist across Europe. These range in scale from small solar arrays on schools to multi-megawatt co-operative wind projects. For the EU to have a chance at having the highest levels of renewable penetration worldwide we must enable many more projects to flourish. Legislative and non-legislative measure can include:

1. Explicit reference in the REDII of the benefits of local and community energy. And a principle which ensures the citizens right to produce, store and consume their own renewable energy. This principle is needed to prevent prohibitive taxes or administrative barriers hampering the energy transition.

Since 2003, Ernst & Young have produced 45 issues of the 'Renewable Energy Country Attractiveness Index'. The United States have been in the top two countries for all but two of the issues released. India's recent renewable energy announcements have galvanized its market and prompted reforms that are creating an attractive long-term market. China has shown the most progress over time, climbing from 19th most attractive country in Dec 2004 to commanding a place in the top two from August 2009 onwards. The UK has slipped, falling out of the top 10 for the first time as policy measures threaten its historically attractive renewables market, while Spain's already battered renewables markets fell to 25th place as, for e.g. plans to tax residential solar systems bite.

2. Empowering consumers

The European Commission's Energy Union Strategy put the consumer at the centre stage. Consumers have a key role to play in energy markets and in driving the transition to a more sustainable energy system in the EU. On 15 July 2015, the Commission issued a Communication on delivering a new deal for energy consumers (COM/2015/339)² as well as

² https://ec.europa.eu/energy/sites/ener/files/documents/1_EN_ACT_part1_v8.pdf

a guidance document on best practices on renewable energy self-consumption (SWD/2015/141).³ In this context, REDII provides opportunities to develop more targeted measures for empowering consumers, including communities and cooperatives⁴.

As active participants in the energy market, consumers should be able to self-consume and store renewable energy in the EU.

Provisions on simplified and streamlined procedures on permitting and grid connection in case of projects for self-consumption of renewable energy could be further enhanced.

The wide-spread development of self-consumption may also require gradual adjustment of retail tariffs to promote consumers' flexibility, while supporting energy efficiency and the renewable energy objectives and at the same time minimise total system costs. The establishment of common principles at EU-level for network tariff design will thus need to be considered.

Renewable energy deployments need also to observe certain rights granted to the public, by international and EU law, such as, for instance, the right to access to information, public participation and consultation, as well as access to justice on environmental matters⁵. Thus, contributing to accountability, transparency and public awareness.

The REDII also offers opportunities to foster local ownership of renewable energy (e.g. community and citizen participation in renewable energy cooperatives). It seems particularly important to support local authorities in preparing strategies for the promotion of renewable energy, enable cooperation between relevant actors at the local or municipal level and facilitate access to finance.

Under the RED, a Guarantees of Origin (GO) system provides an EU wide mechanism to inform electricity consumers as to the renewable nature of the electricity that they use, enabling green tariffs to develop but also being criticised for not sufficiently linking these tariffs to real incentives for additional new green energy deployment. It should be assessed to what extent the current rules for electricity disclosure (incl. GO) can be improved to reflect best practice in Member States' implementation and help consumers choose a more sustainable energy consumption pattern.

Questions:

11. How would you rate the importance of the following barriers for consumers to produce and self-consume their own renewable energy?

	<i>Very important</i>	<i>Important</i>	<i>Not very important</i>	<i>Not important</i>	<i>No opinion</i>
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³ http://ec.europa.eu/energy/sites/ener/files/documents/1_EN_autre_document_travail_service_part1_v6.pdf

⁴ Without prejudice to the EU and international law on the right to access to information, public participation and consultation, as well as access to justice on environmental matters.

⁵ UNECE Convention on access to information, public participation in decision-making and access to justice in environmental matters (Aarhus Convention), Directive 2011/92/EU, as amended by Directive 2014/52/EU (EIA Directive), Directive 2001/42/EC (SEA Directive).

	<i>barrier</i>	<i>barrier</i>	<i>barrier</i>	<i>barrier</i>	
<i>Self-consumption or storage of renewable electricity produced onsite is forbidden</i>	√				
<i>Surplus electricity that is not self-consumed onsite cannot be sold to the grid</i>	√				
<i>Surplus electricity that is not self-consumed onsite is not valued fairly</i>		√			
<i>Appliances or enabler for thermal and electrical storage onsite are too expensive</i>		√			
<i>Complex and/or lengthy administrative procedures,</i>	√				

<i>particularly penalising small self-consumption systems</i>					
<i>Lack of smart grids and smart metering systems at the consumer's premises</i>			√		
<i>The design of local network tariffs</i>	√				
<i>The design of electricity tariffs</i>	√				

[Box: Other? Please explain. Max 500 words]

-We recognise prosumers as energy consumers of any kind who actively participate in the energy market by also engaging in energy production or supply, either individually or collectively.

-We see the greatest potential in those prosumers who act collectively either in cooperatives⁶ or other social enterprises. By acting together prosumers can achieve greater scale, and unlock the urgent energy transition at the pace required.

-Therefore an important barrier to prosumers is any measure that makes it harder to act collectively, e.g. delays or problems in getting grid connection (e.g. parts of Scotland where the transmission grid is at capacity), or in getting power purchase agreements, unreliable national policy contexts that make it especially difficult for volunteer-led projects to plan ahead.

⁶ In the UK this includes the legal entity of so-called Community Benefit Societies.

In the last few years, the share of distributed renewable energy has substantially increased in the EU. Given the cost dynamics at retail level, this trend is very likely to continue. On-site renewable generation becomes a very concrete way for consumers to control their energy costs. At the same time, by deploying self-generation and consumption practices, consumers truly engage in the energy transition.

For all the reasons mentioned above, the revised RED should create a clear framework for renewable self-consumption and generation, including the following elements:

- **A right to self-generate and consume renewable energy:** the first pre-requisite to make sure European consumers can control their energy costs via self-generation and consumption is to make it legally possible everywhere in Europe. A clear right to self-generate, consume (and store energy) and access the grid, would therefore make discriminatory measures such as the ones developed in Spain not possible anymore.
- **Simplified administrative procedures with one-stop-shops for community energy projects and prosumers:** building on existing provisions (Article 13 of the Directive), with simple notification procedures for smaller systems (similarly to what we see in Portugal for instance) and simplified authorisation procedures for medium-size systems. By lowering administrative costs, the revised RED can make the energy transition cheaper given the increasing importance of such costs (in relative terms) over time.
- **Guidelines for the setting-up of distribution grid tariffs fit for the energy transition:** the revised RED could provide some guiding principles and explore for instance mechanisms which give the prosumer the choice of freely contracting a given peak load capacity.
- **A framework for making self-generation and consumption accessible to a large number of consumers:** third-party financing, joint purchasing programmes and cooperatives are all very concrete ways of making on-site generation more easily accessible to consumers. These should be recognised and encouraged by the revised RED.

In parallel, the revision of the Energy Efficiency Directive should further facilitate the deployment of enablers by enhancing the role of demand side flexibility and aggregation, which will be needed to develop new business models at retail level. In a similar way, the market design reform should ensure a fair access to the market for prosumers in order to properly value the excess of electricity that is not self-consumed. The market design reform should also bring clarity on the definition and the role of storage.

12. In general, do you think that renewable energy potential at local level is:

√Highly under-exploited

- Under-exploited
- Efficiently / fully exploited
- Over-exploited (i.e. beyond cost-effectiveness)
- No opinion

[Box: Other? Please explain. Has the RED been effective and efficient in helping exploiting the renewable energy potential at local level? Max 500 words]

The RED had an effect on enabling renewable energy through the national binding targets. From these flowed the national support schemes which allowed much local renewables to flourish. Nationally binding targets are the still the most stable and reliable way to ensure the energy transition.

In the absence of nationally binding targets REDII must put in place other mechanisms that can continue to be exploited to its full potential. Otherwise there is a risk of a steep drop in the confidence of investors in local energy, who are often individuals or households investing their own money and need a level of certainty.

The primary way to do this is by embedding the principle that guarantees the citizens's right to presume, store and access the grid with their own energy. This principle would give certainty required to ensure that investment continues in local renewable energy.

13. How would you rate the importance of the following barriers that may be specifically hampering the further deployment of renewable energy projects at the local level (municipalities and energy cooperatives):

	<i>Very important barrier</i>	<i>Important barrier</i>	<i>Not very important barrier</i>	<i>Not important barrier</i>	<i>No opinion</i>
<i>Lack of support from Member State authorities</i>	√				
<i>Lack of administrative capacity and/or expertise/ knowledge/information at the local level</i>	√				

<i>Lack of energy strategy and planning at local level</i>	√				
<i>Lack of eligible land for projects and private property conflicts</i>			√		
<i>Difficulties in clustering projects to reach a critical mass at local level</i>			√		
<i>Lack of targeted financial resources (including support schemes)</i>	√				
<i>Negative public perception</i>				√	

[Box: Other? Please explain. Max 500 words]

Two main barriers emerge at this stage for cooperative projects: complicated administrative procedures at local level and a lack of appropriate funding mechanisms. On the latter and given the nature of cooperative players who may have a more limited technical and financial expertise, specific mechanisms (such as power purchase agreements with local actors for instance) should be developed for the valorisation of the renewable electricity.

This being said, an increasing number of cooperatives are already developing renewable energy projects. This is a very interesting lever for local development and social fairness. The revised RED should provide more visibility to project developers by agreeing on regional or local targets for cooperative projects, as it is the case in Scotland for instance.

Gaining fair access to the grid continues to be a barrier to local energy production. Fair and equitable grid access needs to be ensured for projects which have a specific social benefit as

mentioned above. For example many local renewables projects put their profits into local community development funds or into efficiency measures for those in energy poverty. As the grid is a natural monopoly it must be run for the common good.

14. Please rate the appropriateness of stronger EU rules in the following areas to remove barriers that may be specifically hampering the further deployment of renewable energy projects at the local level :

	Very appropriate	Appropriate	Not very appropriate	Not appropriate	No opinion
Promoting the integration of renewable energy in local infrastructure and public services		√			
Supporting local authorities in preparing strategies and plans for the promotion of renewable energy		√			
Facilitating cooperation between relevant actors at the local or municipal level		√			

Facilitating access to targeted financing	✓				
EU-wide right to generate, self-consume and store renewable electricity	✓				
Measures to ensure that surplus self-generated electricity is fairly valued		✓			
Harmonized principles for network tariffs that promote consumers' flexibility and minimise system costs		✓			

[Box: Other? Please explain. Max 500 words]

A EU-wide right to self-generate, self-consume and store is a pre-requisite in order to develop renewable energy at the local level. This is simply reflecting the fact that local production has an increased value (from a system perspective) if it is consumed locally and not transported over long distances. As suggested in our response to question 11, the revised RED should play a key role by facilitating access to finance, ensure a proper remuneration of the non-self-consumed electricity and by ensuring that network tariffs do not hamper the transition to a more prosumer-centric system. We also see the right to

access the grid as an important facet of such a principle, to allow the citizen to actively participate in the energy market as set out in the vision for the energy union (Feb 2015).

15. *Should the current system for providing consumers with information on the sources of electricity that they consume be further developed and improved?*

[Box: If not, why? If yes, how? Should the current Guarantees of Origin (GO) system be made the mandatory form of information disclosure to consumers? Should other information, such as e.g. CO₂ emissions be included? Should it be extended to the whole energy system and include also non-renewable sources? Other ideas? To what extent has the current GO system been successful in providing consumers with information on the sources of electricity that they consume? Max 500 words]

Very few consumers are aware of *Guarantees of Origin* (GOs) and not all countries are part of GO systems but in general maximising info available on all energy sources is a good idea.

A main problem is that GOs do not guarantee the final consumer that by going for a green offer, (they contribute to the development of new renewable energy capacities. In order to address this "lack of additionality", a new specific, additional "layer" should be added to the GO system which would allow to differentiate between offers relying on renewable energy coming from already written-off investments and offers which do rely on more recent investments.

The guarantees of origin system could be used beyond just tracing general types of renewables. More information on bioenergy feedstock and potential ecological impacts of renewable energy could be added so that it could also help the transparency needs in terms of the sustainability demands and provide consumers with relevant information. For example EKOenergy, a European label for green electricity, uses GO information to sell biodiversity friendly renewable energy.

3. Decarbonising the heating and cooling sector

Renewable heating and cooling can make a real difference for the decarbonisation of the EU economy and enhance EU security of supply. While cost-effective renewable energy equipment is available, 80-90% of the EU heat and hot water production is still using largely imported gas and oil. The RED includes limited provisions for the promotion of renewable heating and cooling. In REDII, more targeted measures could be considered to further increase renewables deployment in the heating and cooling sector, building on and interacting with energy efficiency and security of energy supply legislation. A comprehensive approach could be developed targeting buildings, individual energy use for heating and cooling, and the share of renewable energy in district heating and CHP units.

Efficient ways need to be found to stimulate switching from fossil fuels to renewable heating and cooling and hot water generation in the large number of EU homes with individual heating equipment. The existing nearly-zero energy building (NZEB) standards (mandatory from 2021 for all new building) include obligations for minimum use of renewable energy. It appears however that this is insufficient to further encourage the use of renewables at the building level. It could therefore be considered whether the NZEB rules should be made more ambitious to also include an obligation to use renewable energy heating (including water heating) and cooling in the existing building stock, effective if and when the building is subject to major renovation or the heating system is replaced. Measures will also need to encourage a shift in consumer behaviour, perhaps through better information about renewable energy alternatives from heating equipment suppliers and installers, and encourage investment in energy storage and demand-shifting capacity. Although district heating systems only cover 13% of the European heat market, in Nordic, Central and Eastern European Member States 50-80% of the heating is produced by district heating. Most of this heating is produced from imported natural gas, followed by coal, and renewables. In these Member States, measures to increase the share of renewable energy in heating and cooling supply could bring significant gains. For example, it could be assessed whether, based on comprehensive assessments of national heating and cooling potentials, energy suppliers could potentially be required to progressively increase the share of renewable energy in the overall energy that is placed on the market for heating and cooling purposes, taken into account the market incentives already available for this sector. It could also be assessed whether all new and significantly upgraded heating and cooling infrastructure should enable at least a certain share of all heating, cooling and hot water needs to be sourced from renewable energy sources produced on site or nearby (through local networks).

The potential for renewable energy in decarbonising the heating and cooling sector will also be addressed within the forthcoming Heating and Cooling Strategy and Security of Energy Supply proposals, while sustainability aspects will be addressed through the post-2020 EU bioenergy sustainability policy.

Questions:

16. Please rate the importance of the following barriers in hampering the deployment of renewable heating and cooling in the EU:

	<i>Very important barrier</i>	<i>Important barrier</i>	<i>Not very important barrier</i>	<i>Not important barrier</i>	<i>No opinion</i>
<i>Real or perceived incoherence in existing EU policies (such as</i>		√			

RED, EED and EPBD)					
Lack of administrative capacity and/or expertise/knowledge/information at the national and local level					
Lack of energy strategy and planning at the national and local level					
Lack of physical space to develop renewable heating and cooling solutions				√	
Lack of requirements in building codes and other national or local legislation and regulation to increase the share of energy from renewable sources in the building sector	√				
Heating and cooling equipment installers lack sufficient knowledge or information to offer renewable energy alternatives when asked to replace fossil fuel heating and					

<i>cooling equipment</i>					
<i>Lack of targeted financial resources and financing instruments</i>	√				
<i>Lack of definition and recognition of renewable cooling</i>					
<i>Lack of electricity market design supporting demand response, decentralised energy and self-consumption and thermal storage in buildings and district systems</i>	√				
<i>Lack of mapping tools to identify the resources potential at regional scale with local renewable energy</i>	√				
<i>Lack of tools and information to compare the lifecycle costs of the various alternative heating and cooling alternatives</i>					
<i>Negative public perception</i>				√	

[Box: Other? Please specify and explain. Max 500 words]

The “at least 27%” renewables target put forward by the Council would mean that almost 50% of the EU’s electricity would come from renewable sources, with an increasing share of them being variable. At the same time, we see an increasing trend towards decentralisation. In order to make the energy system more cost-efficient as whole, we definitely need to improve (compared to the current RED) the interactions between the electricity, heating and cooling and transport sectors. The reform of the EPBD and EED should ensure a better link between decentralised power generation, and demand shifting and thermal storage capacities in buildings and district systems.

Efficiency, energy savings and minimising the need for heating and cooling through building design should always be the first option in the heating and cooling sector. These options should never be overlooked or given less priority even when there is a renewable energy source for heating or cooling.

Currently, bioenergy is the most important renewable energy source in heating, but possibilities to increase the use of bioenergy in an environmentally sustainable way are limited in Europe. Therefore, renewable electricity, solar thermal etc. need to be promoted rather than relying solely on biomass. As the majority of bioenergy is consumed in the heating sector, a robust bioenergy sustainability policy is needed to ensure sustainable renewable energy use in this sector.

17. Please rate the most effective means of addressing these barriers and advancing the decarbonisation of EU heating and cooling supply:

	<i>Very effective</i>	<i>Effective</i>	<i>Not very effective</i>	<i>Not effective</i>	<i>No opinion</i>
<i>Renewable heating and cooling obligation⁷</i>					

⁷ ‘Renewable energy obligation’ means a national support scheme requiring energy producers to include a given proportion of energy from renewable sources in their production, requiring energy suppliers to include a given proportion of energy from renewable sources in their supply, or requiring energy consumers to include a given proportion of energy from renewable sources in their consumption.

<p><i>Requirement for energy suppliers and/or distributors to inform consumers of the costs of heating and cooling and to offer renewable heating and cooling solutions</i></p>					
<p><i>Requirement that all urban and municipal infrastructure upgrades (energy infrastructures, and other relevant infrastructure, such as sewage water, water and waste chains) make it possible and promote the distribution and use of renewable energy for heating and cooling and hot water generation</i></p>					
<p><i>Measures supporting best practices in urban planning, heat planning,</i></p>					

<i>energy master planning, and project development</i>					
<i>Criteria and benchmarks for promoting district heating and cooling taking into consideration the local and regional conditions</i>					
<i>Nearly zero-energy building (NZEB) standards to include a mandatory minimum use of renewable energy</i>	√				
<i>Including systematically renewable energy production in buildings' energy performance certificates</i>					
<i>The promotion of green public procurement requirements for</i>					

<i>renewable heating & cooling in public buildings</i>					
<i>Heating and cooling equipment installers should present renewable energy alternatives when asked to replace fossil fuel heating and cooling equipment</i>					
<i>Develop best practices for enterprises, including SMEs, to integrate renewable heating and cooling into their supply chains and operations</i>					
<i>Requirement to consider renewable energy alternatives in subnational, national, regional or EU security of supply risk preparedness</i>					

<i>plans and emergency procedures</i>					
<i>Targeted financial measures</i>					

[Box: Other? Please specify and explain. How could such measures be designed? How could they build on existing EU rules? Max 500 words]

4. Adapting the market design and removing barriers

A separate public consultation, which was open during the period 15 July – 8 October 2015, gathered extensive input on a wide range of issues aimed inter alia at making the market design fit for renewables. This section includes complementary questions. Both public consultations will inform policy makers during the development of REDII.

Changes in the market provisions are of utmost importance in order to build a market which is fully fit for renewables. For example, the establishment of liquid and better integrated short-term intraday and balancing markets will help to increase flexibility and help renewable energy producers to integrate in the market and compete on an equal footing with conventional energy producers, while the strengthening of the EU ETS can contribute to reinforce the long term investment environment.

The RED includes obligations to ensure transparent and foreseeable grid development for renewable energy as well as predictable, transparent and non-discriminatory grid connection and access procedures and costs. REDII as well as the Commission's market design initiative offers opportunities to update and improve these rules to take account of market developments and experience gained. Consideration also needs to be given to dispatch provisions in close connection with the development of the market design initiative.

The on-going evaluation of the Renewable Energy Directive (REFIT) shows that overall progress in removing non-financial barriers to renewable energy deployment in EU Member States is still limited and slow across the EU despite the specific provisions on administrative procedures, regulations and codes for renewable energy projects, requirements to share information and ensure quality of renewable energy training enshrined in the RED. Other studies point towards the same conclusion. It is reasonable to assume that there is therefore a need for more harmonized EU rules in a number of areas, including permitting procedures, spatial and environmental planning and vocational and professional training.

Note should be taken of already existing legal provisions and practice for streamlining and improving permit granting processes, in particular the provisions laid down in Regulation 347/2013 (TEN-E Regulation) and Directive 2011/92/EU (EIA Directive). Given the existing internal energy market, it is important to ensure that streamlining and improving the permitting granting processes is performed in accordance with existing internal EU legislation, as well as with due regard to the principle of subsidiarity and the national competences and procedures enabling renewable energy deployment. More effective and efficient administrative procedures should not compromise the high standards for protection of the environment and public participation. The establishment of a competent authority or authorities integrating or coordinating all permit granting processes ('one-stop-shop') should reduce complexity, increase efficiency and transparency and help enhance coordination among Member States.

Questions:

18. In your view, which specific evolutions of the market rules would facilitate the integration of renewables into the market and allow for the creation of a level playing field across generation technologies? Please indicate the importance of the following elements to facilitate renewable integration:

	<i>Very important</i>	<i>Important</i>	<i>Not very important</i>	<i>Not important</i>	<i>No opinion</i>
<i>A fully harmonised gate closure time for intraday throughout the EU</i>	√				
<i>Shorter trading intervals (e.g. 15 min)</i>	√				
<i>Lower thresholds for</i>	√				

<i>bid sizes</i>					
<i>Risk hedging products to hedge renewable energy volatility</i>		√			
<i>Cross border capacity allocation for short-term markets (i.e., some capacity being reserved for intraday and balancing)</i>		√			
<i>Introduction of longer-term transmission rights (> 3 years)</i>		√			
<i>Regulatory measures to enable thermal, electrical and chemical storage</i>	√				
<i>Introduction of time-of-use retail prices</i>		√			

<p><i>Enshrine the right of consumers to participate in the market through demand response</i></p>	<p>✓</p>				
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[Box: Any other view or ideas? Please specify. Max 500 words]

Harmonised gate-closure time across the EU with shorter trading intervals should get the highest priority.

Ensuring a fair market access for all players is also important: in some markets, decentralised renewable energy generators still have to struggle with market access fees that effectively discriminate against smaller players.

Making sure that small players will be able to participate in the market also means that aggregators should be able to rely on a clear and stable regulatory framework.

Finally and as mentioned previously, the market reform should also be the occasion to clarify and enhance the role of storage for electricity (under various forms).

19. *Currently, some exceptions from the standard balancing responsibilities of generators exist for energy from renewable sources. In view of increasingly mature renewable generation technologies and a growing role of short-term markets, is time ready to in principle make all generation technologies subject to full balancing responsibilities?*

- Yes, in principle everyone should have full balancing responsibilities*
- No, we still need exemptions*

[Box: Please specify: If exemptions remain necessary, please specify if and in which case and why exemptions would still remain necessary (e.g. small renewable producers, non-mature technologies)? Max 500 words]

For variable renewable energy sources, full balancing responsibilities on large variable renewable generators can be envisaged only once the following market reforms are

completed (if not, we would put the cart before the horse as variable generators would not be able to properly and fully reduce their imbalances):

- short-term markets (with very short gate closure times) should be fully developed;
- a greater granularity of products on the balancing markets is ensured.

For small-scale, local producers, it is not realistic to expect them to play on the market. Their balancing responsibility will therefore have to be borne by a third party which will most probably charge a lump sum to the prosumer whatever his/her real generation/load profile. This raises the question of how to ensure that the prosumer will get the certainty that the third party will efficiently reduce the imbalances within a given portfolio and how the imbalance costs will be shared within this portfolio.

20. Please assess the importance of stronger EU rules in the following areas to remove grid regulation and infrastructure barriers for renewable electricity deployment:

	<i>Very important</i>	<i>Important</i>	<i>Not very important</i>	<i>Not important</i>	<i>No opinion</i>
<i>Treatment of curtailment, including compensation for curtailment</i>	√				
<i>Transparent and foreseeable grid development, taking into account renewable development and integrating both TSO and DSO level and smart</i>	√				

<i>technologies</i>					
<i>Predictable transparent and non-discriminatory connection procedure</i>	√				
<i>Obligation/priority of connection for renewables</i>	√				
<i>Cost of grid access, including cost structure</i>		√			
<i>Legal position of renewable energy developers to challenge grid access decisions by TSOs</i>			√		
<i>Transparency on local grid congestion and/or market-based incentives to invest in uncongested areas</i>		√			

[Box: Comments and other ideas, including whether there are any consideration concerning gas from renewable energy sources, for instance expansion of gas infrastructure, publication of technical rules, please explain. Max 500 words]

Access to grid is a key barrier to allowing local and community energy projects to proceed at the scale required. This includes the cost and procedures involved to obtain permission from Distribution Network Operators (DNOs) to connect, as well as a lack of protection for community groups and transparency in relation to limited grid capacity. A community project in the UK applied for grid connection for a hydro installation of a particular size. After being granted permission, having paid relevant fees, installed the hydro system and connected it to the grid, the DNO retrospectively halved the capacity permitted to be fed into the grid, as the new connection was causing 'spikes' in the system. In another example, two neighbouring communities of similar characteristics, decided to build a wind turbine each to generate some income for local development initiatives. Within a week or so of one another, both communities applied for grid connection with the local DNO. The first community was granted permission, the second was told that the grid was now at capacity and missed out. We call for a right not just for self-consumptions but also to access (and where appropriate decentralised ownership of) the grid for social and cooperative projects free from prohibitive charges and administrative barriers.

21. Which obstacles, if any, would you see for the dispatching of energy from all generation sources including renewables on the basis of merit order principles? Should there be any exemptions in some specific cases?

- Yes, exemptions are necessary
 No, merit order is sufficient

[Box: Please specify: If yes, in which case and why? What are the lessons from the implementation of RED? Max 500 words]

It is of utmost importance that the principle of **priority access and dispatch** enshrined in the current RED should be maintained after 2020. Indeed, according to the merit order, in theory, electricity produced from renewable-based power plants should be the first one to be sold on the market and to be taken up by the grid. If network issues (i.e. grid constraints) arise, it however appears much cheaper and simpler to scale down renewable energy generation than inflexible nuclear or coal power plants. In a way, inflexible power plants benefit from a "de facto" priority dispatch. This will continue to act as a blocking force for new entrants, especially having in mind that the EU should, according to the target put forward by the Council, reach a legally binding share of at least 27% of renewables (which translates into almost 50% of renewable power) in our final energy consumption in 15 years from now. The inflexible character of must-run capacities will therefore become an increasing challenge for the achievement of the 2030 renewables target, and the priority

dispatch can be extremely useful (even more now than yesterday) to ensure that we can meet this target.

22. Please assess the importance of stronger EU rules in the following areas to remove administrative barriers to renewable energy deployment:

	<i>Very important</i>	<i>Important</i>	<i>Not very important</i>	<i>Not important</i>	<i>No opinion</i>
<i>Creation of a one stop shop at national level to allow for more streamlined permitting procedures</i>	√				
<i>Online application for permits</i>		√			
<i>A defined maximum time-limit for permitting procedures, and effective consequences if deadline is missed</i>	√				
<i>Harmonisation of national permitting</i>			√		

<i>procedures</i>					
<i>Special rules for facilitating small-scale project permitting, including simple notification</i>	√				
<i>Pre-identified geographical areas for renewable energy projects or other measures to integrate renewable energy in spatial and environmental planning</i>	√				

[Box: Any other views or ideas? To what extent has the RED been successful in reducing unnecessary administrative barriers for renewable energy projects in the Member States? Please specify. Max 500 words]

Progress on removal of administrative barriers has so far been one of the areas of significant under implementation. Hence, these provisions should be further strengthened in a revised RED. Administrative costs (permitting) represent a still untapped potential for reducing cost of renewables, and a very low-hanging fruit to be considered in the revised RED.

A suggestion would be to require the setting up of a one-stop shop (at national or sub-national level) to coordinate administrative processes in order to create a single permit procedure. This and all the measures suggested above should be pursued as matter of priority, simply because they can substantially decrease the cost of renewables - without

involving any financial support. National authorities and network operators should issue consent and connection of renewable generators within shorter and defined time-limits.

23. Please identify precise challenges with regard to grid regulation and infrastructure barriers in EU Member States that you are aware of.

[Box: Max 500 words]

24. How would you rate the administrative burden and cost of compliance with the RED for national, regional and local authorities?

	Very important	Important	Not very important	Not important	No opinion
Administrative burden			√		
Cost of compliance			√		

[Box: Please explain. How could the administrative burden and cost of compliance be reduced in the period after 2020? Max 500 words]

In some Member States, difficulties faced by small project developers reviewing the reasons for the long duration until being granted or, in some cases, being refused grid connection remain a significant problem regarding grid regulation. In Germany, the Clearingstelle EEG, a clearing panel to deal with disputes regarding the Renewable Energy Sources Act, can act as a mediator. The introduction of similar institutions by other Member States could be a solution to improve grid regulation.

A further problem is the management of interconnections according only to the economic interests of the transmission system operators, which leads to lack of grid efficiency.

25. Please rate the importance of stronger EU rules in the following areas to remove barriers relating to renewable energy training and certification:

	Very important	Important	Not very important	Not important	No opinion
<i>Incentives for installers to participate in certification/qualification schemes</i>		✓			
<i>Increased control and quality assurance from public authorities</i>		✓			
<i>Understanding of the benefits and potential of renewable technologies by installers</i>			✓		
<i>Mutual recognition of certificates between different Member States</i>		✓			

[Box: Comments, other ideas, please explain. To what extent has the RED been successful in reducing unnecessary training and certification barriers in the Member States? Max 500 words]

26. How can public acceptance towards renewable energy projects and related grid development be improved?

[Box: Max 500 words]

Research shows that citizen engagement in renewable energy projects plays a large role in acceptance, when communities or citizens are engaged they can go from simply tolerating a project to actively supporting and feeling favourably towards it. Therefore the measures mentioned earlier such as a right to presumption, storage and the grid is important.

Support should be the goal, not 'acceptance'. More strategic planning to minimise impacts and public consultation will help to build legitimacy. Better enforcement of environmental law and weeding out the most damaging projects, will help to gain support and confidence of citizens. Environmental engagement should be supported in early stages of grid planning. More support should be awarded for micro-generation, self-consumption etc., and opportunities to invest in infrastructure projects, to give citizens more of a stake in local development and energy transitions.

Better communications campaigns to raise awareness of the impacts of climate change, and why this requires renewable energy and grid development, are needed.

5. Increase the renewable energy use in the transport sector

Decarbonisation and the replacement of fossil fuels is particularly challenging in the transport sector. 94% of EU transport relies on oil products, of which 90% is imported and represents a growing share of carbon emissions. Against this background, the October 2014 European Council invited the European Commission to further examine instruments and measures for the transport sector, including the promotion of energy from renewable energy sources.⁸

According to European Commission estimates, a significant contribution from renewable transport fuels will be required to meet the overall EU 2030 decarbonisation targets⁹. To achieve this, measures will need to be put in place to require an increased market up-take and deployment of sustainable low-carbon biofuels. In addition, alternative renewable fuels, renewable electricity in battery powered electric vehicles and hydrogen in fuel cell vehicles, is required.

For example, further use could be made of incorporation obligations, dedicated financing (in particular in the heavy duty transport and aviation industry) and measures to increase access to smart energy services and infrastructure and promote the development of advanced renewable fuels which are not based on food crops. Special care needs to be taken to remove current market distortions and fragmentations of the EU internal market.

Questions:

28. *To what extent has the RED been successful in addressing the following EU transport policy objectives?*

⁸ The current 10% renewable energy target in the transport sector will not be continued in the period after 2020.

⁹ The 2030 Impact Assessment of January 2014 estimated that achieving the agreed 2030 framework objectives would require a contribution of 14-16% renewable energy in transport.

	<i>Very successful</i>	<i>Successful</i>	<i>Not very successful</i>	<i>Not successful</i>	<i>No opinion</i>
<i>Contribute towards the EU's decarbonisation objectives</i>				√	
<i>Reduce dependency on oil imports</i>			√		
<i>Increase diversification of transport fuels</i>			√		
<i>Increase energy recovery from wastes</i>			√		
<i>Reduce air pollution, particularly in urban areas</i>				√	
<i>Strengthen the EU industry and economy competitiveness</i>				√	
<i>Stimulate development and growth of innovative</i>				√	

<i>technologies</i>					
<i>Reduce production costs of renewable fuels by lowering the level of investment risk</i>				✓	
<i>Facilitate fuel cost reduction by integration of the EU market for renewable fuels</i>				✓	

[Box: Any other view or ideas? Please specify. Max 500 words]

The RED target is a quantity target and not a quality target. There are GHG savings threshold that biofuels have to meet in order to be used to meet the RED target, but there is no differentiation between different renewable fuels in terms of GHG emissions, like under the (FQD) target, for example. As a result, the RED did not incentivise the best solutions for the climate in the transport sector.

The RED target for transport has been a big driver of crop-based biofuels and the 10% target is expected to be mostly met by using these. However, there are big differences in GHG savings between different renewable fuels. The RED calculation methodology does not take into account some of the indirect emissions induced by the promotion of these biofuels. If XXXXX (ILUC) emissions are taken into account, some form of biodiesel can have a worse GHG footprint than the fossil diesel it is supposed to replace. In that sense the RED target has not really delivered regarding the objective of decarbonising transport.

Other renewable fuels like electricity have not really been pushed into the market by the RED. Neither the incentives (multiple counting) for these alternative fuels, nor the methodology employed to take their uses into account, were clear enough.

Overall, the technology neutrality approach within the RED sub-target for transport has failed by promoting crop-based biofuels at the expense of more sustainable fuels, such as renewable electricity.

Regarding the reduced dependency on oil imports, the RED created a new dependency, this time because of the need to import more vegetable oil as a compensation for the huge amount of EU vegetable oil now being used for biofuels and also biofuels' feedstocks.

29. Please name the most important barriers hampering the development of sustainable renewable fuels and renewable electricity use in transport?

[Please explain, and quantify your replies to the extent possible. Max. 500 words.]

The concept of technology neutrality has been promoted, but with incorrect parameters in place, including wrong carbon accounting (no inclusion of ILUC for biofuels). Some negative effects of the biofuels push by the RED were already known at the time when the RED was adopted, but these had not been quantified yet. Instead of waiting and ensuring predictable rules for many years to come, the EU chose to go ahead with incentivising the wrong solutions and then had to make a U-turn last year by adopting a cap on land-based biofuels. This was a positive political signal that recognised the negative effects of the EU biofuels policies. However, it also shows that such early and not enough informed choices should be avoided in the future.

Regarding renewable fuels made from waste and residues that are presumably delivering more GHG savings than crop-based biofuels, the RED did not provide the right framework to correctly capture the diverse parameters of their use in transport. First, the RED did not include a specific carbon performance metric that would differentiate biofuels based on their GHG savings and therefore did not incentivise the ones with the highest savings. In addition, it did not include a robust sustainability framework to take into account elements other than GHG savings (waste hierarchy, soil fertility, etc.).

One of the barriers for the development of the most sustainable solutions was also the lack of coherence in policy framework. By, for example, not fully taking into account some issues related to competing uses, the existing provisions in the waste framework directive, or not having enough impact assessments about the concrete impacts on land, resources used, etc. The discussions around renewables in transport have been too detached from the discussion around existing frameworks and impacts on the ground, both within and outside the EU

30. Please rate the most effective means of promoting the consumption of sustainable renewable fuels in the EU transport sector and increasing the uptake of electric vehicles:

	Very effective	Effective	Not very effective	Not effective	No opinion
<i>Increased use of certain market players' obligations at Member State level</i>					
<i>More harmonised promotion measures at Member States level</i>		√			
<i>The introduction of certain market players' obligations at the EU level</i>					
<i>Targeted financial support for deployment of innovative low-carbon technologies (in particular to the heavy duty transport and aviation industry)</i>		√			
<i>Increased access to energy system services (such as balancing and voltage and frequency support</i>		√			

when using electric vehicles)					
Increased access to alternative fuel infrastructure (such as electric vehicle charging points)	√				

[Box: Any other view or ideas? Please specify. Max 500 words]

The multiple choice questions above are very difficult to answer if there is no clear indication of what kind of renewable fuels are concerned. In the case of electricity, market players' obligations would help a lot to ensure that car manufacturers have to offer a certain % of zero-emissions vehicles, for example. For biofuels, this could lead to blending mandates – a volume approach again - and therefore would not solve the current problem. What is needed here instead, is a holistic and multifactorial approach that puts emphasis on qualitative factors instead of a single quantitative dimension.

Based on the results and impacts of the current RED, it is clear that there should not be a new dedicated transport target in the RED.

The EU should build on the 7% cap for limiting and progressively phasing out the amount of land-based renewable fuels, such as rapeseed, soy biodiesel, energy crops, etc. that can be put on the market at EU level. The 7% cap should be progressively lowered.

Regarding advanced biofuels, including non-land based fuels such as wastes residues, support at EU level should be based on environmental and climate criteria., Overall, this should assess the quality of the biofuels produced, taking into account the limited availability at sustainable levels of some of the waste and residues. Quantity should not be a priority when it comes to resource-based energy, because of the risk of detrimental effects on the environment, land rights, etc..

If we look at decarbonising transport fuels in general, a regulation could be a better tool, to directly regulate the quality of fuels supplied by fuel suppliers, based on GHG savings, but also other parameters linked to environmental impacts. By using blending mandates for liquid fuels one loses the flexibility to choose how to reach a target and the system excludes de facto other renewables (solar, etc.).

Based on the lessons learned from the current EU fuels policies, it seems crucial to put in place a review, for example in 2025 – to ensure that there are progressive checks of the policy's impacts and that any measure that would not help fulfil the EU long-term goals is reviewed on time to avoid detrimental impacts, whether it relates to the climate, the environment, land use, etc. We need to avoid repeating the same mistakes associated with current transport targets under the RED.

Regarding electric vehicles, an obvious barrier today is the lack of proper recharging infrastructure. This has been partially addressed by the Regulation of Alternative Fuels Infrastructures, but a holistic view should be developed in order to fully grasp the synergies between the power and the transport sector.

In addition, urban design needs to help incentivise low carbon and active transport, thereby reducing the overall need for liquid fuels.

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