

Cefic Response to EC Consultation on the Preparation of a new renewable energy directive for the period after 2020

Executive Summary

Cefic supports the use of competitive renewables to help mitigate climate change and improve energy security. Their development and integration in to the system should follow the principles of energy and climate policy and seek to balance sustainability, security of supply and competitiveness.

For industry it is imperative to deliver a healthy and inviting investment climate which can stimulate growth and with it employment, to the wider benefit of the EU. As a key solutions provider to sustainable low carbon economies, the EU chemical industry welcomes efforts that allow for us to contribute to the energy and climate transition, whilst keeping our industry in good shape, and making the EU an attractive place in which to operate.

Up to now the aims of the Renewable Energy Directive have not always been executed in a cost-efficient manner. The EU and Member States are strongly encouraged to coordinate and cooperate on how best to further integrate renewable energy in to the system whilst avoiding distortion to the energy market, raw materials markets, improving grid stability, and delivering lower consumer costs. The creation of long-term priorities and visions for decarbonising the energy system up to 2050 are important in order to define cost-efficient ways to reach the EU's goals.

Policy coordination, carried out in a transparent way, across a number of energy and climate dossiers is needed in order to deliver distortion-free energy and CO₂ markets, progress in energy efficiency, the recognition of CHP as an important electricity and heat producer, and the fostering of research & innovation to reduce the impact of variability e.g. demand-side response, storage solutions and low-cost flexible back-up options. EU energy policy should also support that consumers are well informed and have access to all information which has an impact on their final bill.

We advocate that renewable energy should be developed as an integral part of the broader energy system, and therefore be a full participant in the energy market. In this respect support schemes and incentives should be phased-out and be shifted to targeted R&I developments.

The EU should create a level playing-field in the market for all bio-based industries using and competing for the same raw materials and ensure that all players in the bio-economy are taken into account in relation to the objectives of the RED and related EU legislation. All bio-based industries should be recognised as being able to contribute towards the EU objective of reducing greenhouse gas emissions.

1. General approach

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>
		X		

Whilst Cefic does not support binding renewable energy (RE) targets to 2030, we support the use of cost competitive renewable energy - recognising it can contribute to mitigating climate change and improving energy security.

RE development however, should not endanger the global competitiveness of the European Chemical Industry (ECI), a key partner in the development of low carbon technologies, environmental solutions and the development of sustainable products that play a crucial role in the energy transition. In order that we can contribute fully to this it is not only important to keep our industry in good shape, but also to keep it in Europe. Effective energy and climate policy goes hand in hand with a healthy and attractive investment climate which can stimulate industrial investment, growth and jobs to the wider benefit of the EU. As such, EU policy must harbour the inter-linked aims of sustainability, security of supply, and competitiveness.

The RED's aims have not always been executed in a cost-efficient manner with uncoordinated RE support mechanisms across Member States (MS) leading to distortions in the energy markets, raw materials markets, reduced grid stability, and increased consumer costs (both direct and indirect). Support schemes have not always taken into account the development path of technologies which has resulted in over-subsidisation, and a cost-inefficient way to meet RE targets along with the failure to integrate RE in the market.

It should also be kept in mind that in order for RE to contribute fully to security of supply, its intermittency must be off-set by increased storage and back-up capacities – which in turn increases system costs.

Innovation is necessary to reduce direct and indirect costs. Adapting the pace of RE development to the pace of innovation and development e.g. in the fields of demand side response (DSR) and storage, is necessary in order to reach the ambition of the Energy Union on security of supply and competitiveness.

With the increasing share of RE the more relevant the question on priority access to the grid. RE and CHP (in particular industrial CHP) plants should be treated on an equal footing as the risk continues to exist that because of RE, highly efficient CHP plants are becoming financially uncompetitive. This may result in the shutting down of CHPs, and the stopping of manufacturing processes which depend on CHP steam production.

Renewable raw materials such as animal fats, vegetable oils, crude tall oil, etc. are used in the chemical industry. The EU should ensure a level playing field in the market for all bio-based industries using and competing for the same raw materials and ensure that all players in the bio-economy are taken into account in relation to the objectives of the RED & related EU legislation. All bio-based industries should

be recognised as being able to contribute towards the EU objective of reducing GHG emissions. The EU should ensure that the promotion of RE should avoid conflicts between different uses of bio-based raw materials, and all industrial users of bio-based raw materials should have fair and equal access to them.

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:*

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

The ECI is a solution provider to sustainable low carbon economies. We make products that enable advances in energy storage, energy efficiency (EE), material designs for better gas & electricity networks, bio-based products with a low carbon footprint, and help innovate down the costs of low carbon technologies.

The EU should ensure coherent energy & climate policy reflecting the principles of sustainability, security of supply, and competitiveness. Important tools for reaching these objectives are a properly functioning consumer-orientated energy market, trading of CO₂ allowances for ETS sectors, EE, and the development of innovative renewable energies. Also necessary are technologies that can help mitigate the variability of RE such as energy storage, DSR, flexible back-up systems e.g. gas engines, etc. Many of these require R&I funding.

The fostering of strong cooperation between industry, government, research institutes and higher education bodies is an important precondition to stimulating investment. The role of government is to provide the most favourable conditions for investors, not only by providing financial R&I support with a focus on innovative technologies, but also in tightening the conditions for the environmental

specifications of products (materials and performance e.g. on buildings). At the same time governments should be dissuaded from intervening in and distorting the market.

REDII and the new market design dossier must analyse and represent how the market can deliver competitive prices as well as adequacy whilst allowing for the expansion of RE.

As such we advocate that RE should be developed as an integral part of the broader energy system, and therefore be a full participant in the energy market. In this respect subsidy schemes and incentives should be phased-out. RE energy providers do not presently pay the costs they impose on the system due to their intermittency, e.g. by paying (total) imbalance costs. As a result renewable electricity finds its way to the market at a non-cost reflective level leading to adulterated market prices. Consequently investments are not carried out delivering an energy system which is cost-inefficient. RE technologies should be required to take on the same responsibilities as other generation, not least as regards balancing obligations and grid connection costs.

It is essential that a holistic and harmonised approach to the bio-based industry is taken when MS are putting into place their national energy and climate plans. This is needed to ensure that all industry sectors of the bio-economy can compete on equal terms for their key raw materials and contribute to mitigating GHG emissions, without only certain industries being favoured. In order to provide industries and operators with more transparency and predictability as to the status of materials/substances, it is essential to establish harmonised definitions and classifications at the EU level. Furthermore, to achieve greater harmonisation and simplification of the legal framework, coherence between the RED and other related EU legislative acts e.g. WFD, needs to be ensured. In this way, EU legislation should also fulfil the objective of putting in place better regulation for citizens and companies.

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.*

	<i>Very important</i>	<i>Important</i>	<i>Not very important</i>	<i>Not important</i>	<i>No opinion</i>
<i>Long-term priorities and visions for decarbonisation and renewable energy up to 2050</i>		X			
<i>In relation to national/regional natural resources, specific technology relevant trajectories for renewable energy up to 2030</i>		X			
<i>Overview of policies and measures in place and planned new ones</i>		X			
<i>Overview of renewable energy trajectories and policies to 2050 to ensure that 2030 policies lie on the</i>				X	

<i>path to 2050 objectives</i>					
<i>Qualitative analysis</i>		X			
<i>Trajectories for electricity demand including both installed capacity (GW) and produced energy (TWh)</i>			X		
<i>Measures to be taken for increasing the flexibility of the energy system with regard to renewable energy production</i>	X				
<i>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</i>	X				

There should be greater transparency in both EU and MS climate and energy policy decision-making. The creation of long-term priorities and visions for decarbonising the energy system up to 2050 are important in order to identify total system costs and network infrastructure needs and to define cost-efficient goals. Likewise, RE new build should be carefully planned taking in to consideration suitable geographical location, access to the grid, and local demand. All energy policy measures should strictly adhere to the principles of sustainability, competitiveness and security of supply.

It is important to ensure coherence and coordination in the expansion of RE on the one hand and the development of necessary supporting infrastructures and measures that will allow for the greater roll-out of RE on the other. For example, storage and backup are necessary to develop a reliably functioning energy system built on RE but this must be done in parallel with the development of renewable electricity.

Some potential exists in Europe's energy intensive chemical industry for voluntarily and appropriately compensated market-based DSR which should be developed in parallel for all consumers who wish to participate whilst avoiding unrealistic expectations on any one sector. DSR however, is not the only, nor necessarily the best-placed long-term solution to adequacy, or security of supply. The necessary investments for security of supply and network stability cannot simply be passed on to the end consumers. Whilst DSR has a role to play, it is only with a balanced energy mix, long-term energy policy vision that includes investment in the development of innovative low carbon technologies and energy storage, that will help ensure security of supply, network stability and reliability.

Additionally, a difference should be made between targets for renewable heat and renewable electricity. For renewable heat the options are currently limited to the use of biomass. In that sense, research and innovation is needed in order to both use the energy content of the materials in a more optimal way. CHP should be further recognised as a solution in industrial, district-heating and individual building applications. It is a powerful technology to convert fuels in the most efficient way into electricity and useful heat, helping to meet energy demand with reduced primary energy consumption and less CO₂ emissions in Europe.

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

Subsidies and incentives should be phased-out as soon as possible in order to integrate RE in the market and decrease system costs. The ECI competes globally, and as such its competitiveness is in a major part dictated by the cost of energy. The high costs paid for by industrial consumers as support for RE as well as distortion of the raw materials markets has had negative consequences for chemicals production and investment in Europe, for downstream manufacturing, local employment, global environmental performance and innovation. Energy costs are already higher in the EU than in the majority of competing industrialised regions around the world due to a combination of geography, expensive subsidy, incentive & support schemes and MS energy levies & taxes. Distortions to the internal energy and raw materials markets that exclude consumer choice and competition should be removed. Innovation should be pursued in order to lower costs.

As stressed by Commissioner Vestager, government subsidies and incentives must not distort the playing field in Europe's Single Market. Furthermore, any subsidies and incentives granted must be well-designed since, when "the technologies mature and become cheaper, the case for government support is weaker". In addition, EU Member States should not continue to subsidise products whose manufacturing is uneconomical nor environmentally justifiable.

Taking this in to account, the harmonisation of MS subsidy schemes and incentives may be the best first step to achieving this, if it leads to a positive impact on end consumers and delivers lower costs, whilst ensuring security of supply, a level playing field for all actors in the raw materials market, and sustainability. The drive for more RE in the EU should be balanced against the need to reduce the burden that energy and climate policies place on globally competing companies.

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?*

The EU should strive to ensure a level playing field for energy technologies, including industrial CHP, through the phasing out of support mechanisms. Any financial support should only be directed to R&I in to the development of innovative sustainable energy (e.g. recycling technologies) and storage solutions

that can deliver key enabling technologies that can deliver the low carbon energy future but more importantly at the same time a competitive low carbon economy.

Current support schemes and incentives have distorted the energy market as well as distorted the raw materials market, and placed financial burden on consumers, which for the ECI has had a negative effect on its competitiveness. The practice of financing renewable energy technologies via the energy price with the addition of surcharges has been harmful to energy intensive businesses. It is therefore necessary to find the most efficient solutions to keeping costs as low as possible.

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.*

It is clear that up to now cooperation mechanisms have not been as successful as hoped, but could still hold potential in the future. In particular cooperation mechanisms where Member States work together at regional level for example, to drive down the associated RE costs could assist in delivering an energy system providing sustainable and competitive energy, as well as security of supply. In order to encourage this, it may be the case that additional policy mechanisms will be required. Attention must be given to how to handle burden (backup, subsidies and incentives, grid costs) and benefits (lower commodity price) in cooperation mechanisms.

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>					X
<i>Administrative complexities</i>					X
<i>Lack of cost-effectiveness / uncertain benefit for individual Member States</i>					X
<i>Government driven process, not market driven</i>					X
<i>Member States reluctant to see their taxpayers/ consumers' money used for investments outside their country</i>					X

The role of the EC should be to facilitate more coordination and cooperation between Member States, with a view to bringing down the costs of RE expansion across the EU.

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.

Attention must be given on how to handle burden (backup, subsidies, grid costs) and benefits (lower commodity price) in cooperation mechanisms.

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:

	Very important	Important	Not very important	Not important	No opinion
EU-level incentives such as EU-level or regional auctioning of renewable energy capacities		X			
EU-level requirements on market players to include a certain share of renewables in production, supply or consumption				X	
EU-level financial support (e.g. a guarantee fund in support of renewable projects)		X			
EU-level support to research, innovation and industrialisation	X				

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

<i>of novel renewable energy technologies</i>					
<i>Enhanced EU level regulatory measures</i>			X		

The EU chemical industry plays a crucial role in the energy transition, developing new innovative and sustainable technologies and environmental solutions. EU funding support needs to be prioritised to innovation and research on breakthrough low-cost renewable energy technologies and technologies which can assist in the low carbon transition, and easing the burden on energy costs of the energy intensive industrial consumer. It is also important to ensure a level playing field and to recognize that all industries in the bio-economy, including the bio-chemical industry, play an important and sustainable role in mitigating GHG emissions, as well as in creating growth and jobs in the EU.

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?*

The drive for more RE in the EU should be balanced against the need to reduce the burden that energy and climate policies place on globally competing companies.

2. Empowering consumers

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 barrier</i>	<i>Important barrier</i>	<i>Not very important barrier</i>	<i>Not important barrier</i>	<i>No opinion</i>
<i>Self-consumption or storage of renewable electricity produced onsite is forbidden</i>			X		
<i>Surplus</i>			X		

<i>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>		X			
<i>Appliances or enabler for thermal and electrical storage onsite are too expensive</i>		X			
<i>Complex and/or lengthy administrative procedures, particularly penalising small self-consumption systems</i>			X		
<i>Lack of smart grids and smart metering systems at the consumer's premises</i>		X			
<i>The design of local network tariffs</i>				X	
<i>The design of electricity tariffs</i>				X	

Distortions in the electricity system exist across the EU including from small local renewable electricity producers who are not incentivised to consume all their produced energy due to the presence of backward running electricity meters. Such types of distortion can be seen as hindering flexibility and overall the successful integration of renewables in the system.

The mandatory use of bi-directional meters would incentivise a large proportion of consumers to be more pro-active with energy consumption. Likewise, the information gathered from such meters would be a vital source of information both for the consumer themselves in regulating their consumption, but also that information could be used to assess the need to ensure grid stability, as well as contribute to security of supply, and also for the determination of the real cost impact of each consumer on the grid.

Furthermore, bi-directional smart meters will incentivise power producers to provide real time pricing in contracts. At this current time conventional meters do not incentivise consumers to become flexible. So both for the integration of RE at residential level and at the grid level, smart meters are needed.

In a similar vein, grid tariffs should not hinder flexibility such as demand side response, and should not intervene with a price signal and a subsequent reaction in the market either. Grid tariffs and the market should remain separate. If grid tariffs are to be used as subsidies or incentives by providing price signals that should come from the market, the market will fail. Again, smart meters are needed.

Additionally, the EC is using the term empowering consumers, however consumers are considered to adapt to the development of intermittent RE which is the opposite of 'empowering'. This is contradictory with the fact that electricity is a basic need. Therefore, adequacy should at all times be ensured, but not at the expense of consumer rights.

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)

Due to the fact that the national RED-targets have not been based on bottom-up potential, but on top-down criteria such as GDP, ambitious and costly policy measures have been implemented in Member States but with insufficient vision on technology improvement pathway and total system costs. As such there has been an overexploitation of uneconomical RE potential.

More concerted analysis and development of technology improvement pathways that ensure a low-cost impact on overall system costs needs to be made. The RED has in this respect no provisions to reduce the total system cost of RE production.

One part of the solution to a reduction in the total system cost and further integration of renewables, is to pursue the development of competitive solutions for renewable heat and electricity, storage, DSR, industrial CHP, metering and active participation of local prosumers.

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

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
<i>Promoting the integration of renewable energy in local infrastructure and public services</i>					X
<i>Supporting local authorities in preparing strategies and plans for the promotion of renewable energy</i>					X
<i>Facilitating cooperation between relevant actors at the local or municipal level</i>					X
<i>Facilitating access to targeted financing</i>				X	
<i>EU-wide right to generate, self-consume and store renewable electricity</i>				X	
<i>Measures to ensure that surplus self-generated electricity is fairly valued</i>				X	
<i>Harmonized</i>		X			

<i>principles for network tariffs that promote consumers' flexibility and minimise system costs</i>					
---	--	--	--	--	--

RE should be integrated at all levels in to the internal energy market. Grid tariffs should not hinder flexibility, and likewise should not intervene with a price signal and a subsequent reaction in the market either. Grid tariffs and the market should be separate.

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

Yes. EU energy policy should support that consumers are well informed and have access to all information which has an impact on their final bill. Informing consumers should be done in such a way so that information provided is complete, transparent, and easy to understand.

Consumers should have access to information on generation costs, the level of subsidies and incentives, infrastructure costs, transmission and distribution costs, and any other related costs. For industrial consumers subject to market competition, having relevant information on the price of electricity and steam is valuable, however having a competitive price is a necessity.

Empowering the consumer for more market participation to allow further development of RE should include more transparency on the intermittency issue. Providing information on when conventional plants are providing electricity in absence of solar and wind will show the importance of backup and storage solutions and genuinely 'empower' the consumer.

The Guarantees of Origin system should be available for all energy sources. In a truly interconnected European energy system working within a liberalised energy market, consumers should have the possibility to choose which technology their electricity is produced from along with its cost. However, present day GOs do not inform consumers about the nature of the electricity they use. They are merely certificates which state that a corresponding amount of renewable electricity has been produced somewhere in Europe. In its current state, therefore, the GO scheme does not "empower consumers". Although it could be said to fulfil its role as a tracking system for consumer choice, it nevertheless leads to a wrongful impression of renewable electricity consumption; merely letting consumers pay extra for incumbent renewable production that would be produced anyway. Furthermore, GO does not yield any subsidies and incentive for new RE production, and as such does not yield any real carbon abatement. Transparency on origin must not lead to extra cost for the consumers.

3. Decarbonising the heating and cooling sector

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 RED, EED and EPBD)</i>		X			
<i>Lack of administrative capacity and/or expertise/knowledge/information at the national and local level</i>		X			
<i>Lack of energy strategy and planning at the national and local level</i>		X			
<i>Lack of physical space to develop renewable heating and cooling solutions</i>				X	
<i>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</i>		X			
<i>Heating and cooling equipment installers lack sufficient knowledge or information to offer renewable energy alternatives when</i>		X			

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

Renewable heating is mainly dependent on biomass. There is a technology gap that can provide for cost efficient alternative heating sources for industry. Therefore more research and innovation is needed to provide for breakthrough technologies in RE – heating and cooling (H&C). The EC should further recognise that CHP, in industrial, district-heating and individual building applications, is a powerful technology to convert fuels in the most efficient way into electricity and useful heat, helping to meet energy demand with reduced primary energy consumption and less CO₂ emissions in Europe.

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 obligation</i>			X		
<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>			X		
<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>			X		
<i>Measures supporting best practices in urban planning, heat planning, energy</i>		X			

<i>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>			X		
<i>Nearly zero-energy building (NZEB) standards to include a mandatory minimum use of renewable energy</i>		X			
<i>Including systematically renewable energy production in buildings' energy performance certificates</i>			X		
<i>The promotion of green public procurement requirements for renewable heating & cooling in public buildings</i>			X		
<i>Heating and cooling equipment installers should present renewable energy alternatives when asked to replace fossil fuel heating and cooling</i>		X			

<i>equipment</i>					
<i>Develop best practices for enterprises, including SMEs, to integrate renewable heating and cooling into their supply chains and operations</i>		X			
<i>Requirement to consider renewable energy alternatives in subnational, national, regional or EU security of supply risk preparedness plans and emergency procedures</i>				X	
<i>Targeted financial measures</i>		X			

The majority of EU H&C supply is generated from fossil fuels on industrial sites, next to the increasing recuperation of waste heat from and for production processes. Whilst growth of heat recovery to use in, for example district heating remains an area with some potential it would require significant investment in distribution networks. Such investments are costly and not very efficient if heat is transported over long distances. That challenge would also exist if RE was the source of heating and cooling.

However, renewable energy solution for H&C would also bring a number of other challenges. For example, heat temperatures from RE sources are not as high as when using fossil fuels. Likewise, except for biomass and geothermal, other sources are intermittent and not a first option for industrial facilities which require constant and reliable energy supply. For geothermal this technology is not possible in all geographical locations. For biomass there are questions over its long-term availability, the logistical requirements to farm, store and deliver in sufficient quantities an expansion in this fuel source, and ultimately, it is currently far too costly.

Effective policy measures are needed that can encourage end-consumers to invest in renewable heating or cooling. As such the EC should look at specific financial incentives and subsidies that focus on research and innovation to develop cost efficient technologies.

Consumers with potential in this area should also be made more aware of the available solutions, ensuring transparency on their technical and financial advantages and constraints.

Additionally, the EU should further focus on the deployment of CHP installations for heating purposes (without setting additional targets or obligations for industry) and ensure that grid tariffs and other barriers are removed. Industrial CHP use is a frontrunner in the decentralised energy system model that the EU supports.

4. Adapting the market design and removing barriers

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>		X			

<i>Shorter trading intervals (e.g. 15 min)</i>			X		
<i>Lower thresholds for bid sizes</i>		X			
<i>Risk hedging products to hedge renewable energy volatility</i>		X			
<i>Cross border capacity allocation for short-term markets (i.e., some capacity being reserved for intraday and balancing)</i>				X	
<i>Introduction of longer-term transmission rights (> 3 years)</i>			X		
<i>Regulatory measures to enable thermal, electrical and chemical storage</i>		X			
<i>Introduction of time-of-use retail prices</i>		X			
<i>Enshrine the right of consumers to participate in the market through demand response</i>		X			

It should be assessed whether the current market design will deliver on the long-term the required competitive prices and adequacy since the core of the current market problem – subsidy and incentive driven intermittent production - will further increase.

Any evolution of market rules should ensure full transparency for all consumers and not place any additional burden or constraints, this is especially important for smaller participants.

Flexibility (including DSR) and long-term contracts may temporarily soften the problem that an increasing part of the supply side of the market is no longer incentivised to follow demand, but this will not solve the problem of adequacy in the longer-term.

EU energy intensive industry requires competitive and secure energy to be able to compete in a challenging global environment. This is the aim of the liberalisation and the implementation of the 3rd package. We support efforts by the EC to ensure this is a reality as quickly as possible.

Additionally, equal responsibilities for all generation are necessary to ensure non-discriminatory treatment between energy producers. Each RE producer should therefore be responsible for its own backup provisions.

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

Balance Responsibility Parties (BRP) should be strengthened in order to cope with non-secure RE generation. BRP should be made responsible for their own backup provisions. BRP quality should be at the centre of regulators interest and be reflected into the market and products including at the residential level.

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>					X

<i>Transparent and foreseeable grid development, taking into account renewable development and integrating both TSO and DSO level and smart technologies</i>					X
<i>Predictable transparent and non-discriminatory connection procedure</i>					X
<i>Obligation/priority of connection for renewables</i>					X
<i>Cost of grid access, including cost structure</i>					X
<i>Legal position of renewable energy developers to challenge grid access decisions by TSOs</i>					X
<i>Transparency on local grid congestion and/or market-based incentives to invest in uncongested areas</i>					X

All energy technologies should be treated in a non-discriminatory way. This is particularly important for the integration of RE in the market.

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

Merit order is sufficient and there must be a non-discriminatory treatment (no subsidies or incentives, equal responsibilities and backup provisions) for those actors that do not enter into the merit order.

Renewable electricity and its integration into the system must be cost-efficient. Any support measures currently in place must have a downward trend and be phased out as quickly as possible. All related additional cost elements should be properly specified, assessed and made transparent to the public.

Additionally, the merit order should allow for volatility (peak prices must be possible).

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

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

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

Effort needs to be made to avoid discrimination between energy producing projects in the field of permits.

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

Infrastructure barriers should be removed equally for all types of producers (not only RE). The grid should be developed according to the needs that arise from actual grid use. Although anticipation is necessary, it should not be based on a development path for supply and demand but on realistic grid evolutions.

Demand side response is one element of integrating renewable electricity into the market, but is hampered by grid tariff structures that penalises increases in demand. Additional demand might lead to an increase in the DSR-provider's individual peak load (even during a short time period), which may lead to an increase in grid fees (via a capacity price paid on the basis of individual peak load). This is a clear disincentive to DSR.

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

	<i>Very important</i>	<i>Important</i>	<i>Not very important</i>	<i>Not important</i>	<i>No opinion</i>
<i>Administrative burden</i>					X
<i>Cost of compliance</i>					X

The integration of RE into the system must be cost-efficient. All the related cost elements should be specified, assessed and made transparent to the consumers.

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

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

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

N/A

5. Increase the renewable energy use in the transport sector
Questions:

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

	<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>				X	
<i>Reduce dependency on oil imports</i>				X	
<i>Increase diversification of transport fuels</i>			X		
<i>Increase energy recovery from wastes</i>			X		
<i>Reduce air pollution, particularly in urban areas</i>				X	
<i>Strengthen the EU industry and economy competitiveness</i>				X	
<i>Stimulate development and growth of innovative technologies</i>			X		
<i>Reduce production costs of renewable fuels by lowering the</i>					X

<i>level of investment risk</i>					
<i>Facilitate fuel cost reduction by integration of the EU market for renewable fuels</i>				X	

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

The best way to promote the consumption of sustainable renewable fuels is to ensure policy that is technology neutral, strives for cost-effectiveness as well as harmonisation across the EU, depending on bottom-up based potential by Member States.

The potential development of sustainable RE should be based on a bottom up approach, determining system costs, sustainability and feasibility. System costs include the investments needed for research and innovation, and the need for parallel development of necessary infrastructures. The question of feasibility is linked to the need to develop winning technologies which have the best chance of reaching the market, and at the lowest possible costs.

Support measures necessary to bring pre-commercial innovative technologies to the market should be time and cost limited so as to allow integration under normal market conditions as soon as the technologies prove to be commercially feasible.

The EU should create a level playing-field in the market for all bio-based industries using and competing for the same raw materials and ensure that all players in the bio-economy are taken into account in relation to the objectives of the RED and related EU legislation. All bio-based industries should be recognised as being able to contribute towards the EU objective of reducing greenhouse gas emissions.

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:

	<i>Very effective</i>	<i>Effective</i>	<i>Not very effective</i>	<i>Not effective</i>	<i>No opinion</i>
<i>Increased use of certain market players' obligations at Member State level</i>					X

<i>More harmonised promotion measures at Member States level</i>					X
<i>The introduction of certain market players' obligations at the EU level</i>					X
<i>Targeted financial support for deployment of innovative low carbon technologies (in particular to the heavy duty transport and aviation industry)</i>					X
<i>Increased access to energy system services (such as balancing and voltage and frequency support when using electric vehicles)</i>					X
<i>Increased access to alternative fuel infrastructure (such as electric vehicle charging points)</i>					X

The best way to promote the consumption of sustainable renewable fuels is to ensure policy that is technology neutral, strives for cost-effectiveness and sustainability as well as harmonisation across the

EU. The potential development of sustainable renewable fuels should be based on a bottom up approach, determining system costs sustainability, and feasibility.

The EU's bio-based chemical industry is a key enabler in supporting the EU's commitment to reduce GHG emissions. Investing in research and innovation are vital to ensuring a sustainable future in this area. However, within the renewable energy and biofuels sector, EU legislation must ensure a level playing field for all competing industries using the same bio-based raw materials and avoid directing certain raw materials from one side of the market to another.

Harmonisation should be in focus, as the aim in Europe is to boost the bio-economy and circular economy and to increase the amount of bio-refineries producing a spectrum of products. Such a system should keep in mind the objectives of the RED to reduce CO₂ emissions and decrease dependency on fossil fuels.

For more information please contact:

Guy Parker, Manager Energy and Climate Policy,
Cefic,

+32 2.676.73.67 or gpa@cefic.be.

About Cefic

Cefic, the European Chemical Industry Council, founded in 1972, is the voice of 29,000 large, medium and small chemical companies in Europe, which provide 1.2 million jobs and account for 17% of world chemicals production.