

Future of Rural Energy in Europe (FREE) response to the green paper on a 2030 framework for climate and energy policies consultation

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About FREE

The Future of Rural Energy in Europe (FREE) initiative gives a voice to all those who believe that rural energy needs are important issues both for those who live in the countryside and for European society as a whole. FREE aims to raise awareness on the importance of rural areas, their relatively disadvantaged energy position and the decisive role they can play in helping European governments achieve their energy & climate change policy objectives.

The FREE initiative was created in 2010 by SHV Energy and is meanwhile supported by a range of organisations, united in their commitment to improving the lot and maximising the potential of rural communities: Glass for Europe, CEJA (European Young Farmers Association), EC Power, Euromontana, the UK Renewable Energy Foundation, the Polish Podlaskie Region, Polish Silesia Region, the Podkarpackie Renewable Energy Cluster, COGEN Europe, AEGPL (European LPG Association), Baxi Group, Rinnai, ACRE (UK national body of the Rural Community Action Network), NEA (National Energy Action), IREEN Project, Tecnocasa Climatizzazione, Polyurethanes and Royal HaskoningDHV.

Introduction

The Future of Rural Energy in Europe (FREE) initiative welcomes the Commission's willingness to look beyond the 2020 energy and climate targets and reflect on the 2030 framework.

The 2020 framework demonstrated Europe's ambitions to create a cleaner environment for European citizens, by supporting the roll-out of renewable energy, reducing CO₂ emissions and stimulating energy efficiency. This framework also impacted rural areas which represent 91% of EU territory, 59% of the population and 48% of the Gross Value Added¹ in Europe. While the first step has been done, much more is required in order to ensure that rural areas have an equal access to cleaner energy choices, in replacement for high carbon solid and liquid fuels that are still used widely today.

FREE supports a sustainable energy mix for rural areas and wants the EU to reduce its reliance on CO₂ intensive fuels such as heating oil, coal, and centralised electricity generated by high carbon fuels and promote instead cleaner fuels available in off-grid areas such as lower carbon gaseous fuels and renewable energies. Rural areas of Europe represent a fertile ground for the Commission's 'Green Growth' ambitions. Rural areas are not only characterised by a large potential for renewable energy production but also by lower energy consumption in comparison to cities. They could therefore become energy-independent, eventually supplying nearby urban areas with energy.

Fuels need to be used for the right purpose and in the right conditions: fuels and energy technologies are not always adequate in certain conditions and a series of parameters need to be taken into consideration (how and

¹ Rural Development in the EU, Statistical and Economic Information, December 2010, p.12

where electricity is produced, weather conditions, energy consumption profile of the household, location and level of heat demand, etc.).

The FREE initiative would also like to underline the importance of tackling energy efficiency in rural areas, which are significantly lower in rural regions, due to the nature of many of the prevalent buildings which tend to be older and widely in need of some renovation. Whilst there is a high potential for rural energy savings, current policies and energy efficiency programmes fail to fully exploit this and the 2030 framework offers an opportunity to improve the current energy efficiency situation in rural areas.

General

Which lessons from the 2020 framework and the present state of the EU energy system are most important when designing policies for 2030?

- The 2030 energy and climate framework is to be a patchwork of policies that should also take into consideration the renewable energy and energy efficiency potential of rural and mountainous areas;
- Bigger focus should be given to the role of local authorities, including small cities and villages. Regional authorities have proven to be key to the implementation of the 2020 energy framework and to the roll-out of renewable energy projects. Regions will have to play a strategic role in implementation of EU energy and climate policies after 2020, their role should be acknowledged and financially supported as they are key to achieving 2030 goals.
- The energy and climate framework should incorporate instruments available within regional and agricultural policies to achieve 2030 goals. This includes better use of structural funds for development of small scale, decentralised renewable energy projects and energy efficiency technologies.
- A binding target for energy efficiency is needed for 2030. Energy savings have proved to be disappointing, essentially due to the absence of a binding target for 2020. This needs to be corrected, especially as energy efficiency is the most cost-efficient way to achieve CO₂ emissions reductions. This aspect should be an absolute priority at a time when Member States are going through a severe economic crisis affecting their spending possibilities.
- FREE supports the Commission's ambition to reduce CO₂ emissions by 40% by 2030 and sees a binding target for CO₂ reduction, with specifics per sector depending on the emission reduction potential, as the best way forward for Europe's ambitions.
- FREE believes that within the 2030 framework the synergy and coordination between different EU policies should be improved (including energy policy, climate action policy, industrial policy, regional policy and agricultural policy). A better level of coherence between those policies, including both push and pull incentives are needed in order to achieve the 2020 climate and energy goals and go beyond.

Targets

Which targets for 2030 would be most effective in driving the objectives of climate and energy policy? At what level should they apply (EU, Member States, or sectoral), and to what extent should they be legally binding?

The Future of Rural Energy in Europe (FREE) initiative believes that a binding energy efficiency target is necessary and should be a cornerstone of the 2030 energy and climate package. Greater attention to energy efficiency (including in rural areas) is necessary to help further reduction of greenhouse gas emissions and in order to increase regional and national competitiveness. FREE understands that the Commission wants to leave some time to assess the implementation of the recently adopted Energy Efficiency Directive but would encourage early discussions on the need to adopt a binding energy efficiency target for 2030. FREE would be in favour of setting up an ambitious target of 40%, accompanied by measures targeting the building sector (renovation incentives, building standards, Ecodesign measures for energy-using equipment, demand-side measures targeting consumers' behaviour).

Particular attention should be given to renovation of buildings in rural areas.

According to the Opinion of the Committee of Regions on 'Energy efficiency in cities and regions — a focus on the differences between rural districts and cities': "Energy efficiency in rural areas is in a critical state and needs to be addressed urgently. Rural households and small businesses face several disadvantages with regards to their energy use, particularly due to the nature of households and the quality of the building stock. Rural buildings are significantly older and their renovation is more costly and often beyond the reach of their owners. One reason for this is population density: insulation of individual rural homes cannot benefit from the same economies of scale that urban homes with multiple tenants may have. This situation, which applies to all Member States in various degrees, leads to proportionately higher energy costs in rural areas, where the income per inhabitant is 21 % to 62 % lower in rural areas."

FREE also believes that a comprehensive European approach towards heating and cooling needs to be developed and should be considered as a crucial pillar supporting the 2030 framework. EU policy tends to focus on the decarbonisation of the electricity mix but tends to neglect the heating sector. The 2030 framework offers opportunities to fill that gap. A comprehensive strategy on heating and cooling is needed to promote energy efficient solutions throughout the entire energy supply chain. Mobility patterns are also very different in rural areas, where the use of individual cars cannot be substituted. This structural need leads to comparatively higher transport fuel consumption for rural communities. Energy consumption patterns are therefore very different, leading to different needs in terms of policy support.

Specific attention should be also given to encouraging GHG emission reduction in rural areas, where the greater share of oil and coal leads to relatively high greenhouse gas emissions per capita. Other emissions to air in rural areas (NO_x, SO_x, and particulate matter) also should be acknowledged by the European Commission.

The higher GHG emissions to be found in EU rural areas is problematic and requires policymakers' attention, as rural areas are more exposed to the effects of climate change, particularly through its impact on agriculture, which remains a very important commercial sector in European rural areas.

As pointed out by Euromontana, "between the end of the 19th century and the beginning of the 21st century, the temperature [in the Alps] has increased by two degrees (...). The most visible effects have been glacial melt, a decrease in snow cover, changes in the average flow of rivers and a decrease in water resources in general."

Rural areas offer immense opportunities for the deployment of renewables (in electricity, heating & cooling and transport). FREE supports their further development beyond 2020 if they respond to local needs in a cost-efficient manner. They should be adapted to local circumstances, whilst also complying with sustainability criteria (for first-generation biofuels and biomass). They should also be widely supported by the local population to avoid issues of public acceptance (for wind, biogas, hydro), especially in the case of large-scale installations reaching industrial scope.

Have there been inconsistencies in the current 2020 targets and if so how can the coherence of potential 2030 targets be better ensured?

One of the inconsistencies of the 2020 framework is the fact that while the Commission proposed binding targets for GHG emissions and renewable energy, it failed to introduce a binding target for energy efficiency.

Considering that the energy efficiency target was poorly defined in the 2020 framework, the FREE initiative calls for a clear, well-defined and binding energy efficiency target, especially for renovation of buildings.

How can targets reflect better the economic viability and the changing degree of maturity of technologies in the 2030 framework?

FREE believes that for instance an energy efficiency target could have positive effect on rolling-out such energy efficient technologies as Micro-Combined Heat and Power (CHP). Those technologies already proved to bring positive effects, but they need an additional push from the authorities to reach a wider market. Additionally, FREE would like to call upon the Commission to open up grids for excess electricity produced by end consumers.

Some energy technologies can be particularly adequate for rural and isolated areas. Micro-CHP is a very efficient form of boiler able to produce, with one fuel source, both electricity and heat for the home. If power is produced in excess, consumers can sell the electricity back to the grid and de facto become energy producers.

How should progress be assessed for other aspects of EU energy policy, such as security of supply, which may not be captured by the headline targets?

Security and stability of supply plays an important role in rural areas. With current discussions on energy infrastructure and trans-European Energy projects, the debate is very much focusing on macro-level energy projects in Europe (centralised electricity and natural gas pipelines). However, security of energy supply and decarbonisation will also depend on how well decentralized energy is developed.

This is particularly important in view of increasing power outages in Europe. For instance in April 2013 almost 100,000 people in Poland suffered from power outages due to heavy snow falls. What's more one must not forget the EU's biggest blackout of 4 November 2006, which left a substantial part of Europe without electricity supply. FREE believes that creation of decentralised energy systems is the best way forward to tackling the problem of security of supply. In view of this FREE would like to underline the importance of non-grid energies such as renewables and cleaner hydrocarbon as LPG are essential to ensure security of supply in rural areas.

Instruments

Are changes necessary to other policy instruments and how they interact with one another, including between the EU and national levels?

More attention should be given to creating a well-functioning ETS to secure realistic carbon prices. A strong ETS system is key to ensure roll-out of renewable energy technologies in Europe and would help other lower carbon fuels.

The FREE initiative also argues for 2030 climate and energy framework to be linked with the environmental policies of the European Union aiming at reducing the levels of air pollution. The European Commission should therefore consider putting forward an integrated package of climate and energy measures aiming at reducing both CO₂ emissions and air pollution. Air pollution can come from fuel combustion in domestic heating but also from agriculture activities, a major source of methane (CH₄) and NO₂ emissions that should also be factored into EU environmental legislation. Methanisation is a way to solve a number of environmental issues in rural areas (methane emissions, waste, diversification of revenues for farmers, etc), on the condition that it is conducted in an energy efficient manner (heat recuperation, use biogas to fuel the process).

Serious air pollution issues also occur in rural areas. According to Thomas Kuhlbusch, Air Pollution Manager at the Institute for Energy and Environment Technology (Duisburg-Essen University, Germany), "the differences in air quality in rural and urban areas have reduced drastically in recent years, particularly because air quality in cities has improved. Some issues exist in rural areas, especially because of intensive livestock activities."

How should specific measures at the EU and national level best be defined to optimise cost-efficiency of meeting climate and energy objectives?

FREE believes that specific measures should be put forward on Member State level with regards to energy efficiency. Concretely, FREE supports binding targets on renovation of buildings.

FREE believes that in order to best define the cost-efficiency of the measures, national authorities should be involved throughout the entire process. In addition, consumers' education should be a cornerstone of national and local activities. The European Commission and Member States should particularly focus on presenting benefits of increasing renewable energy levels and energy efficiency levels:

- creation of new jobs,
- improvement of regional competitiveness,
- potential costs cuts in energy costs after the house is renovated and more energy efficient;

The FREE initiative acknowledges that although climate and energy targets are key to creating a cleaner and more prosperous Europe, according to the results of the market research in Poland (FREE White Paper), most of the citizens living in rural and sub-urban areas consider environment and climate change as one of their last concerns. Therefore, it is key to focus on economic benefits of implementing specific measures, in order to justify the initial cost of putting those policies into action.

Which measures could be envisaged to make further energy savings most cost-effectively?

The FREE initiative believes that the most cost-effective way of further energy savings is to improve energy efficiency of existing buildings, for example through insulation and the installation of modern lower carbon heating/cooling appliances. FREE calls upon the Commission to provide measures and financial instruments to increase the rate of building renovation. FREE supports an annual renovation rate of 3% for all buildings, both public and private. We believe the provisions targeting central government buildings in the Energy Efficiency Directive will not make a substantial contribution to energy efficiency in rural areas.

FREE also believes that the recast Energy Performance of Buildings Directive and the new Energy Efficiency Directive should be properly implemented by the Member States.

How can EU research and innovation policies best support the achievement of the 2030 framework?

Horizon 2020 offers development opportunities for rural communities by strengthening their capacity for primary production and delivery of eco-systems services as well as by opening avenues for the production of new and diversified products, which meet the increasing demand for decentralised delivery systems. FREE believes that the EU research should be an integral part of the 2030 framework. Supporting innovation in the energy sector is important as it helps overcoming current energy and environmental challenges, and helps companies become more competitive within and outside the EU market. Areas of focus should include electricity and heat storage for rural areas, as well as the much expected roll-out of Smart Grids, which will greatly help integrate decentralised energy production, manage energy demand and, again, store energy.

Competitiveness and security of supply

Which elements of the framework for climate and energy policies could be strengthened to better promote job creation, growth and competitiveness?

FREE believes that binding energy efficiency measures and in particular building renovation target, could have a positive impact on employment levels. For instance in a study developed for the French Ministry of Industry it is

expected that 40,000 jobs could be created in rural areas (in addition to the 231,000 existing jobs) in the wood sector should 12 million m³ be used in the construction and renovation sector.

What are the specific drivers in observed trends in energy costs and to what extent can the EU influence them?

FREE is of the opinion that energy efficiency of buildings should come before other options usually considered (price-based and income-based policies). In that respect, FREE fully supports the conclusions reached by Pr. John Hills in its analysis developed for the UK Government: “The analysis suggests that policies to improve the thermal efficiency of the housing stock that are targeted on those with low incomes and have energy-inefficient homes would be the most effective at reducing the level of fuel poverty.” Energy poverty is more acute for rural households. Any policy approach tackling energy poverty does tackle energy consumption in buildings (through energy efficiency measures) but also addresses the more important mobility needs of rural citizens.

Capacity and distributional aspects

Are new financing instruments or arrangements required to support the new 2030 framework?

FREE is of the opinion that an innovative financing scheme for energy efficiency upgrades: use of ETS revenues, pay-as-you-save schemes should be ensured in the upcoming 2030 framework.

The 2030 framework should also focus on financing facilities and funding schemes:

- Member States shall create financing facilities aggregating different streams, such as their own national resources, EU Structural Funds, resources allocated to energy efficiency from EU project bonds, resources from the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD).
- The European Commission could also encourage Member States to use their revenues from the EU Emissions Trading Scheme for the thermal renovation of buildings and boiler replacement schemes, similar to the programme currently planned in France.
- Member States should be asked to report to the European Commission on the amount of funds potentially available to rural areas for the renovation of the building stock. Another possible area worth investigating for the financing of energy efficiency is the UK ‘Green Deal Financing Scheme’ model, which allows householders to upgrade the thermal efficiency of their home at no upfront cost, with investment paid back through electricity bills (at the same time as the cost savings accrue - pay-as-you-save scheme).

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