



RURAL ENERGY MATTERS

Summary of the Report
and recommendations
for policymakers 2016



Future of Rural Energy in Europe (FREE) initiative

FOREWORD



Given the significant role of rural communities in Europe's social fabric, the welfare of rural communities must be a central public authority/EU and Member State priority. Protecting these communities and their wellbeing can have knock-on effects, from creating a sustainable agricultural system to supporting tourism. Engaging rural communities in energy and climate policy is essential if we are to achieve our goal of a more sustainable society.

Europe as a whole has committed to play a major role in global climate action. We must reduce our greenhouse gas emissions, transition to a lower carbon economy and maintain a secure and affordable supply of energy to our citizens. If we are to achieve this, a holistic approach is needed, incorporating all of Europe's citizens, including rural areas.

■ CURRENT SITUATION IN RURAL AREAS

Rural areas are vital to Europe's economy – that are also faced with severe economic, demographic and infrastructural and energy challenges.

Over 57% of Europe's citizens live in rural areas, occupying over 90% of Europe's territory and contributing 46% of Europe's gross economic value. Overall, the rural economy is becoming more modern and service-oriented; however the energy situation in rural areas is not following a similar trend. In fact, the 19% of EU buildings (40 million households) located in rural areas contributed a staggering 292 Million tonnes (Mt) of CO₂ in 2016. This is related to the fact that the most common fuel used for heating and cooling in residential, tertiary and industrial buildings in rural remote areas is coal (38%), followed by biomass (28%), and heating oil (12%). Other less polluting fuels have a small share of the mix, with LPG representing 10.6% of energy consumption in rural remote areas and heat pumps delivering 0.8% of final energy demand in rural remote areas.



■ THE RURAL ENERGY CHALLENGE

The use of inefficient, high-polluting fuels in rural areas is linked to severe air quality and health impacts and high levels of CO₂ emissions.

Energy choices in rural areas are often limited to solid and liquid fuels, which emit high levels of greenhouse gas and health-damaging particulate matter (PM). In fact, the most common form of heating in rural-remote areas is coal, which constitutes 39% of fuels used in the countryside¹. The overdependence of heating on solid and liquid fuels leads to poor air quality in some rural and mountainous areas such as Piedmont (Italy) or Podlasie (Poland), where the estimated exposure to PM_{2.5} is as high as in London or Paris.

Energy efficiency financing is not reaching rural dwellers.

The uptake of energy efficiency is also more problematic in rural areas, where buildings tend to be larger and older than their urban counterparts. Renovation of these buildings is limited in part because it is more expensive and there are few financing options available. **In many cases, only a small amount of funding for energy efficiency improvements goes to rural areas.** In addition to leading to excess greenhouse gas emissions, this has significant social effects, such as high rates of fuel poverty.

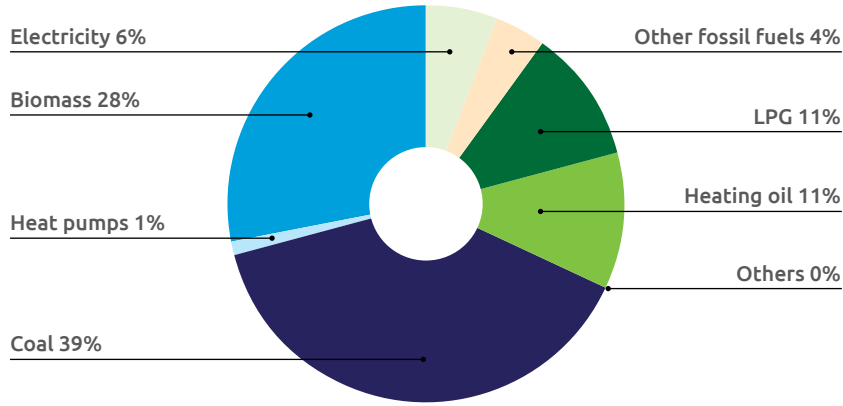
■ THE SOLUTION

Nearly 100 Million tonnes of CO₂ can be saved if we act today.

A study developed by Ecuity estimates that the potential for rural-remote emissions savings in the EU heating and cooling sector could be as much as 100 MtCO₂ by 2030 compared to the business as usual scenario. Ecuity has developed a set of rural remote energy scenarios to test the impact of changes in the heating and cooling mix and the introduction of energy efficiency on carbon emission levels. A 100 Mt CO₂ saving is achievable under a scenario which assumes a phase out of high-polluting fuels like coal and oil in favour of lower-carbon fuels, such as renewable energy and LPG, as well as by introducing heat pumps and energy efficiency improvements.

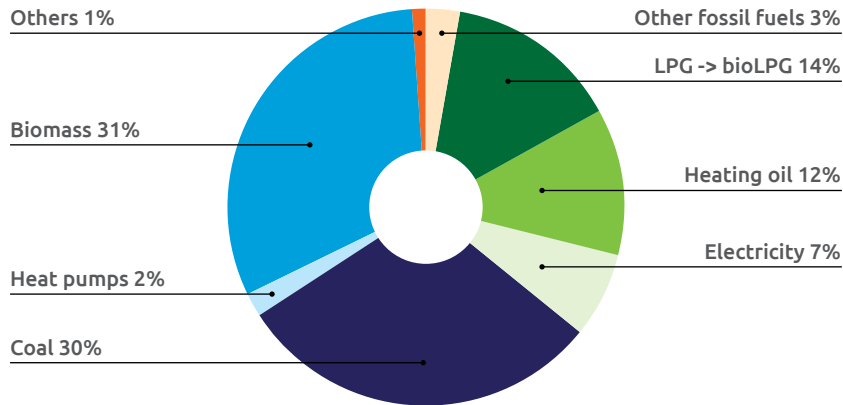
¹ Source: Ecuity Report 2016

Final energy demand in 2016 for rural remote areas, H/C (EU-28) - current situation



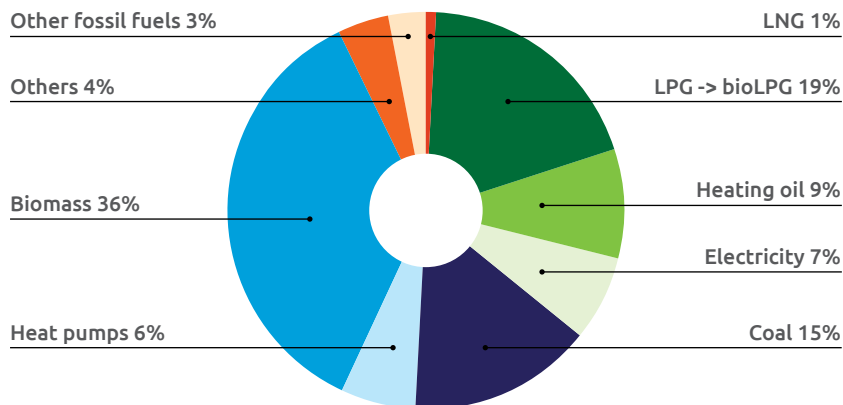
This represents:
 - 1309 TWh
 - 292.6 MtCO₂ emissions

Final energy demand in 2020 for rural remote areas, H/C (EU-28) low carbon / high efficiency scenario



This represents:
 - 226 MtCO₂ emissions
 - 1134 TWh
 - 97 Mtoe

Final energy demand in 2030 for rural remote areas, H/C (EU-28) low carbon / high efficiency scenario



This represents:
 - 129 MtCO₂ emissions
 - 887 TWh
 - 76 Mtoe

Under the Low Carbon / High Efficiency Scenario developed by Ecuity by 2020 the share of coal in the energy mix decreases by 9% while the share of LPG slightly increases (by 8%). This change alone combined with decreasing demand caused by depopulation of rural areas and energy efficiency improvements, would reduce emissions by 66 MtCO₂ in 2020. By 2030, a total of nearly 100 Mt CO₂ can be saved if the usage of coal is reduced to 15% and heating oil to 9% in the rural-remote energy mix, while the usage of cleaner and more efficient fuels such as LPG and BioLPG (introduced as of 2020) is increased to around 20% and heat pumps to 6%.

■ POLICY RECOMMENDATIONS

In order to improve the energy and climate situation in rural and remote areas, the EU needs to put rural areas back on the EU energy map. This should be achieved by:

1 - Enabling improvements to energy efficiency by giving the countryside the right tools.

Existing legislation fails to adequately support the improvements needed if rural areas are to effectively tackle energy losses. Policymakers should support the renovation of building stock through local energy advice and audit programmes, advanced finance schemes and financial incentives.

2 - Empowering rural consumers through the rollout of smart energy technologies.

Decentralised energy generation technologies are becoming increasingly important for rural consumers without access to reliable energy supplies from the Grid. Incentives should be introduced for localised clean electricity generation, Micro-CHP and smart grids deployment.

3 - Streamlining EU and national funds to support energy projects in rural areas.

This must be coupled with political support for the development of cleaner and more energy efficient technologies in rural areas.

4 - Acknowledging the unique characteristics of rural areas as they transition to sustainable energy use.

Given the overreliance on heating oil and coal, policymakers should introduce a portfolio of political and financial incentives to transition towards cleaner energy technologies. A priority of the EU must be the reduction of CO₂, mono-nitrogen oxides (NO_x), Sulphur Oxide (SO_x) and fine particulates considering their impact on climate change and public health.

5 - Formulating a comprehensive strategy to address the challenges facing the European countryside.

As rural citizens face a range of challenges, including related to climate and energy, a Rural Agenda for Europe should set a roadmap for improving the conditions of our countryside.

A large, leafy tree stands in a rural landscape with a blue text box overlay. The tree is the central focus, with its thick trunk and dense canopy of green leaves. The background shows a rolling green field under a clear sky. The text box is a dark blue rounded rectangle containing white text.

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. We want to make sure that policy makers acknowledge that the following is true and plan accordingly.



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