

EXECUTIVE SUMMARY

Alongside the twin pillars of energy efficiency and savings, renewable energy plays a key role in any sustainable European energy policy. It both lowers the EU's import dependency, thereby improving security of supply and reducing reliance on volatile oil, gas and uranium prices, and contributes to the fight against climate change. The EU's international competitiveness is also boosted by technological developments in this up and coming industry.

By virtue of its geological, climatic and hydrological conditions, Europe has every available renewable energy source at its disposal. Hydro, wind, concentrated solar power, photovoltaic, geothermal, wave and tidal sources, as well as biomass, can all be used for power generation, albeit not in every European country or region. Estimates show that EU Member States, Norway, Iceland, Switzerland and the EU candidate countries Croatia and Turkey, as well as the western Balkans, possess a combined economic potential for "green electricity" production that far surpasses current and future projections of electricity demand.

Currently, however, Europe exploits only a fraction of this green electricity potential. In the European Economic Area (EEA) only Iceland and Norway completely cover their electricity demand with energy generated from renewable sources, while the rest of Europe taps this potential to a limited extent only, if at all. The considerable capacity of renewable sources other than hydro power to generate electricity remains under-utilised in most European countries. Western EU countries, such as Ireland, the United Kingdom and France, for example – fail to use their great potential for wind power, while in the Scandinavian states biomass, hydro and wind power sources remain similarly under-exploited. Looking at Central and Eastern Europe, Poland alone has a more than 100 TWh green electricity potential which currently goes unused, while Germany's renewable electricity potential is six times higher than that produced at present. The EU's potential to generate electricity from wind is estimated to be 20 times higher than the amount produced in 2005. In addition, solar thermal power plants situated in southern Member States and candidate countries with particularly favourable climates could supply almost half of the EU's electricity needs.



Solar panels / Panneaux solaires ©shutterstock – Henrik Jonsson

Wood pellets / Granules de bois ©shutterstock – Sophia Winters

Wind turbine & solar panels / Éoliennes & panneaux solaires ©shutterstock – Ronfromyork

Hydroelectric dam / Barrage hydro-électrique ©shutterstock – Stephen Finn

THE EXPLOITATION OF RENEWABLE ENERGY IN EUROPE CLEARLY REMAINS IN ITS INFANCY

While the European Union has decided to generate 20% of its overall final energy consumption from renewable sources by 2020, the benefits that the EU can provide as a community for common action are not being fully taken advantage of as Member States have differentiated national targets, to be pursued via individual national action plans. In comparison with the formative years of the European Community – such as with the European Coal and Steel Community (ECSC) and the European Atomic Energy Community (EURATOM), two of three founding treaties that pursued energy-oriented goals – it is clear that there is a profound lack of determination to use common action in order to force the expansion and use of renewable energy.

Common action in the area of renewable energy could offer a scenario that many Member States could otherwise only dream of. A new 'European Community for Renewable Energies' (ERENE) would bring this to fruition. The task of ERENE should be to look beyond the national frameworks, instead developing and putting into practice a Community Strategy designed to facilitate a complete shift to renewable energy for the electricity sector.

The principle aim of ERENE would be to create the conditions necessary to take full advantage of the EU's climatic, geological and hydrological diversity. While certain EU countries enjoy a much greater potential for the production of green electricity than is necessary for their own electricity demand, for at least one-third of Member States it would be incredibly difficult, if not impossible, to completely shift to green electricity with a renewable energy strategy focusing solely on the sources within their own borders.

It is clear that a strategy that combines the use of regional renewable sources with a transnational grid for a European internal market for green electricity will create new opportunities both for the sustainable modernisation of the electricity sector and for the eventual coverage of the EU's total electricity demand by renewable energy sources.

ERENE does not aim to compete with the European Commission's January 2008 Directive proposal on the use of renewable energy, which is certainly a great step forward in the EU's energy policy. Instead, ERENE would offer ambitious Member States the opportunity to develop a strategy that goes beyond the EU Directive through common action, forming the avant garde for the shift from electricity production from fossil and nuclear energy to renewable sources. Additionally, it would strengthen European integration and emphasise the value of common action in overcoming contemporary problems.

ERENE could be founded either as a Community for increased co-operation between Member States under the aegis of the EU, or as a Community on the basis of a separate treaty. Establishing it as a Community for increased co-operation would emphasise that it is a new and relevant integration project for the EU, even if – as with the monetary union – not all Member States would join immediately. Establishing it on the basis of a new separate treaty, such as ECSC and EURATOM, would herald an historic move away from the age of fossil fuels and nuclear power to one of renewable energy. Furthermore, it would demonstrate that the European Union states, 50 years after their coming together as a Community, remain devoted to the goal of establishing an environmentally-friendly and secure energy supply for Europe.

IN ORDER TO ACHIEVE THESE GOALS, ERENE'S COMPETENCIES SHOULD BE AS FOLLOWS:

- To conduct the necessary research, support the dissemination of new technologies and facilitate innovation through the establishment of pilot projects. ERENE should have the possibility to lead common research programmes; establish and run common research institutions; set up demonstration plants for the production and transmission of energy from renewable sources; and support training programmes including the promotion of research fellowships and exchange schemes.

- To contribute to the creation of a European electricity grid via participation in the building and maintenance of transnational interconnectors as well as grid connections to demonstration plants; in addition to promoting the development of smart grids for the systemic integration of renewable energy.

- To establish common enterprises.

- To facilitate and promote investment in renewable energy through a common support scheme for electricity trade from renewable energy. A price-based, technology-specific support scheme for renewable electricity imports in ERENE Member States is proposed alongside the national support schemes.

- To further co-operation with other states in the area of renewable energy.

ERENE's costs will be met by the participating Member States via revenue from the European emissions trading scheme. The majority of ERENE's undertakings will be financed via a principal of "geographical-return". This will ensure that the value of projects, investments and electricity supply agreements are equitably distributed according to individual Member States' financial contributions

WHAT ARE THE NECESSARY STEPS TO CREATE A 'EUROPEAN COMMUNITY FOR RENEWABLE ENERGIES' AS A GREAT NEW EUROPEAN INTEGRATION PROJECT?

- The year 2008 should be used for consultations on the proposal for the creation of ERENE. The UN Climate Conference in Poznan, Poland, in December 2008 is also an important date in this context.

- European Parliament elections in the first half of 2009 could provide a platform to bring ERENE onto the European agenda.

- After the Lisbon Treaty comes into force the ERENE proposal could be put on the European Commission's agenda via the newly-created "citizens initiative". The second half of 2009 could then be used to concretise the proposal at a national and European level, particularly in view of the UN Climate Conference at the end of 2009 in Copenhagen, Denmark.

- In early 2010, the Spanish Presidency could prepare a mandate for the creation of ERENE – whether through a separate treaty or as a project of increased co-operation in the EU.

- That same year, 60 years after the Schuman Plan which provided the basis for the creation of the first European Community, the ECSC, a decision could then be taken on founding a 'European Community for Renewable Energies'.

ERENE could, after the creation of the single internal market and the Monetary Union with its common currency, be a great new project for Europe, emphasising the vital importance of common action for Europe's future.

ERENE Executive Summary A European Community for Renewable Energies

A Feasibility Study by **Michael Schreyer & Lutz Mez**

