



Meeting 100% of Europe's electricity needs through renewable energy by 2050 is possible – if we succeed in pooling the potential of Europe's renewable energy sources. This will require cooperation between the EU member states, as well as coherent policies and regulation at the European level. Both currently exist only in fragments, as energy policy in Europe is still shaped mainly at the national level. The Heinrich Böll Foundation therefore asked a number of experts to take stock of European policy in the sectors most important for the transition to renewable energy, to identify the areas in which European cooperation has been inadequate to date, and to propose possible solutions.

In this paper, Sascha Müller-Kraenner investigates the nature of the European Union's relations to third countries with regard to renewable sources of energy and the options available for developing those relations further in order to exploit the potential of renewable energy more effectively. While the EU has the potential to cover its electrical power needs from renewable sources alone, cooperation with third states in using renewable energy sources will play an important role – as can be seen in the large-scale Desertec project.

The external relations of the EU in energy policy

By Sascha Müller-Kraenner

Europe has the potential to meet its demand for electricity with renewable sources of energy in the long term. To date, however, the lack of important elements of an economic and legal framework and financial resources have stood in the way of reaching that goal. The Heinrich Böll Foundation has proposed the creation of institutional prerequisites to coherently promote renewable energy sources in Europe by embodying a European Community for Renewable Energy (ERENE) in the European Treaties.

This policy paper explores the relevance of European cooperation for promoting renewable energy sources. It focuses on the question of how

partnership with third countries – above all the immediate neighbors of the EU – can contribute to supplying Europe with energy from renewable sources. This paper takes stock of existing energy-policy cooperation instruments and governance structures and makes proposals for their effective evolution.

Two innovations in the Lisbon Treaty serve as the starting point: the introduction of a new energy section and the broadening of the range of foreign-policy instruments by setting up a European External Action Service (EEAS).

The Lisbon Treaty contains a special section on energy that states the most important responsibilities and overall energy-policy goals: the function of energy markets, security of supply, energy efficiency and savings, the development of new and renewable sources of energy and the establishment of energy networks. For the first time, a principle of solidarity will ensure that other member states will come to the aid of states experiencing severe supply bottlenecks.

The new High Representative for Common Foreign and Security Policy, who will also serve as Vice President of the EU Commission, will be responsible for ensuring uniformity in the EU's external policy. The Lisbon Treaty will thus lend the EU more weight and a clearer profile in its external relations. The activities of the EU will also be intensified by the new European External Action Service that will consist of representatives of the EU institutions and member states and will support the High Representative.

Furthermore, the Treaty formalizes the legal personality of the Union. The EU will thus be able to conclude international treaties and join international organizations. In other words, the EU will be appearing and acting as a single entity.

If the European Union embraces the perspective of transitioning to renewable sources of energy, it will only reach that goal within the framework of international cooperation. The EU's self-sufficiency in terms of renewable energy sources would be neither economically feasible nor politically desirable. International cooperation in developing an energy infrastructure for the future and the corresponding markets would provide an opportunity to revitalize the European project and regional cooperation beyond the EU's borders. To reach this goal, existing structures of cooperation with the EU's neighbor countries and other international partners must be reviewed and developed further. A suitable time for this would be the publication of the EU's second strategic energy plan anticipated at the end of 2010.

This analysis focuses on the creation of a common electricity market for the EU and its immediate neighbors based on renewable sources of energy. It does not cover the future import share from other parts of the world and the legal and policy framework that must be established to reach this goal. Already now, Europe is importing biofuels and their basic materials from South America and Southeast Asia. Hydrogen produced using renewable energy, wood from sustainable forestry and liquid biogas are further options for the future.

Current situation

The European Union has cooperation agreements with all of its neighbor countries. Furthermore, the EU works together with other states within the framework of numerous international agreements and institutions. The EU's most important source of leverage in expanding the goals and instruments of its common energy policy to its neighbor countries remains its accession negotiations. These, however, are unlikely to be expanded beyond the current circle of candidates in the coming years. The European Energy Community Treaty that the EU concluded with the western Balkan states several years ago provides opportunities for energy market integration below the threshold of full EU membership. Beyond the borders of Europe – in particular with a view toward the southern Mediterranean-rim countries – the additional option of close cooperation is available within the framework of instruments to be developed within the UN Framework Convention on Climate Change.

General cooperation

The EU's energy policy cooperation with its neighbors is integral to existing political and economic cooperation frameworks. New treaties and financial support instruments must be based on this foundation.

European Economic Area (EEA)

Norway is and will remain one of the European Union's most important partners in terms of energy policy. Today, Norway is one of the most important suppliers of oil and gas for the EU. In future, the country would like to use its very high potential for offshore wind and hydro energy to export green power to the EU. The Norwegian government also plans to use former gas reservoirs to store CO₂ captured using CCS technology.

The EU's cooperation with Norway is governed in the Agreement on the European Economic Area (EEA), which makes the country an integral part of Europe's single energy market. Customs duties between member states were abolished in the EEA, and approximately 80% of the EU's single-market regulations apply.

Iceland, a candidate for EU membership, is also an EEA member.

Accession negotiations

Accession negotiations remain the most important instrument with which the EU can apply its legal order to partner countries. In addition to adopting the EU *acquis*, membership candidates become eligible for special financial aids and are gradually integrated into common infrastructure such as trans-European power grids.

Iceland, Croatia and Turkey are candidates with ongoing negotiations. Iceland generates most of its electricity using geothermal and hydro power, but it is too remote to export power to the European mainland directly. The export of hydrogen in tankers, and of energy-intensive products such as aluminum would be conceivable, however.

Croatia has great potential for wind and solar energy and is an important energy transit country for southeastern Europe and central Asia. Along with other western Balkan countries, Croatia is already one of the EU's most important partners in realizing the Nabucco gas pipeline. Croatia could also become an important transit country for electricity within the framework of the European Energy Community Treaty.

Turkey plays a central role as an energy hub in all visions of a trans-European energy infrastructure. To date, political considerations have revolved almost exclusively around the development of oil and gas transport infrastructure rather than the renewable energy sector, despite the fact that Turkey has considerable potential for generating electricity from renewable sources of energy.

Other relevant countries in the region include Macedonia as a membership candidate without current negotiations, applicants Albania, Montenegro and Serbia, and Bosnia-Herzegovina and Kosovo, which have been named by the EU as further potential membership candidates.

Neighborhood agreements

The European neighborhood policy (ENP) was developed in connection with the EU enlargement in 2004. Its objective is to prevent new dividing lines from appearing between the enlarged EU and its neighbors by strengthening the affluence, stability and security of all involved countries. The primary instruments of neighborhood policy are bilateral neighborhood agreements between the EU and the countries of eastern Europe and the Mediterranean. Such agreements state shared goals, including closer energy-policy cooperation in many cases. Joint projects can be supported by EU financing instruments. The European neighborhood policy has since

been differentiated and developed on separate tracks in the Eastern Partnership and the Union for the Mediterranean.

The Eastern Partnership is an association agreement between the European Union and Armenia, Azerbaijan, Georgia, Moldova, Ukraine and Belarus initiated on 26 May 2008. The inaugural summit was held in Prague on 7 May 2009. One of the dominant topics during the founding process was the partner countries' perceived strong dependence on Russian energy imports and the wish for greater integration with western Europe's energy infrastructure. Some partner countries, in particular Azerbaijan, Georgia and Ukraine (and possibly Belarus in future) are themselves important energy exporters or transit countries. The primary interest of the partner countries to date, however, remains the diversification of fossil-fuel supplies and – in Ukraine's case – the expansion of nuclear energy.

The Union for the Mediterranean was inaugurated with a ceremonial summit in Paris on 12 July 2008. It is an evolution of the EU's previous Mediterranean policy, which was initiated at the Euro-Mediterranean Conference of Ministers of Foreign Affairs in Barcelona in 1995 – hence the Barcelona Process. In addition to Albania, Algeria, Egypt, Israel, Jordan, Lebanon, Mauretania, Morocco, the Palestinian Territories, Syria, Tunisia and Turkey as the EU's previous Mediterranean partners, Bosnia and Herzegovina, Croatia, Monaco and Montenegro are now also members of the Union for the Mediterranean. A co-presidency system ensures that the Mediterranean countries are integrated more tightly into the partnership. Establishing a secretariat in Barcelona is intended to underscore the strong project orientation of the Union for the Mediterranean.

Six priority projects were stated in the declaration of the Union for the Mediterranean's inaugural summit, including the Mediterranean Solar Plan alternative energy project, in which the German and French governments among others intend to become particularly involved. While the focus of the Solar Plan is the expansion of renewable energy technologies such as solar-thermal power, it also encompasses the deployment of wind power and photovoltaic technology. New alternative-energy capacities of 20 gigawatts are scheduled to be in place by 2020. While not explicitly mentioned in the summit document, the Solar Plan will also support private business initiatives such as Desertec, a project by a European consortium.

Cooperation with Russia and Central Asia

At the EU-Russia summit on 31 May and 1 June 2010, both sides agreed on a «Partnership for Modernization» in which energy policy cooperation and the mitigation of climate change – through joint projects in the research and technology sectors, for example – play a major role. The current partnership builds on the 1994 Partnership and Cooperation Agreement. The TACIS support program was founded in the early 1990s to support the goals of the partnership agreement.

To date, however, energy policy cooperation with Russia is largely marked by bilateral action, both at the state and private-sector levels. While the partnership has concentrated on investment and import agreements related to oil and gas, cooperation related to climate protection is also gaining importance for the Russian side. Russia's potentials, which are both vast and economical to exploit, have made increasing energy efficiency the partnership's primary focus, however.

Russia's potential for renewable energy – not only in terms of hydroelectric power – is also substantial, yet national legislation and the creation of financial incentives to that end are still in their infancy.

The states of Central Asia, with which the EU cooperates within individual partnership agreements, are geographically too far away to act as direct exporters of electricity, at least in the medium term. The regional strategy for assistance to Central Asia adopted by the EU in 2007 does not go into specifics regarding cooperation in the renewable-energy sector; it does,

however, mention the option of joint-implementation projects in the Framework Convention on Climate Change.

Gulf Cooperation Council

The goal of the cooperation agreement between the countries of the Gulf Cooperation Council and the EU is to promote business and technical partnership, the focus naturally being on the energy sector. In recent years, a number of Gulf states have shown considerable interest in developing renewable sources of energy, and this is also reflected in Abu Dhabi's successful bid to host IRENA. Nevertheless, topics such as cooperation between companies of the energy industry and joint analyses of trade with crude oil, natural gas and petrochemical products remain central to the partnership. The states of the Gulf region do not belong to the EU's immediate neighbors. They cannot be neglected in the overall picture, however, as they are among Europe's most important suppliers of energy with their exports of oil and gas – liquefied gas in particular. They also play a significant role in international climate protection diplomacy, and are likely to be major investors in renewable sources of energy in the future – in their own region and in the Mediterranean.

Energy policy treaties

In addition to general-purpose instruments of cooperation between the EU and its neighbors, a number of forms of partnership specific to energy policy have been put in place in recent years. Some, like the European Energy Charter Treaty, date back to the attempt to develop rules for a common European energy region immediately after the Cold War. By contrast, the European Energy Community Treaty is the result of the Stability Pact for the Balkans and the aim to promote regional partnership and stability through cooperation in energy policy.

Energy Charter Treaty

The Energy Charter Treaty (ECT) was signed in 1994 and represents an attempt to apply the WTO's free-trade rules to the trans-European energy sector. The treaty took effect in 1998 and has since been signed by 41 countries and the European Union. However, the protocols governing investment and energy transit central to the treaty have not been signed by the most important energy exporters, Norway and Russia. In summer 2009, the Russian cabinet moved to suspend the treaty. Both Russia (Medvedev proposal) and the EU (Buzek/Delors paper on an energy community) have since made several proposals for incorporating elements of the Energy Charter Treaty into a new treaty or the Partnership and Cooperation Agreement between the EU and Russia.

Renewable energy received only little attention at the time the Energy Charter Treaty was drawn up. Its goals do include environmental and climate protection, however. Should elements of the Energy Charter Treaty be integrated into the existing Partnership and Cooperation Agreement or an entirely new treaty governing pan-European cooperation in the energy sector, it would be essential to ensure that environmental protection goals are strengthened and the important role of renewable sources of energy are expressly stated.

European Energy Community Treaty

The EU single energy market is already being expanded toward southeastern Europe with the European Energy Community (EEC), which encompasses the EU and the signatories of the Stability Pact for the Balkans. The EEC treaty provides a common legal framework for the energy markets of all member states and extends the *acquis* of the single energy market to all participating states. Relevant provisions from energy, environmental and competition laws have also been incorporated, covering the markets for electricity, gas and petrochemical products. The electricity and gas markets of the former Yugoslav states and those of Albania were already unified within the framework of the Stability Pact. The EEC amounts to a *de facto* partial integration of these countries into the EU single market. Ukraine and Moldova have also signed the treaty, but have yet to ratify it. Turkey, Norway and Georgia are contemplating the same step.

The EEC is currently the most far-reaching integration offer in the energy sector that the EU is extending to its neighbors and represents one of the most pronounced forms of gradual integration. Expanding and deepening the EEC to promote and establish a privileged position for renewable energy would therefore be worth considering.

Regional cooperation within the framework of international treaties

Global programs such as the UN Framework Convention on Climate Change and the regional programs of the UN are parts of the existing governance structure within which renewable sources of energy will be developed.

A number of public-private partnerships with the involvement of European governments (such as the Renewable Energy & Energy Efficiency Partnership, REEEP) also exist, but these will all be absorbed in the International Renewable Energy Agency (IRENA) in future. The relationship of these institutions to a European Community for Renewable Energy (ERENE) would require clarification.

UN Framework Convention on Climate Change

Industrialized and developing countries are negotiating the global limitation of greenhouse gas emissions within the framework of the UN Framework Convention on Climate Change (UNFCCC). In addition to absolute cuts in greenhouse gas emissions on the part of industrialized countries arising from these talks, we can also expect numerous developing and newly industrialized countries to commit to national low-carbon development plans. Such voluntary commitments – to the extent that they can be measured, reported and verified – will serve as the basis for financial support by the international community. National goals for the development of renewable energy will also be stated within this context. We can anticipate the creation of dedicated financing instruments for renewable energy within the future framework of the financing mechanism for a new global climate treaty (see below).

Regional UN organizations such as the UNEP environmental program and the UNDP development program will also shoulder important tasks in implementing UNFCCC commitments. Both programs are already running environmental, climate and energy policy projects and consultation programs in Europe and neighboring states, making them well-suited as partners for regional initiatives to promote renewable energy (e.g. Desertec / Plan Solaire).

IRENA

The International Renewable Energy Agency (IRENA) was founded in 2009 with the objective of promoting the introduction and use of renewable energy worldwide. The European Union and the majority of its neighbor countries belong to its founding members. IRENA intends to act as a lobby for renewable energy sources within the international system. The organization was initially established outside of the UN system. It was designed to act as a counterweight to the International Energy Agency (IEA), which to date has done too little to promote the cause of renewable energy in the estimation of the founder countries.

IRENA's role will be to assist both industrialized and developing countries in establishing suitable regulatory frameworks and appropriate administrative and economic capacities for the development of their renewable energy potential. The organization will also serve as a source of technical data and promote the transfer of technology and best practices. In doing so, IRENA will depend on close cooperation with the other regional and international institutions and funds named herein.

Financial cooperation within the framework of development banks

In addition to private financial resources, public funding – which is likely to be available only to a very limited degree in EU, member country and partner country budgets – will be required to finance preliminary studies, pilot projects, and ultimately a common energy infrastructure. The World Bank and regional development banks such as the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB) and the African Development Bank will therefore play a decisive role here.

Important preliminary decisions with regard to the conditions and scope in which multilateral development banks can invest in renewable energy will be made in the current negotiations related to a new financial architecture for global climate protection.

The EU, however, will already have the opportunity in the run-up to focus the funding priorities and guidelines of development banks in which it is involved more strongly on renewable sources of energy.

Perspectives

A wide range of institutions and instruments are already available for cooperation between the EU and its partner countries with regard to energy policy, and these instruments should be given priority. Existing treaties should also be reviewed to ensure that environmental protection issues and the sustainable use of energy resources are given the appropriate weight in accordance with EU climate protection goals.

The amendment of the European Treaties within the framework of the Lisbon Treaty made it apparent that the member states would like to place greater importance on energy policy in future. The European Commission was deliberately not given additional decision-making powers, however. The Commission could nevertheless use its existing powers more effectively for policy coordination subject to the expansion and institutionalization of its technical support.

The EU has attached growing importance to renewable sources of energy in its 2008 climate package. Differences of opinion nevertheless exist between individual member states with regard to the total share that alternative energy can and should provide, and by when this should occur. In the face of these conflicting demands, increasing the decision-making powers of the EU – for example by establishing a European Community

for Renewable Energy (ERENE) as proposed by Michael Schreyer and Luz Mez – could contribute to an enhanced economic and legal framework and sustainable financing for desired public and private investment in an energy infrastructure based on renewable energy sources. The preceding inventory and analysis of existing institutions and cooperation formats prompts the following additional recommendations for improving the EU's external relations in the energy sector, with special consideration for stronger support of alternative energy.

Coordination of national climate action programs

One of the greatest challenges for the newly-industrialized and transformation countries in the European Union's immediate neighborhood will be to develop national climate protection programs in accordance with the UNFCCC and to set up financing plans appropriate to those objectives. The development of renewable sources of energy must be a significant element of all national climate protection programs. ERENE should help the EU's neighbor countries recognize their potential for reaching their climate protection goals and develop the capacities to realize them. Improving the availability of economic data in the alternative energy sector and thus the ability to measure, present and verify investments in accordance with the UN's requirements will be a decisive factor for the full integration of renewable sources of energy in the climate protection programs of developing and newly-industrialized countries in Europe's neighborhood.

Extending the single market for electricity beyond the borders of the European Union in a way that will make importing electricity from renewable sources technically feasible will also require a common master plan for the future pan-European energy infrastructure. In developing that plan, care must be taken to prevent individual countries and consortia from pushing ahead with parallel, competing infrastructure projects – as is the case in the gas sector today. Ultimately, the decision to renounce costly but prestigious parallel projects can only be made at the political level. Better data availability with regard to expected costs and benefits can help put these impending decisions on a rational foundation. The European Commission – with support from an agency for alternative energy yet to be established – would perhaps be in the best position at the moment to fulfill those requirements.

Bundling financial instruments

Significant public funding will be available via national and EU budgets and new international financing instruments in the Framework Convention on Climate Change to support the vast private investments that the transition of Europe's power supply to renewable sources of energy will entail. In light of previous experiences with energy policy strongly shaped by national interests and institutional egoism, it will be vital to coordinate the allocation of public funds – all of which ultimately come from taxpayers' pockets –, concentrate on focused projects, and to use shared goals and criteria for orientation.

At present, it cannot be foreseen whether Europe's finance ministers will transfer the responsibility for coordination and decision-making related to bilateral and multilateral financial contributions to fight climate change to community institutions. Therefore, the existing donor coordination mechanisms within the framework of the OECD's Development Assistance Committee, and in future within the UNFCCC, must be used to a greater extent together with the partner countries to formalize technical requirements and criteria for promoting renewable energy.

Improving the legal framework for energy trade and investment

The most important obstacle in the way of long-term investment in international infrastructure for renewable energy will presumably not be a shortage of public and private funds, but the lack of a suitable legal framework to provide security for planned investments over the long run. The single EU energy market, which should be expanded to further neighbor countries in the manner of the European Energy Community Treaty, would provide a fitting foundation here.

In light of the numerous competing projects in the renewable energy sector, countries investing today in an export-oriented power generation industry based on renewable sources of energy also need firm, long-term delivery contracts; these can only be negotiated by the private sector, however. As with ongoing negotiations in the oil and gas sectors, such talks must receive governmental support, especially in dialog with partner countries in which state structures dominate the energy sector.

The EU Commission would be the suitable vehicle for such negotiation processes, complemented by the technical expertise of a community or agency for alternative energy yet to be established.

Involvement of civil society and local interests

Major infrastructure projects, including those in the renewable energy sector, may impact the interests of local communities and groups in civil society. The EU's goal must therefore be to ensure transparent and participatory decision-making processes also for international projects, and to realize them in its own practice (by integrating European NGO networks and representatives of municipal interests) and its dialog with partner countries.

Common representation of interests in regional and international bodies

Bundling individual policy initiatives to promote renewable energy, creating a suitable legal framework and pooling financial support will only be possible if the EU and its partners jointly safeguard their interests in international decision-making bodies such as the UNFCCC (for taking alternative energy into account in national climate protection programs), the World Bank (for financing) and the World Trade Organization (for the legal framework).

The newly-established European External Action Service can play a key role here. To ensure its success, suitable technical expertise must be established within the EEAS, for example by the secondment of experts from the environmental and energy ministries of the member states.

In the run-up to future negotiations of the UNFCCC, WTO and other relevant decision-making bodies, the EU should coordinate its positions with its neighbor countries via the EEAS in order to speak with one voice.

Conclusion

A number of instruments and existing agreements are currently available to the EU in expanding its cooperation with partner countries, also in the alternative energy sector. The success of these efforts naturally depends on the degree to which the EU can awaken the economic interest of partner countries in developing renewable sources of energy and the attendant international infrastructure. Experience with infrastructure projects in other fields (the Nabucco gas pipeline, for example) has shown that political decision-making processes frequently move ahead slowly and views related to economic prerequisites often diverge widely.

In its relations with neighbor countries, it will remain necessary for the EU to distinguish between accession candidates and others, between neighbors in the East and the South, and between alternative-energy pioneers and skeptics. It will therefore need to apply the notion of variable geometry to its partnerships in this sector as well.

The Lisbon Treaty strengthened the political value of the topic of energy, but without transferring notable additional decision-making power to community institutions. Further treaty amendments in this field cannot be expected in the foreseeable future. This limits the options of the European Union with regard to maintaining a coherent energy policy vis-à-vis third countries, as it can only coordinate vital aspects of member-state policy – that related to financing instruments, for example – and when in doubt, it must rely on the member states to put their individual national interests in the back seat. The added value of institutional innovations – such as a European Community for Renewable Energy – would nevertheless be substantial, if it were possible to coordinate the numerous existing lines of cooperation effectively, to align them with international political processes such as the UNFCCC, and to provide them with adequate technical support.

Berlin, December 2010

Sources

Heinrich Böll Foundation (ed.): ERENE – European Community for Renewable Energy, Berlin 2008.
Lesage, D.; Van de Graaf, T.; Westphal, K.:
Global Energy Governance in a Multipolar World, Farnham 2010.
Müller-Kraenner, S.: Energy Security, Earthscan, London, 2008

Sascha Müller-Kraenner is the Managing Director of The Nature Conservancy in Europe, a leading international conservation organisation with over one million members and supporters as well as programmes in 30 countries. From 2003-2006, Sascha Müller-Kraenner served as the Heinrich Böll Foundation's Director for Europe and North America, as well as head of the Foundation's program on foreign and security policy. From 1998 - 2002 he served as Director of the Foundation's office in Washington DC. Sascha Müller-Kraenner is also one of the founders and a Partner of Ecologic Institute, Berlin. In April 2008, he became Vice-Chairman of the Ecologic Institute in Washington DC - Ecologic's presence in the United States.

Sascha Müller-Kraenner has published extensively on international relations, European integration and environmental diplomacy and the United Nation's climate change treaty. His latest book «Energy Security» was published in 2008.

More information on the work of the Heinrich Böll Foundation regarding European energy policy, and the development of a «European Community for Renewable Energy» (ERENE) at www.ereene.org

Contact:

Heinrich Böll Foundation
EU/North America Department
Schumannstr. 8
10117 Berlin
Germany
Email: ereene@boell.de



This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.