2011-2020: Setting the Course for a Decentralised and Renewable EU Energy Future 2050

Response of Climate Alliance to the European Commission stock taking document "Towards a new energy strategy for Europe 2011-2020"

*The **Climate Alliance of European Cities with Indigenous Rainforest Peoples** is the largest local and regional authorities' network for climate protection in Europe and is now for 20 years engaged in reducing greenhouse gas emissions in the cities of the industrialised North and conserving the rainforests in the South of the planet.*

Climate Alliance represents more than 1,500 local authorities in 17 European countries. When adhering to Climate Alliance, cities and municipalities commit to the ambitious target to reduce their CO_2 emissions by 10 % every 5 years and to halve them until 2030 (baseline year 1990) at the latest. Climate Alliance provides help to the municipalities by fostering exchange of experience, developing methods and tools for cities to set up and implement climate action plans and organising campaigns to involve citizens directly in the design of a sustainable energy future.

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Climate Alliance very much welcomes the initiative to discuss the energy strategy for Europe 2011-2020. Considering the future challenges posed by ending fossil fuel reserves and climate change, a thorough re-thinking of how we produce and consume energy is indeed needed. As organisation active in climate change policies we are pleased that the paper addresses the issues of the promotion of a low-carbon energy system, energy efficiency and renewable energies. We also note with pleasure, that the European Union highlights the role of local and regional authorities. With the EU Energy and Climate Package and the foreseen Energy Strategy 2011-2020, the ground is prepared for a European process of moving towards a sustainable energy future.

However, Climate Alliance strongly believes that some fundamental issues should be sharpened or addressed in a different way in order to achieve the ambitious EU targets: The long-term vision of a sustainable energy future will only be achievable by realising the enormous potentials of a decentralised energy system based on renewable energy sources with the local and regional level as central pillars.

To start, Climate Alliance wants to react on the following paragraph: *"For de-carbonising the EU's electricity generation capacities, massive expansion of renewable energy will be needed (in particular to reach the 20 % renewable energy target), alongside other low carbon energy sources including nuclear energy for Member States that choose to have this source in their energy mix."*

We would like to highlight that the future energy production should be based on regionally available renewable energy sources. The shift to renewable energies is possible and recommended. A commitment to use mainly renewable energies should be made at all levels: EU, national and local level. Though, since the possibilities and preferences of which types of renewable energies to use varies across Europe, the actual decisions should be made at the local level and include public participation. A mixture of the different renewable energies should be promoted to guarantee a sustainable future.

A European challenge: the creation of framework conditions to build efficient, decentralised renewable solutions

An adequate European legislative framework is needed in support of the transition towards renewable energy sources, like phasing out subsidies for fossil and nuclear energy and implementing an EU-wide carbon tax.

The stock taking document highlights the completion of the internal energy market as a pre-condition to achieve a "*high level of safety and security for energy supply and use.*" On the other hand, it is stated that the "*energy savings potential continues to be greatly underutilised*". A major inconsistency in the stock taking document is (still) the contradiction between the creation of a European free internal market and the decentralisation of energy supply with fundamental questions remaining open:

- How to provide incentives for energy efficiency in a price-driven internal energy market?
- How to best exploit the potentials of the various locally available renewable energy sources under the conditions of a free Europe-wide electricity market (e.g. cheap wind energy from the sea with long-distance transmission vs. locally available, but more expensive geothermal energy)?
- How to design smart grids under market conditions? The switch from current distribution networks to smart grids is a very small-scale planning task, which needs to coordinate local production and consumption in complex patterns of ownership and customer-supplier relationships.

Heating and cooling being the second pillar in energy supply, remains completely unmentioned in the stock taking document, especially with regards to the close links between heat and power generation (CHPs) and its effects on energy efficiency.

Local action is in place, but coherent efforts from all levels are needed

Good examples of local level action[1] already exist and practical innovations to reduce emissions and ensuring cautious use of resources to optimise urban systems are already taking place. Many of the 1,500 local authorities in Climate Alliance can look back on 20 years of local engagement in exploiting the potentials of energy saving and energy efficiency as well as producing energy from locally available renewable energy sources. Especially in view of "peak-oil", more and more municipalities and regions

[1] See for example "Solutions for Change- How local governments are making a difference in climate protection" (http://www.climatealliance.org/fileadmin/inhalte/dokumente/LGCP-Solutions-for-Change_en_01.pdf)

are committing themselves to a 100% renewable target, building on the impacts on the regional economy of insulation, new heating and renewable power plant installation and getting step by step more independent from ending (= more expensive) energy imports. This development will of course also contribute to less need to rely on third countries to deliver energy.

The European Commission launched the Covenant of Mayors as a sign of its recognition of the local level contribution to the European 3 x 20 targets and up to now, 1800 local authorities have unilaterally declared their readiness to do so. In the view of Climate Alliance members (who have already committed to the Climate Alliance target), this recognition has to be followed by concrete support. As mentioned in the document, *"... the delivery of the 2020 goals will imply a coordinated effort at all levels..."*. Climate Alliance totally agrees with this statement, but it has to be realised coherently:

- The usual process (1. Declaration, how important the local level is, 2. Not foresee or cut initially foreseen legal powers and funding for the local level) has definitively to be abandoned.
- This recognition has to find expression in concrete capacity building and technical support as well as adaptation of the framework of laws and taxes where local authorities operate.
- Above all, the EU has to allocate financial support to encourage more cities to get involved in local energy and climate change policies. In their resolution on the allocation of remaining funds in the European Economic Recovery Plan[2], the Climate Alliance members already proposed some suitable schemes, such as a leveraging tool under the administration of financial institutions (by providing smaller sized loans directly to cities or through "global loans" to local banks for municipally linked actions like zero interest loans or "micro credits", to provide a guarantee for the risk of default in efficiency and decentralised renewables, to set up dedicated public-private partnerships to provide energy services, and to stimulate new CO_2 reducing technologies and green economy companies.

Getting the citizens involved

Alongside with local authority action, public participation is crucial. Climate Alliance does not agree with the statement made in the stock taking document that *"[...] the Commission will examine how to accelerate authorisation procedures, taking into account that local communities are often resistant to energy infrastructure in their neighbourhood, and how to increase coordination between Member States to achieve key infrastructure projects of European interest."* This demonstrates a misunderstanding about the role of local level action and public participation. Civil society tends to be resistant only to projects that are planned on centralised level and in which they haven't had any possibility to take part and express their opinion, and where they do not see any benefit. It is within the power of local authorities to influence the energy choices of their citizens. At the

[2] "Cities investing in energy efficiency and renewable energy sources are the drivers of economic recovery!" Resolution of the Climate Alliance General Assembly 2010 regarding the allocation of remaining funds in the European Economic Recovery Plan to cities (http://www.climatealliance.org/resolutions0.html?&L=0#c2605)

same time in a decentralised energy system, each citizen is not only an energy consumer, but also a potential energy producer. Participation has therefore also a mobilisation effect. Hence, citizens and other stakeholders should be involved in all decision-making processes. A more transparent and democratic process ensures the long-term acceptance, viability and support of the local energy strategy. Public participation, information and awareness-raising about energy issues are the key to implement the EU Climate Action and Energy Package.

No waste of money and time with dead-end technologies

The document states that *"(the grids) must also become more flexible, to allow integration of renewable and new low carbon technologies, such as CCS, into the network"*. We would like to highlight the fact, that the CCS technology includes many risks that are not investigated enough: First, the application of CCS technology increases the consumption of fossil fuels by up to 40%, the transport and storage of the CO_2 would require huge investments and includes many safety risks. CCS would also compete for storage sites with other possible uses, like the use of geothermal energy or storage of energy via blast in hollow spaces. The liability issues also remain unsolved: operators of power stations might be released from liability after 20 - 30 years and leaving the risks for the society[3]. This possible danger should definitely be taken seriously.[4]

A major concern is also, that the development of CCS technology would compete and undermine funding for other more sustainable solutions. CCS is normally sold as a bridging solution, but this would imply that it needs to be applied immediately, which is, according to the problems mentioned above, simply not possible. A phase of CCS research and application will ultimately pull resources away from the development of the sustainable energy sources that CCS is designed to transition into. But why spend huge resources for another end-of-pipe technology instead of directly investing in the desperately needed sustainable solutions? Energy efficiency and renewable energies are safe, cost-effective solutions that carry none of the risks of the CCS technology[5].

Technology innovation and technology application

Climate Alliance shares the opinion of the stock taking document that energy technology innovation investments are important. However, it would be important to clarify exactly on what we should invest on. The SET-Plan should push technologies towards a consistent electricity system based on 100 % renewable energies in 2050. Research and development on electricity and other energy storage systems are crucial.

A variety of technologies are ready for use: It's not necessarily the technology itself that needs development investments, instead investments are

[3] For more information see the German Federal Environment Agency's report "CCS – environmental protection framework for an emerging technology", 2009 (http://www.umweltdaten.de/publikationen/fpdf-l/3867.pdf).
[4] Please also note the study of SRU (Sachverständigenrat für Umweltfragen): "Abscheidung, Transport und Speicherung von Kohlendioxid" 2009 (in German): http://www.umweltrat.de/cae/servlet/contentblob/468434/publicationFile/35871/2009_Stellung_Abscheidung_Transport_und_Speicherung_von_Kohlendioxid.pdf
[5] The resolution can be found here: http://www.klimabuendnis.org/fileadmin/inhalte/dokumente/kb-position-CCS- 2009_02.pdf (in german)

needed to start using these technologies on a wider scale. The importance of changing the energy network systems to be able to fully integrate the use of renewable energy and different energy saving systems should be the core line for investments. Technological innovation in itself isn't an answer if it's not accompanied by policies and other initiatives that support the wide use of these technological innovations. The launch of a dedicated set of large industrial innovation programmes of strategic importance for European energy future alone is not necessarily going to help us to meet the 20 % goal. In addition, the local aspects of energy production (= technology application) and to get these technologies accessible in local planning are a key issue.

Investments in energy efficiency and local renewable energies would also boost employment. The creation of green jobs could help to match economical revival and climate protection. The use of locally available renewable energy resources and energy efficiency is fundamental to stabilise local economies, create jobs, reduce energy poverty and decrease dependence from ending fossil fuels. Sustainable energy policies would contribute both to short-term stimulation and longer-term restructuring of the EU's economy, making it more resilient to future economic crises. For example, the allocation of the unspent funds from the EERP to cities (see above) would be an important signal that the commitment of the local level is recognised.

Energy and climate justice

An issue becoming more and more important also in Europe is climate justice. It implies for the energy sector for instance, that all people have access to energy services. On the global scale, Europe is consuming and has consumed a great amount of energy, most of it produced by fossil fuels: Its contribution to climate change is a major one, while the consequences of climate change are being felt mainly by those who are responsible for a very small part of the global greenhouse gas emissions. Climate change is also a threat for the achievement of the Millennium Development Goals (MDG). We do have a huge responsibility to contribute on full scale to climate change mitigation and also to support the developing countries in their adaptation and mitigation actions. At the same time, it is important to have a critical review on the renewable energies (e.g. biofuels) in terms of their contribution to the destruction of ecosystems like rainforests and the displacement of Indigenous Peoples, local communities, farmers and others.

The equalisation of energy consumption between developing and developed countries is a fundamental question and we cannot do our part without targeting our own energy consumption. Effective actions targeted to reduce overall energy consumption and reduce peaks have to be taken. Awareness-raising amongst European citizen about energy justice and about different ways to reduce personal energy consumption is essential.

But energy justice is also of direct concern to European citizens. Already existing high differences of income between and inside Member States are affecting people's capability to afford energy. With the *"days of cheap energy being definitively over"*, energy poverty is a threat and energy and energy services become a central topic in social cohesion. Therefore, EU level funding for sustainable energy projects and energy efficiency

targeted to especially those communities that don't possess the needed funds and capabilities to deliver energy at affordable prices to their citizen should be proposed.

To close: A long term vision with a wider perspective is needed

It is obvious that a European Energy Strategy 2011-2020 will have to set the course for the policies for a 2050 target year. It will therefore have to be embedded in this vision and any action taken now (= the next ten years) should be coherent with these long-term objectives, foreseen to be developed in the 'Roadmap for a Low-Carbon Energy System by 2050'. With the investment horizon in the electricity sector in a range of 50 years, planning reliability will be an important element of energy supply security.

Also, the perspective of the document should be widened. It's not sufficient to only switch to low carbon technology. Since climate change is already happening we need measures and technologies which follow mitigation and adaptation. Experiences show that synergies between mitigation and adaptation can be very efficient for project design at local and regional level in specific sectors like renewable energy (e.g. heat waves – trigeneration (simultaneous production of mechanical power, heat and cooling); storms – decentralisation with renewable energies, etc.). The synergies become even clearer when looking at situations like the heat wave 2003 in Europe and the need to reduce power production in large-scale power plants due to lack of cooling capacities: Security of energy supply will be higher in a decentralised energy system.

By setting the target now to locally led energy markets based on energy efficiency and renewable energies, Europe has the best chances for a sustainable and secure energy future.

Climate Alliance is willing to fully support the process of an Energy Strategy for Europe and offers its co-operation to the European Union.