



Public consultation "Promotion of Heating and Cooling from Renewable Energies"

Contribution of Energie-Cités
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Considering that a number of technologies are available to promote Heating and Cooling from renewable energies (RES), what are the main obstacles (economic, technological, social, organizational, etc) to their more widespread use? Why are other energy sources more successful in Heating and Cooling than RES? (optional)

Amongst many factors that have been identified in many studies, we would like to notice the followings:

- **Market availability:** in case of traditional energy sources, infrastructure is already in place: you just have to ask your existing / visible / traditional suppliers for a connection to be supplied. Sometimes, the pressure of suppliers is so strong that energy has already been decided instead of the future owner! On the contrary, thermal solar is promoted by SMEs or artisans if they are informed, motivated, trained and made economically interested, which is still rather an exception. For wood chips or pellets, your supply needs to be secured by one (or several) local suppliers. When such conditions are fulfilled, it works! We may also observe what generally called "geothermy" (actually heat pump) is promoted successfully by electricity suppliers.
- **Cultural:** despite recent evolutions in some countries, RES remains to be considered as "marginal" what explains that, for instance, a local authority may be ready to install pilot projects rather than develop a strategy to widespread RES solutions. In addition, RES remain too often inside the "energy sphere" although they are linked with some other aspects, for instance for wood energy: forestry, waste, local jobs, rural activities, fuel poverty, etc...
- **Economical:** due to a lack of economies of scale, most RES investments are more expensive than traditional solutions. Financial constraints often force local authorities, or other local investors, to transfer energy expenditures on operational costs, instead of appropriately design the investment. It is myopic choice leading to distortions on the longer term!
- **Awareness:** Lack of awareness and knowledge of successful achievements (good practices).
- **Legislation:** A strong pressure of traditional suppliers` monopolies / oligopolies to force legislation towards individual heating equipments (i.e, small gas boilers) is a big obstacle for large scale heating based on biomass (i.e. through district heating) and also thermal solar in collective buildings. Furthurmore, European and national schemes also prioritize (subsidize) conventional energies, thus biomass for instance is strongly discouraged.
- **Organisational:** Centralised countries have discouraged the local level to be involved in energy issues. Local authorities being not in charge of energy management, has also strong consequences in (not) developing RES. This is why we need a stronger recognition of the role of local authorities (Las) in sustainable energy policies at EU level.

In the light of the subsidiarity principle, do you agree that an EU initiative regarding the promotion of Heating and Cooling from RES can be justified? If so, what type of effective measures should be taken by the EU? (optional)

The subsidiarity principle is a wrong argument when it is used to maintain unacceptable status quo.

Indeed, supplying heating and cooling is the right example for the subsidiarity principle to be applied to energy supply, according to the following hierarchy:

1. Energy saving : reducing the energy needs is the main priority for sustainable development and employment (this is mainly a local issue in buildings and transport)
2. Using local renewable / recovery resources for supplying heating, and then keeping "at home" energy expenses to feed local development
3. Finally, all the above mentioned aspects must be applied in an integrated way (energy saving, RES and CHP) to limit the use of exogenous energy.

Therefore the EU should say that heating and cooling (and in many ways electricity) must be reconsidered under the principle of energy-subsidiarity: supplying firstly from local potentials (energy saving, local RES), and only importing from externally what is missing, if any.

Accordingly, support given to local initiatives is fully justified, because it is the only way to reach EU objectives (EE, RES, CHP, Buildings, etc.). However, the issue is broader. Therefore there is an urgent need for an initiative by the Commission (through for example, a Communication on the indispensable role of local and regional authorities' policies to reach EU targets - see the demand of Energie-Cités addressed to the Commissioner in July 2006).

Nobody could contest such evidence and member states, through their national Sustainable Energy Action Plans should integrate the relevant tasks of LAs, which could be supported by the national policy (Energie-Cités would like to avoid a separation between EE and RES, the integration of the two being the most efficient and cost effective way to succeed). No progress is expected without such integration. We are often afraid when, in certain conferences, RES material suppliers do not have any word for energy efficiency: we must absolutely avoid using biomass / solar to supply inefficient buildings!

There is a need to identify possible ways to overcome the reasons why this type of energy is not more widely spread. A major role in this is the attitude of end-users, and the potential cost disadvantage, including transaction costs or lack of convenience of some energy sources. Considering all these factors, do you believe that there is a case for a local market for Heating and Cooling from RES strong enough to justify action at EU level? (optional)

Invoking the attitude of "end users" does not reflect the reality, these end users being influenced "culturally" by the "official" energy system. On the opposite, the development of RES for heating during the last decade comes essentially from end-users, taking the risk to change their habits, thus initiated new markets. Providing to end-users with easy schemes (support mechanisms, etc.) to transform their "potential" interest into "practical" decisions, is definitively what is needed.

The local market can be dramatically influenced by some actions such as the followings:

- A **strong political message promoting RES** should be used to encourage local initiatives. Unfortunately, when hearing about energy from the media at EU scale, it refers regularly to traditional energies – gas, petrol - rather than for RES, which is a negative signal: showing that problems are to be solved far from citizens and other stakeholders, but they are in the hands of high level international negotiators!
- Defining **quantified objectives** is needed (share of the heating and cooling to be supplied from RES) that all 'territories' (house, blocks of flats, district, city, region, etc.) may integrate into their own strategies. EU objectives should reach the local level and benchmarking should boost further initiatives.
- We need not only a simple **recognition of the role of local authorities**, as well as the promotion of the fact that no EU objective could be reach without their strong involvement.
- Support **for study tours, dissemination of good practice** through modern ways (video) addressed to non specialists, for instance to inform the municipal council and encourage exchange of experiences, transfer of know how, etc.
- Organisation of an **EU competition to award the best territories** heat-supplied by RES: starting from a competition at regional, then national levels and at the end European with reportages on the best examples.
- **Campaigns to award good examples**, and encourage hesitating, reluctant people by facing them with a change in paradigm. For example, in some (rural) areas, people tend to say old-fashioned, "we *still* use wood for energy" when we said "you will *already* use wood for energy. Some slogans could be used at a large scale, for example: " Be modern, use RES!" "Prepare the energy future of you community, use RES!" "Reduce the energy vulnerability of your territory, use RES!"
- In addition, **national Sustainable Energy Action Plans** are needed, member states having the responsibility to manage the "orchestra" with the relevant stakeholders.

Taking into account the different conditions in Member States and regions, according to you, what are the current successful policies/measures on promoting Heating and Cooling from RES? At what level are these actions taken and who is responsible for their implementation? Are they cost effective? What are the success factors (tax incentives, financing schemes, social acceptance, others)? Are they transposable to another level? How? (optional)

The most successful initiatives have been taken at local / regional level, quite often using arguments and tools which are traditionally outside the "energy sphere": rural jobs, forestry, local economy, new markets for small (or part of) trees that cannot be used for other usages. For instance, the best region in Europe regarding a widespread implementation of wood energy installations is Styria in Austria, where, 20 years ago, Chambers of Agriculture started an initiative to prepare farmers for further changes before the entrance of Austria in the EU.

Ways are different for solar energy, but exception, regional support and local initiatives – including with SMEs and artisans in the building sector – have been the most important ones. How to explain that solar energy is so largely disseminated in Austria, where the sun does not shine more than in the South of France or in Italy? On the same way, Barcelona decided the so-called “solar ordinance”, making progressively this initiative also relevant for Catalonia, then Spain. However, the national framework, tax incentives and feed-in tariffs - especially in centralised countries, are essential. For instance, recent fiscal incentives in France are now stimulating hardly the market for both solar and wood energy.

In any case, we absolutely need “chains” of actors, vertically (from top to down and the opposite) and horizontally (local authorities, local stakeholders, representatives of a large spectrum of society).

There is no real problem of acceptance of wood energy, biogas and if any, these obstacles can be removed easily through awareness raising activities such as study tours where policies have been successful. For solar energy, the main problem is the quality of integration on roofs, for example in some regions where special tiles, such as ‘roman’ are implemented and in historic areas. Good practice should have to be more disseminated.

To overcome the obstacles of upfront investment costs - for both biomass and solar energy - special instruments as subsidies (coming not only from the “energy sector”) or third party financing are requested. For domestic applications, fiscal measures are really good incentives, receiving money transfer from the ministry of finances and avoiding bureaucracy related to subsidies have always been well appreciated.

There is a need to identify the best strategy to tackle this issue and how actions could deliver bigger benefits. Due account has to be taken to the potential effects on the use of energy sources (considering also their origin – domestic resources or imports). What would be the environmental, economic and social (employment) effects (positive and negative) of an initiative to promote Heating and Cooling from RES, specifically on the substitution of conventional energy sources? Please refer to examples and the appropriate level for action. (optional)

See above: we need to prove and explain much better what are the benefits in terms of local development: economic, employment, growth, security, less vulnerability, etc. Creat local value for energy supply should become an increasing part of economical activities (in addition to employment benefits related to energy savings).

One of the main issues is the low availability and weak quality of statistical data. What measures could be taken to address this situation and should the EU be involved in this process? Do you have knowledge of any reliable and consistent data on this sector? (optional)

No answer

Taking into account the quality and availability of EU 25 existing data (which is in many cases rather poor), what is the feasibility of using targets to the promotion of Heating and Cooling from RES? What type of targets should/could be used (on energy produced, on sales of equipment, on the number of installations, on the replacement rate of conventional fuels, etc)? (optional)

Share of heating/cooling supplied by RES (whatever the source) at various levels (see above)

Should harmonised indicators be developed at EU level to measure the potential and the development of Heating and Cooling from renewable energies? If so, what type of indicators and how could they be used to do this monitoring? How could these indicators be developed in a way that a level playing field could be raised at EU level? (optional)

No answer, except a rate of RES in the supply of any territory, from which we are able to benchmark

Developing standards could be one option to facilitate the implementation of energy efficient equipment and Heating and Cooling from RES. Standards would have also to take into account cultural or geographical characteristics (like architecture). This would imply a legal framework which provides for the political goals, while leaving the details to be defined by the European Standardisation bodies (CEN/CENELEC) and the stakeholders (industry) on how to achieve them. Should the EU promote the development of standards for RES in Heating and Cooling in order to raise a market for specific equipment? What type of standards could be used? Do you consider that fuel standards (for example) will improve the opening of the market? Would it be feasible to use standards that are currently used in other sectors? Please give evidence. (optional)

We probably need standards regarding equipments (especially to oblige companies to offer high quality products) and for certain services. However, in terms of resources, we should pay attention to the indispensable flexibility to take into account the type of local resources, habits, etc. especially for wood. For other fuels, such as biogas or biofuels, standard could be useful to be compatible with the standards of equipments.

In order to facilitate the development of a policy action to promote Heating and Cooling from RES, specific actions towards citizens should be considered as they are often the final decision makers. Would it be useful to facilitate training on the specific technology so that professionals are able to better promote it and install it? Who should facilitate that training? What measures could be taken to raise public awareness in order to promote/market this type of equipment/solution? (optional)

Citizens are final decision makers, but the domestic decision making process is more complex, the artisan/plumber/SME, being the main way to inform – and convince - the client. It is the reason to pay special attention to this part of the chain, which must be encouraged in promoting systems which change their own habits. We must be aware that major suppliers offer special gifts to enterprises installing equipment consuming gas or electricity! So distortion of competition should be avoided. In some cases, professional organisations have organised successfully training for artisans (those who build roofs have to be targeted for thermal solar, in addition with plumbers, for instance), these artisans being referenced as specialists as the result of their training. So, such initiatives make sense if a coherent policy is set up: incentives, medium/long term procedures, information, supply of RES, etc. It is why we need national Action Plans.

Who could be the main drivers to facilitate the dissemination of Heating and Cooling from RES? Should Local and Regional Energy Agencies be involved on articulating ESCOs, SMEs and Local authorities, providing them with instruments or creating platforms to pursue Heating and Cooling from RES? Is there a role for the Commission? How could this be done? Should local heat planning be pursued in order to take full advantage of the existing potential in a certain area? (optional)

Local authorities have certainly an important role to play, and in many ways the key role. If each LA has to prepare Local Energy Strategies / Action Plans to supply its territory (energy saving and RES + energy recovery), which should be integrated into the National Action Plans, their responsibilities would be increased. In some countries, the supply of the territory is a legal duty of local authorities (in this case, quantified RES objectives should be added as a new duty); in some others, LAs have no specific responsibility: in this case there is only a little chance to change the paradigm. This is why each LA, whatever the current framework, should be at least encouraged (or even obliged) to prepare such a local Action Plan, embracing both local resource and demand. Benchmarking activities could boost the process.

Energy agencies, when they exist, have surely a role to play, but as an instrument to support and organise local actions rather than to take the lead instead of local authorities. In this context, local and regional energy agencies could be trained to improve their capacities to prepare Local Energy Strategies / Action Plans / Planning. Such training activities (as well as exchange of experiences) could be supported and promoted by IEE II programme.

However, the main support that the Commission could offer is the preparation of the “Communication“ on the role of L&RA already mentioned. This initiative could be an excellent pretext for a large debate everywhere and at all levels, inaugurating a new way towards the new energy paradigm.

Would financing instruments be significant in promoting Heating and Cooling from RES? If so, what form could these take and what would be the source of the financing? What other forms of support could be envisaged? (optional)

Using fossil & fissile fuels cannot be really considered as compatible with market economy. Indeed no provision is planned to replace on the long run the capital we get from nature. In comparison, any user of RES has to pay for the collection of fuel (or solar), for replacement (wood) and its transformation into heat or cooling, what explains a higher initial investment. So, there is a legitimacy to get money from use of fossils fuels to subsidy energies that will replace them in the future, through various means, included subsidies. Indeed a financial contribution of the “community“ (from incomes mentioned above) to pay the difference between an acceptable market price and the actual price is justified, the individual choice being influenced by / reoriented towards a collective objective.

Considering the current uses of renewable energy sources, how could a new initiative on Heating and Cooling from renewable energy sources be better raised in coordination with the existing policies regarding biofuels or electricity generation from renewable energy sources? Would Heating and Cooling from renewable energy sources distort the market and/or jeopardize the targets for these other policies?

Would it affect non-energy use market for biomass? If so, how? How to overcome that possible difficulty? (optional)

The E-RES directive has been considered as a strong impulse for promoting RES. In nearly all countries, something has happened even far away from the EU “indicative” objectives. It is a proof that an EU initiative can change mindsets.

However, in certain countries where CHP is usually neglected, very bad initiatives have been taken in the field of RES. For example, in France:

The feed-in tariffs for electricity produced from wood being low, local authorities have been discouraged to use biomass in CHP plants connected to district heating.

In the meantime, the government launched calls for tender to buy electricity from large biomass plants, with a much higher price but with no CHP obligations. So 2/3 of energy (heating) will be lost as well as the potential of biomass for really cost-efficient usage!

If the EU directive on E-RES had been planned to consider simultaneously electricity and heating / cooling, such wrong projects would have been aborted. It is an example of the insufficient integration at EU scale of energy policy: electricity, considered as part of the internal market is a priority. Heating being considered as a local issue comes afterwards... and maybe too late. We hope that the future EU initiative will change this situation.

Considering the competition with non-energy use (in fact what is called “industry wood”), this argument has regularly been used, even where the wood energy market was smaller; The reason is these industries need a depressed market to be able to get raw materials at a very low price, or at no price or even at negative prices! Except some justified exception in certain regions, we should avoid to become the hostage of these lobbyists.

Taking into consideration that a large number of industries and incineration plants produce heat as a sub product, how could Heating and Cooling policies be linked with the recovering of this “residual heat”? What synergies could be exploited in promoting Heating and Cooling from renewable energies with a more efficient use of residual heat? Should incentives be developed, a market raised for heat exchanges or another policy be adopted? Who would be the coordinator of these heat exchanges? Should we link this initiative with district heating development? (optional)

District heating installations are the main – often the only – mean for recovering energy and use biomass at a large scale. This is why the issue of RES is much linked with district heating policies. The strong struggles of gas suppliers and individual gas-boilers companies to discourage new installations and retrofitting of DH, or to encourage tenants to disconnect with DH, especially in new member states and candidate countries, such as Romania, are not acceptable. Supporting DH and encouraging the retrofitting of DH should be a clear priority for the EU, especially in bilateral negotiations with member states and candidate countries. If the DH disappears, we cannot expect a significant – and increasing – part of RES. All examples of cities mainly supplied from RES show that DH is indispensable.

In some cases, CHP plants fed by gas can be an obstacle for RES (at least when gas prices are on the bottom of the cycle). If we consider that “free” competition (then a short run vision, making the calculations with the current prices and being not able to anticipate a new energy paradigm) is the only way to decide the energy(ies) we will use, we are nearly sure to fail in promoting RES at a large scale. On the contrary, if LAs are requested to prepare and implement Local Energy Strategies / Action Plans aiming to reach quantified targets, the door is open to influence the trends. Integration of a long run vision in the decision making process is needed.

We do not believe that a “heat exchange market” is a solution, the decision being more complicated and local than simply comparing prices. In the meantime, deciding for whatever reasons not to use heat recovery from an existing incineration plant, would cause increasing prices for waste management, and finally paid by inhabitants. Except LAs, who else has the legitimacy to decide what is acceptable or necessary?

Do you have any other considerations on the development of Heating and Cooling from renewable energies? (optional)

There is an imperious necessity to link this issue with some others: regional policy, agriculture, education, research, SMEs, etc. at all levels (from EU to local), the adapted response has to be found involving the `outside the energy` sphere.

In broader words, the dispersion of the EU initiatives during the last – and current – years is an obstacle for a coherent and understandable EU policy. Although, in principle, it is accepted that sustainable energy policy

has to be integrated, nearly nobody is able to have a full vision. Energie-Cités had proposed on the past a “framework directive” for sustainable energy, then specific initiatives / directives for thematic issue. Such a need remains.