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Energy supply and energy efficiency at local and regional level: promoting energy transition

Current Affairs Committee

Rapporteur: Svetlana ORLOVA, Russian Federation (R, EPP/CD ¹)

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Summary

The 21st century is set to see major changes in the energy field which will have a direct impact on local and regional authorities. The energy supply framework which prevails today represents a break in the link between energy and the local area: local and regional authorities are excluded from decision-making processes and consequently become heavily energy-dependent. The present situation requires a transition to a new energy paradigm, making use of renewable energies which will result in a lower and more efficient consumption than is the case today. In this new, emerging model, local and regional authorities will play a decisive role as energy producers, distributors and consumers, as well as urban planners and investors. They must therefore have the requisite competences and responsibilities relating to energy supply and use, be able to choose energy sources and supply methods, and control the impact of the transport infrastructure on their areas and communities. The report examines the requirements for this energy transition, and sets forth recommendations for local and regional authorities to seize the opportunities presented by the current situation and to strengthen their role in the transition process.

¹ L: Chamber of Local Authorities / R: Chamber of Regions
ILDG: Independent and Liberal Democrat Group of the Congress
EPP/CD: European People's Party – Christian Democrats of the Congress
SOC: Socialist Group of the Congress
NR: Members not belonging to a political group of the Congress



DRAFT RESOLUTION²

1. The 21st century is set to see major changes in the energy field which will have a direct impact on local and regional authorities:

- a. a physical limit on the availability of fossil and fissile fuels has become a serious possibility;
- b. the consequences of energy consumption in terms of climate change are threatening the balance of the biosphere;
- c. the strong growth taking place in the emerging countries is leading to a significant increase in energy consumption and greenhouse-gas emissions;
- d. the high level of energy prices could make energy inaccessible to a growing part of the population, which would no longer be able to meet its minimum needs for comfort and mobility, thus accelerating social exclusion.

2. The present picture of energy supply and energy efficiency is therefore as follows:

- a. a continuing upward trend of energy prices, especially those of oil, gas and electricity;
- b. "peak oil"³, according to the International Energy Agency, was reached in 2006;
- c. the nuclear accident at Fukushima in March 2011 has brought the nuclear safety issue to the fore and is prompting a number of countries to abandon the nuclear route;
- d. interest is increasing in improving energy efficiency as a key solution to energy problems;
- e. a wide range of renewable energy resources is now economically and technologically available;
- f. despite the climate emergency context, international negotiations are making only slow progress.

² Preliminary draft resolution approved by the Current Affairs Committee on 29 June 2011.

Committee members:

E. Yeritsyan (Chair), B. Toce (Vice-Chair), F. Mukhametshin (Vice-Chair), C. Abela Baldacchino (Vice-Chair), T. Ali, S. Aliyeva, E. Ampe, P.D. Andersen, A. Antosova, G. Arnardottir, T. Badan, S. Barnes (alternate: F. Butler), B. Belin, A. Beskow, A. Boff, N. Boltenko, E. Brogi, A. Bryggare, E. Campbell-Clark, Y. Celik, P. Chesneau, V. Chilikov, E. Chrysanthou, A. Cook, E. Costello, F. Dal, D. Davidovic, I. De La Serna Hernaiz, J. Demeter, N. Dudov, B.M. D'Angelo (alternate: M. Toscani), M. Fiasella, J. Fischerova, B. Fleck, D. Ghisletta, V. Groysman (alternate: T. Savchenko), L. Güven (alternate: G. Doganoglu), H. Himmelsbach, P. Hugon, P. Jansen, Y. Karayiannis, H. Klamm, V. Konstantinov, A. Koopmanschap, A. Kordfelder, L. Kovacs, A. Kurti, J. Landberg, P. Leuba, I. Linge (alternate: A. Svensson), J. Lobnig, M.S. Luca, F. Madsen, F. Maitia, P. Matvienko, I. Milatic, Y. Mildon, Y. Mishcheryakov, M. Nagel, C. Naudi Baixench, O. Olavsen, K. Ölcenoglu, C. Oliver Jaquero, C. Oppitz-Plörer, S. Orlova, A. Pellizzari, J. Petusik, N. Pilyus, C. Raimbert, F. Ramos, A. Ravins, V. Rossi, Y. Rzayeva, O. Sainsus (alternate: S. Bohatyrychuk-Kryvko), I. Schrick, H. Skard, J.-L. Testud, G. Tkemaladze, A. Toader, N. Toncev, S. Toscani, I. Tzaki, E. Van Vaerenberghe, L. Vecchi, E. Villaroya Saldana, C. Vosseschulte, J. Warmisham, J. Watson, L. Zukauskas.

NB: The names of members who took part in the vote are in italics.

Secretariat of the Committee: D. Marchenkov, J. Hunting and M. Grimmeissen

³ Peak oil is the point in time when the maximum rate of global [petroleum extraction](#) is reached, after which the rate of production enters terminal decline.

3. The energy supply framework prevailing today represents a break in the link between energy and the local area, with local and regional authorities being excluded from the major decisions taken and consequently becoming heavily energy-dependent. The Congress is convinced that the present situation requires a transition to a new energy paradigm in which “flow” (renewable) energies are used and consumption is lower and more efficient than today.

4. It has become imperative to lower the costs to energy consumers, especially for individual consumers, in order to reduce the excessive dependence on only a limited number of energy suppliers or energy supply methods. It has also become imperative to give consumers a possibility of choosing among a wide variety of alternative energy sources, and to encourage citizens’ initiatives and innovation in energy production.

5. In this new paradigm, local and regional authorities will play a decisive role as energy consumers, urban planners, investors, energy producers and distributors and set an example to the population and local stakeholders.

6. The Congress is also convinced that this new paradigm is already appearing, especially following initiatives by local and regional authorities. Suitable technologies and systems are already available and there is no shortage of practical examples. Nevertheless, the energy transition process must be accelerated (or started where it has not yet taken off) in order to make our societies less vulnerable and guide them towards a more judicious use of natural resources, with due respect for the balance of the biosphere.

7. The Congress affirms that such a transition requires, on the one hand, decentralised energy policies and, on the other hand, initiatives by towns and regions to change the existing situation. In this context, local and regional authorities must have adequate competences and responsibilities relating to energy supply and use. All action to manage energy resources better must involve local and regional stakeholders.

8. In addition, the Congress points out that under the European Charter of Local Self-Government (Article 4) local and regional authorities must be consulted on all energy-transport infrastructure decisions. The purpose of this is to enable them to exercise their choice of supply methods and sources and to control the impact of transport infrastructure on the areas concerned. Regions and countries which export network energies must not be able to impose their choices on those areas unilaterally.

9. The Congress notes the vital importance of a reliable energy supply and safe energy for the regions and local communities in Europe, which is determined by stable, reliable and smooth supply of energy resources and diversification of their routes.

10. The Congress underlines the importance of considering the interests of the territories, through which Trans-European energy infrastructure pass, the use of modern technologies and control systems by construction and operation of these facilities, ensuring the preservation of the environment and the rational use of natural resources. In addition, it is essential that local and regional authorities receive the appropriate budget allocations from the implementation of the main energy infrastructure projects.

11. Referring to its previous work in this field, the Congress also reaffirms the relevance of its Resolution 262 (2008) “Public local and regional action: for a new energy culture” and of its Resolution 248 (2008) “Climate change: building adaptive capacity of local and regional authorities”, both of which remain highly topical.

12. The Congress welcomes the action which is being undertaken by regional and municipal networks such as in particular the Foundation for the Economy and Sustainable Development of the Regions of Europe (FEDRE) and Energy Cities, and considers that they play an important role in promoting energy policies and energy efficiency at local and regional level.

13. In the light of the above, *the Congress invites the local and regional authorities of the Council of Europe* to:

a. take full stock of their responsibilities in dealing with the energy challenges with which we are already confronted. Mere awareness that something must be done is today no longer sufficient – action must be taken now as a matter of urgency;

b. debate the energy transition question in their deliberative assemblies so as to facilitate inclusion of this fundamental issue in all sectoral policies;

c. acquire the means to become fully aware of energy flows into their area, as well as the associated emissions of pollutants, including by sector (residential, tertiary, transport etc), and according to use (heating, specific electricity, etc);

d. seek systematically to achieve energy savings of municipal buildings and throughout the residential and tertiary sectors and encourage the public display of those buildings' energy performance (from A to G);

e. list the total of local resources that can be used for energy supply (biomass, biogas, geothermal heat, seas and lakes, solar power, wind, waste, heat recovery, etc);

f. elaborate/define pluriannual sustainable energy action plans covering the following aspects: energy consumption, area planning, investment, energy production and distribution, setting an example for the population and local stakeholders, including quantified objectives and the associated budgets;

g. irrespective of the European country concerned, join the Covenant of Mayors⁴ (as signatories for towns and as local co-ordinators for regions and provinces), which is nowadays the reference movement for local and regional authorities;

h. appoint, in their executive bodies, policy heads responsible for energy, climate and sustainable development issues, and create or strengthen the corresponding committees;

i. ensure the presence of suitably-skilled human resources within their administrations (pluridisciplinary energy management units) and in outside bodies (local energy and climate agencies);

j. involve citizens, economic stakeholders (SMEs, VSEs etc) and industrial stakeholders (associations, trade unions) in defining and implementing local energy policies, in order to share a common vision of the local area as one offering low energy consumption and high quality of life for all;

k. encourage citizens' initiatives as well as investments in innovation as far as energy production and supply are concerned, and ensure that citizens have an option of individual energy production, for example by installing solar panels or windmills on their property;

l. participate in networking at national and European level in order to share experiences and influence decisions by governments and supranational institutions; take into account, in this regard, the experience of the existing networks, such as for example the Transitional Town Movement Network⁵ in the United Kingdom, Italy, Ireland, and other countries around the world; and develop relations, partnership and exchange of best practices between local and regional authorities of the Council of Europe member states within their competence on the energy supply and energy efficiency issues;

⁴ The **Covenant of Mayors** is a European movement involving local and regional authorities committed to increasing [energy efficiency](#) and the use of [renewable energy](#) sources on their territories.

⁵ Transition Network, www.transitionnetwork.org

m. contribute to the activities in the framework of the International Year for Sustainable Energy for All (2012), which will feature the Earth Summit 20 years after the historic Rio Conference laid the bases of sustainable world governance.

14. *Furthermore, the Congress:*

a. invites local and regional networks such as in particular the Foundation for the Economy and Sustainable Development of the Regions of Europe (FEDRE) and Energy Cities to pursue their action aimed at promoting energy policies and energy efficiency as well as best practices at local and regional level in the spirit of the present resolution;

b. instructs its Current Affairs Committee to present, in 2015, a report assessing the situation with energy supply and energy efficiency at local and regional level;

c. instructs its Governance Committee to take account of energy policies and energy efficiency as an integral part of good local and regional governance.

EXPLANATORY MEMORANDUM⁶

I. Introduction

1. Because it is essential to human life, energy cannot be viewed solely as a product whose future can be shaped by market or inter-state relations. It must also be the business of citizens, local stakeholders and, of course, local and regional authorities.

2. The 21st century is set to see major changes in the energy field. A physical limit on the availability of fossil and nuclear energy resources has become a serious possibility. For example, the International Energy Agency has stated⁷ that peak oil was reached in 2006, which foreshadows a significant increase in tensions on oil-supply markets over the next few years and decades. At the same time, the nuclear accident at Fukushima in Japan in March 2011 has brought the nuclear safety issue to the fore and is prompting a number of countries to abandon this route.

3. As regards greenhouse-gas emissions, the consequences of our energy consumption in terms of climate change are threatening the balance of the biosphere; the forecasts of the Intergovernmental Panel on Climate Change (IPCC) have been confirmed and in the Cancun Agreement (COP 16) states have accepted the objective of a 2°C limit to the rise in the world's average temperature.

4. The increasing power of the emerging countries is ending a situation in which 25% of the population of industrialised countries consumed 75% of world energy. The pronounced growth of those countries, especially when added to the continuing high level of energy consumption in the so-called industrialised countries, would doubtless contribute significantly to increased energy consumption and greenhouse-gas emissions.

5. The high energy prices resulting from continuing the present trend could make energy inaccessible to a growing part of the population, which would no longer be able to meet its minimum comfort and mobility needs, thus accelerating social exclusion.

6. For all these reasons, it is impossible to conceive of the 21st century as just a continuation of the 20th during which the first signs of dysfunctioning became apparent. The choice before us now is whether we accept the challenge willingly, i.e. by anticipating the risks in order to avoid and limit them, or whether we find ourselves forced to meet them as a result of the crises that will certainly occur sooner rather than later.

7. The issue at stake goes far beyond the strictly energy question. It concerns the very future of our societies. In the present circumstances there are two key approaches to ensure energy efficiency: reducing demand and encouraging the use of renewable energies. In such a context, local and regional authorities must have adequate competences and responsibilities regarding energy supply

⁶ This Explanatory memorandum is based on the document prepared by the Council of Europe consultant [Gerard Magnin, which is reproduced in the appendix to this report.](#)

⁷ World Energy Outlook 2010.

and use, while all action to improve the management of energy resources must involve local and regional stakeholders.

8. This report comes at a time when growing interest is being shown in improving energy efficiency as a major solution to the problems with which we are faced. The current situation is also characterised by the economic and technological availability of a wide range of renewable energy resources and by a climate emergency context, when international negotiations are making very slow progress.

9. Furthermore, the year 2012, which will feature the Earth Summit 20 years after the historic Rio Conference laid the bases of sustainable world governance, has been declared by the UN to be the International Year for Sustainable Energy for All.

10. This report deals in particular with the following fields at local and regional level:

- energy efficiency in the buildings in the public and private residential and tertiary sectors, urban and regional transport, VSEs and SMEs, and the energy consumption needed for the production and operation of manufactured goods and the production of agricultural produce;
- energy efficiency in the production and distribution of local energy, e.g. in heat networks, co-generation installations, and the use of unused heat surpluses (e.g. from waste incineration or industrial processes);
- renewable-energy sources, particularly those produced locally or close to places of consumption (e.g. solar, wind, biogas, biomass, geothermal heat, and ocean or lake thermal energy potential).

11. The Congress has already discussed two aspects of these questions in the past:

- Energy: the Committee on Sustainable Development adopted a report in 2008 (CG/DEV (14) 20) entitled "Public local and regional action: for a new energy culture".
- Climate: Recommendation (215/2007) on "Climate change: approaches at local and regional level" and a report entitled "Climate change: building the adaptive capacity of local and regional authorities"(CG (14) 33REP) in 2008.

12. These documents are still topical and should be taken into consideration.

II. The transition to a new energy paradigm

1. Present context

13. The present context requires a transition to a new energy paradigm. A characteristic feature of the paradigm still prevailing today is the fact that industrial civilisation has broken the link between energy and local area: the first industrial revolution (coal) and particularly the second (oil followed by gas and interconnected electricity networks) led to an almost total separation between the places where energy is produced and those where it is consumed. Geographical areas, economic stakeholders and residents used to manage local-energy sources judiciously in order to make them last. Powerful energy companies have today muscled in to supply energy and ultimately to impose their own choices on consumers and often on decision-makers according to their own interests.

14. The result has been a priority being given to energy supply rather than to controlling demand, to stored energies (fossil and then fissile) rather than flow energies (renewable), and to centralised rather than decentralised technologies and systems. All parties have gradually abdicated their responsibilities regarding energy supply and the impact of consumption on the atmosphere. Both consumers and citizens and local and regional authorities have often been excluded from the major decisions taken.

15. This system, inherited from the 19th and 20th centuries, which has led to significant waste and destabilisation of the biospheric balance is today showing many signs of fatigue. It is not sustainable. The energy paradigm of the 21st century will have to be very different if humanity is to acquire the means of perpetuating itself in peace and social cohesion.

2. A new paradigm is necessary

16. The future energy paradigm must have the following characteristics:

- the quantity of energy necessary for satisfying our needs for comfort, mobility, food, production etc will be significantly lower than today's⁸ consumption;
- *flow* energies will take over from *stored* energies: we must aim to meet nearly all our energy requirements from renewable resources this century.

17. This new paradigm is already appearing, particularly as a result of initiatives by local and regional authorities, especially authorities in decentralised countries which devolve significant responsibilities to the local level and thus encourage their initiatives. Suitable technologies and systems are already available and there is no shortage of practical examples. The energy transition process must therefore be accelerated (or started where it has not yet taken off) in order to make our societies less vulnerable and guide them towards a more judicious use of natural resources, with due respect for the balance of the biosphere.

3. The role of local and regional authorities in the transition to an energy-saving Europe that emphasises renewable resources

18. The local level must play a decisive role in the new energy paradigm. It is at local level that people live, work, study and find their entertainment. This is where the buildings are located which will need to have upgraded heating systems and where new buildings are to be constructed; it is here where policy decisions are taken on mobility, traffic and transport systems which, depending on the priorities allocated to them, will be high- or low-energy consuming; where town-planning policies that largely determine an area's future consumption are decided on; and, finally, where renewable energy resources are situated, particularly those that can be exploited locally or close to areas of consumption (solar, wind, biogas, biomass, geothermal heat and lake and sea power etc.).

19. Energy stakeholders will no longer be mainly the large companies in the energy-supply sector but those that help to reduce buildings' energy consumption (architects, artisans, plumbers, installers and joiners together with new trades specialising in house insulation, energy-service companies, local banks etc); transport (those in charge of mobility and transport policies, transport companies, cyclist associations etc); those responsible for urban and regional organisation (town planners, spatial developers etc); those supplying biomass resources (farmers, foresters) or erecting solar installations; and, of course, all citizens and consumers who have their role to play at various levels. New forms of local governance will have to be devised to address these new challenges.

20. Local potential, whether for energy saving, local renewable energy or heat recovery, can be exploited mainly at local and regional level. This is where concrete action can be taken. This is why it is essential to have decentralised energy policies and initiatives by towns and regions to change the current situation.

21. Furthermore, under the European Charter of Local Self-Government (Article 4), local and regional authorities must be consulted on all decisions affecting energy-transport infrastructure, so that they can choose the supply methods and sources they want and have control over the impact of transport infrastructure on the areas concerned. Network-energy exporting countries and regions must not be able to impose their choices on areas unilaterally.

⁸ For example, a European directive indicates that, from 2020 onwards, new buildings must be designed for "nearly zero energy" consumption for heating. Buildings are already found in northern Europe where the apartments have no radiators.

22. Local and regional authorities often already play a part in supplying energy to their respective territories, for example by managing electricity, gas, and heat distribution networks. However, the question of area energy supply will not be limited to linking those areas to the major electric, gas or oil networks. Their role will have to be directed more specifically at taking action on energy demand, whether this concerns their own assets and equipment or consumption by public and private housing in their area, the energy performance and quality of public services such as heat networks or urban public transport, or again the exploitation of potential for renewable resources or the use of heat, for example heat produced by co-generation. Such a process should lead to increased energy autonomy by the areas in question, thus making them able to withstand the test of international uncertainties over which no-one has any real control.

4. Current energy policies and local and regional authorities

23. While in principle the local and regional nature of sustainable energy policies is being increasingly recognised by the higher decision-making levels, national legislative, tax and incentive systems are not generally designed to encourage action by the local and regional authorities, especially when this means giving them the autonomy needed to conduct sustainable proactive local energy policies.

24. In countries where decisions are taken at central level, numerous brakes are applied when there is any question of conferring greater energy responsibilities on local and regional authorities. This crushes initiative.

25. In contrast, in other countries because of the recognition of the importance of local and regional authorities, freedom in local government has shown that it can be a powerful stimulant to the quest for new and varied energy solutions tailored to what are always individual contexts.

26. Local and regional authorities require funding over and above the legal measures promoting local self-government. When efforts in pursuit of a common cause are shared between all administrative levels, it is only logical that state resources should be shared accordingly, including possible resources from the auctioning of CO₂ emission quotas, for example in the case of countries which are members of the Emission Trading Scheme (ETS) and, more broadly, the Kyoto mechanisms. Investment in reducing energy consumption should receive more attention and funds than investment in greater production; this is confirmed in nearly all cases by economic calculations.

27. The importance should be stressed of the *Covenant of Mayors*⁹ under which towns voluntarily undertake to exceed the EU's energy and climate objectives on their territories (see box below). Towns are carrying out a large number of actions, small and big, strategic or tactical, that demonstrate a willingness and desire to change the direction in which things are going.

The Covenant of Mayors: an opportunity open to all European towns and cities

28. In 2008, the European Union adopted its Climate and Energy Package which sets out the "20-20-20" targets: a reduction of 20% in CO₂ emissions, an increase of 20% in energy efficiency and a 20% increase in renewable energy in the European energy balance-sheet by 2020.

29. On this basis, over 2,500 towns have already voluntarily and unilaterally undertaken to exceed these objectives on their territories and have signed the *Covenant of Mayors*. This is an unprecedented example of multi-level action to achieve common objectives, in which regions and provinces have a prime role to play as territorial co-ordinators.

30. Towns undertake¹⁰ to submit within one year a Sustainable Energy Action Plan which also contains a baseline inventory of energy consumption and greenhouse-gas emissions and a description of the human and financial resources allocated to implementation of the Plan. Financial-engineering schemes are associated with this initiative. After three years the signatory towns must report on their initial results.

⁹ www.eumayors.eu

¹⁰ http://www.eumayors.eu/IMG/pdf/covenantofmayors_text_fr.pdf
http://www.eumayors.eu/IMG/pdf/covenantofmayors_text_en.pdf
http://www.eumayors.eu/IMG/pdf/covenantofmayors_text_ru.pdf

31. This initiative is fully supported by the European institutions and mechanisms are being put in place to help ensure achievement of the objectives at local level (technical financial assistance, promotion of efficient technologies, training, networking etc); among the European institutions, the Committee of the Regions totally supports this initiative¹¹ which it would like to extend to other fields such as water.¹² The Congress of the Council of Europe has been able to become involved with several related initiatives.

32. This initiative is open to all European countries¹³ and even beyond and offers a joint action framework to towns in all the countries represented in the Congress. The signatories include more than 100 towns and cities not belonging to the European Union. The Covenant of Mayors could become a political, institutional and practical instrument which would play a uniting and catalysing role for Europe as a whole.

33. The energy policies of European countries today vary according to their different situations regarding energy resources. The European Union, which is poor in conventional energy resources, is opting boldly for an energy-efficient low-carbon-emission society which will derive a significantly increasing proportion of its energy supplies from renewable energy (see box below). Countries with richer resources are generally more reluctant to participate in policies to control energy consumption. However, even the latter are not totally unresponsive to this movement and are beginning to acquire appropriate instruments (see the second box below).

The European Union and energy efficiency

34. **The EU strategy for 2020 has been defined on the basis of the following: Smart Growth – Sustainable Growth – Inclusive Growth.**¹⁴ This strategy consists of five priority objectives, one of which concerns energy and climate on the basis of the December 2008 **Climate and Energy Package.**¹⁵ This Package laid down the “20-20-20” targets (-20% reduction in CO₂ emissions, 20% more energy efficiency and 20% more renewable energy in the European energy balance sheet by 2020). It also laid down seven flagship initiatives, one entitled **A Resource-Efficient Europe**¹⁶ in which the subject of energy resources is a key element.

35. On these bases, a **Strategy for competitive, sustainable and secure energy** by 2020 has been proposed.¹⁷ The first of the five priorities under this strategy is “**limiting energy use in Europe**”. Following this an **Energy Efficiency Plan**¹⁸ was published in March 2011 which provides for a series of measures including a proposal for a **Directive on Energy Efficiency** which updates previous directives and will be published in June 2011.

36. In addition, other initiatives will support and supplement these plans: a **Roadmap for moving to a competitive low carbon economy**,¹⁹ which is designed to enable the EU to reduce greenhouse-gas emissions by 80-95% by 2050, an **Energy Roadmap 2050**²⁰ and a **Roadmap to a Single European Transport Area – Towards a competitive and resource-efficient transport system**,²¹ to be published shortly.

37. These initiatives are in addition to other measures already taken or in the process of implementation, e.g. the **Directive on Energy Performance of Buildings**²² which provides, amongst other things, that from 2020 onwards new buildings must be designed for “nearly zero energy” consumption for heating, and the **Directive on the Promotion of Renewable Energy Resources.**²³

38. Although local and regional authorities have long been ignored in European energy policy, a marked change has occurred. The fact that the EU’s climate/energy objectives are unlikely to be achieved without the active involvement of the local and regional levels which hold several trump cards is now better recognised. Local and regional authorities are now nearly always mentioned in official documents on **sustainable-energy policies**. Furthermore, the EU’s regional policy encourages management authorities to devote a greater share of cohesion funds to energy efficiency and to allow for this aspect in all investments.²⁴

Source: *Energy Cities*

¹¹ http://www.eu-ems.com/event_images/Downloads/Bresso.pdf

¹² Already about 100 towns and cities in European countries not belonging to the EU have pledged support.

¹³ An office of the Covenant of Mayors will be set up in 2011 for countries concerned by the EU’s neighbourhood policy (Ukraine, Moldavia, Southern Caucasus and Central Asian countries).

¹⁴ http://ec.europa.eu/europe2020/index_en.htm

¹⁵ http://ec.europa.eu/clima/policies/package/index_en.htm

¹⁶ COM(2011) 21, see: <http://ec.europa.eu/resource-efficient-europe>

¹⁷ COM(2010) 639 final – http://ec.europa.eu/energy/strategies/2010/2020_en.htm

¹⁸ Energy Efficiency Plan – COM (2011) 109 – http://ec.europa.eu/energy/efficiency/action_plan/action_plan_en.htm

¹⁹ http://ec.europa.eu/clima/documentation/roadmap/docs/com_2011_112_en.pdf

²⁰ http://ec.europa.eu/energy/strategies/2011/roadmap_2050_en.htm

²¹ http://ec.europa.eu/transport/strategies/2011_white_paper_en.htm

²² Updated in 2010 – http://ec.europa.eu/energy/efficiency/buildings/buildings_en.htm

²³ Updated in 2009 – <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0016:0062:en:PDF>

²⁴ http://ec.europa.eu/regional_policy/sources/docoffic/official/communic/sustainable/comm2011_17_en.pdf

Energy Efficiency Law in the Russian Federation

39. In 2009, in the Russian Federal Law "On energy saving and increased energy efficiency" was adopted, having been prepared on the basis of sub-statutory instruments, and its full-scale implementation began in 2011.

40. A State programme for "Energy saving and increased energy efficiency up to the year 2020" is now up and running. The constituent entities of the Russian Federation have adopted programmes pursuing the same purpose. To date, the following issues have been dealt with at local and regional level:

- the possibility of introducing bans or restrictions on the production and sale of goods with poor energy efficiency;
- a ban on the manufacture, import and sale incandescent light bulbs rated at 100 watts or more (requirements have been introduced for lighting equipment and electric lamps, the relevant regulations have been adopted and a State programme governing the use of such bulbs has been devised);
- it has been made compulsory for manufacturers and importers to label products with their energy efficiency rating;
- calculations concerning energy resources are carried out using calculating tools with which all legal entities and state institutions are equipped;
- programmes for energy saving and increased energy efficiency are being devised in all regions and municipalities, state corporations and state-financed organisations;
- energy service contracts are making it possible to achieve savings in energy resources without having to invest proprietary funds, thanks to financing by energy service companies;
- long-term methods of tariff regulation are applied, and there are provisions for various forms of state support: tax concessions, repayment of interest on loans, granting of subsidies for carrying out improved regional and municipal programmes;
- energy efficiency is dovetailed with technical regulation.

41. Within the framework of the "Energy-efficient social sector" project, activities are being carried out at pilot sites in 9 regions, under the "Energy-efficient towns" project, pilot schemes are being run in four towns or cities (Tyumen, Apatity, Vorkuta and Kazan). Energy use inspections have been carried out, and the introduction of energy-saving measures on the basis of energy service contracts has now begun.

42. For the start-up of standard projects in the sphere of housing and public utilities, as well as large-scale projects aimed at improving energy efficiency in the electric power sector and industry, there is a special plan to provide state guarantees in the federal budget for loans obtained in 2011 to the tune of 10 billion rubles and a further 20 billion rubles each following year.

Source: speech of Mrs Orlova / 20th Session of the Congress / 23 March 2011.

5. Energy supply at local and regional levels

43. The issues of reliable energy supply and safe energy are assuming critical importance to the regions and local communities in Europe which is determined by the stable, reliable and smooth supply of energy resources and diversification of their routes.

44. Finding mutually acceptable approaches to solving the problems of ensuring reliable and smooth energy supply to Europe, diversification of their routes is a topical task. This being said, the criteria of economic efficiency, minimization of consumers' expenditures, including the inhabitants of cities and regions in Europe, should be taken into account in the first place when choosing the various supply projects.

III. Synergies between sustainable energy, territorial cohesion and quality of life

45. Far from being a source of constraint, energy transition can bring unparalleled opportunities that will benefit citizens' quality of life, local economic development and the attractiveness of areas. Below are some examples:

- the thermal insulation of buildings and improvement of their facilities results in a reduction in residents' energy consumption, protecting them against possible energy shortages and giving them a right to energy through low consumption leading to a proper level of comfort. This is a sustainable solution with a brighter future than a continuation of tariff subsidies where these still exist;

- optimising buildings' energy consumption results in the creation of new occupations and activities such as energy-service companies and enlisting the banking system's support with investment financing, thus stimulating the supply of local services;
- making greater use of renewable local resources results in a boost to the local economy by "keeping the money at home"; it optimises local intelligence, provides income to farmers and foresters, equipment installers and all businesses that may contribute their know-how;
- planning the areas concerned to avoid urban sprawl and dispersion brings residential areas closer to offices, public and private services closer to people's everyday environment and makes life easier for people in general, giving them greater access to public transport and cutting the length of the journeys they have to make on a daily basis;
- encouraging "soft" forms of transport (walking, bicycles) leads to reduced consumption for journeys and to physical activities that have a positive impact on health;
- consuming less energy results in lower energy production and therefore in limits on local polluting emissions that affect health, such as those with a climate impact;
- the use of new technologies and the devising of new methods of governance are powerful stimulants to innovation, research and employment.

46. All this leads to greater territorial cohesion, i.e. to greater harmony and an improved balance between the various areas based on residents' expectations and their long-term quality of life. Experience shows that the most attractive European cities, for example those in Scandinavia, are also those that use fewer resources and make maximum use of locally available resources. A network of cities such as *Energy Cities*²⁵ has developed the concept of *low-energy cities with a high quality of life for all* catering for the commitment to take into account a wide range of dimensions in dealing with energy.

47. In addition, such approaches should offer greater opportunities to women, who are generally marginalised in conventional energy policies but who are more sensitive than men to quality-of-life questions. They can play an important role in the transition to an energy system which ties in more closely with actual situations.

48. These approaches also require a forward-looking vision in order to avoid short-term errors, particularly in the period when the old and new models co-exist. For example, use of gas is preferable to coal from the standpoint of greenhouse gas emissions and pollution, but if the breakthrough of gas was to be achieved at the cost of dismantling the heating networks in favour of myriad individual boilers, we should deny ourselves all possibility of developing large-scale use of the biomass or of energy recovery.

49. We must avoid committing strategic errors, as has been or is still sometimes the case: French towns and cities in the 1950s, for example, demolished their tram network on the ground that they represented an obstacle to cars but today they are being rebuilt; a significant number of East European towns and cities are destroying their heating networks although this system is the most efficient in optimising energy consumption and using large-scale renewable and recovery energies, as shown by the example of Sweden; poor energy efficient housing is still being built without allowing for flexible energy supply throughout their lifetime, although knowledge and techniques are available today that enable very low consumption.

50. Such behaviour means that one has to pay twice: once to do harm and the other to put that harm right, at a time when local and regional authorities are experiencing difficulty in finding sufficient resources for their policies. Looking forward, for oneself and one's local area, to 2030 or 2040 (a generation) would enable today's errors to be avoided and restore trust in political action which could offer the prospect of movement towards a brighter future, rather than accepting things as they are and limiting the harm.²⁶

²⁵ www.energy-cities.eu

²⁶ This is the idea behind the IMAGINE initiative – *the energy future of your city*, launched in 2005 by Energy Cities <http://www.energy-cities.eu/IMAGINE>

IV. Scope of local and regional authorities: acting in an integrated fashion

51. Every local and/or regional authority is simultaneously:

- an energy consumer;
- responsible for urban planning and investment;
- an energy producer and distributor;
- and plays an incentive role for the population and local stakeholders.

52. Local and regional authorities consume energy for the buildings they own and manage. They should set an example in their energy management, have energy-efficiency teams and inform the public about their energy performance. Authorities which have gone down this route have often reduced their consumption by 50% or more. The use of energy-service companies can in some cases produce excellent results (e.g. Dobrich, Bulgaria).

53. Decisions by local and regional authorities on area planning, transport organisation, building permits or economic activities and research largely determine the future energy consumption of the residents and the various economic operators. A growing number of local and regional authorities are paying increased attention to the energy impact of their decisions and take account of the links between energy and land-use plans as well as of questions relating to the organisation of mobility, movement and public transport.

54. Local and regional authorities have a responsibility for improving the efficiency of energy production and distribution systems, encouraging the efficient use of energy and making optimum use of local resources such as renewable energies (including biomass, geothermal heat, biogas, solar power, hydro-electricity and wind power) and energy derived from urban waste or the recycling of heat from industrial processes so that they can achieve the above energy objectives. Växjö in Sweden decided in 1996 to use "zero fossil fuel" in 2010 and is close to achieving it, as is the small Austrian town of Güssing.

55. Local and regional authorities have a prime responsibility to make energy a subject which is everybody's business and not just that of energy specialists. The challenge is to ensure that the actions of the different players in the field are all directed towards the objectives of energy efficiency, renewable energies and the limitation of greenhouse-gas emissions.

56. A policy must be designed that incorporates these different components in a synergistic and co-ordinated way. Participation by the population in climate/energy actions is currently being greatly developed in certain countries. Numerous regions have encouraged local actions by various means (depending on their capabilities), including financial incentives.

V. Green technologies closely integrated in local/regional policies

57. While a large number of technologies are already available, often without being used to the full, the scope for innovation remains enormous, particularly for allowing energy switching with the required goals to be effected in the multiple fields of energy efficiency, renewable and decentralised energy sources and sustainable modes of transport, not forgetting information and communication. Local and regional authorities have a threefold role to perform here:

- As an irreplaceable *in situ* proving ground for green technologies, allowing them to be evaluated for their suitability, tested against the territorial complexity, and adapted to the actual conditions of use.
- As a market for enterprises that offer effective technologies, helping by their act of purchase to guide and vitalise the market in a meaningful way.

- As a vector of economic development for the areas where such enterprises are sited, while at the same time providing an opportunity for training and research: the growth rates of green technologies are appreciably higher than conventional technologies, and there is every reason to believe that the trend will continue and possibly gather speed. There are numerous examples of disused factory sites being redeveloped as *high tech* zones.

58. Care should nevertheless be taken:

- not to restrict innovation to its technological dimension: governance, involvement of the local stakeholders, cross-cutting management of policies, etc. are huge fields of innovation that enlist the intelligence of men and women generally;
- to make certain of a proper match between needs and technologies available on the market; unduly strong commercial constraints sometimes prompt local authorities to equip themselves with unsuitable technologies which they do not need.

59. A “green” technology does not necessarily possess intrinsic virtues: the integration of a technology in a given economic, social, technical, environmental or other setting is what will make a success or failure of it.

60. The earlier local authorities embark on these courses, the more chances they will have to prepare a harmonious future. They must endow themselves with capabilities of their own to increase the chances of success.

VI. Strengthening human capacities at local and regional level

61. Today, the lack of highly qualified workers in the field of sustainable energy remains a main barrier to accelerating an energy transition on a large scale. Increasingly dynamic and complex developments in the field of legislation, technology, ICT / Internet, finance and other areas require strong professional skills to anticipate, prepare and follow up the changes and seek innovative solutions.

62. To achieve the objectives of a new energy paradigm, the local and regional level needs:

- In-house skilled staff, for instance elected representatives, energy managers and experts, responsible for decision-making on policy priorities and budget, definition of a long-term vision and coordination with local agencies and private partners;
- Close-to-house skilled staff, for instance local and regional energy, climate & development agencies and/or publicly owned local companies who are responsible for professional assistance to policy makers and energy managers; and
- External experts in construction companies, banks & financial institutions, public authorities, communication agencies, associations and NGOs facilitating networking, etc., who are responsible for implementing actions comprised in the sustainable energy action plans and investment plans.

VII. Improving dialogue between the various levels of governance and networking

63. The transition to an energy-saving Europe can obviously not be done by one level alone. While states or international bodies can and should provide suitable frameworks in order to ensure a sustainable future compatible with humanity’s survival on the planet, their decisions will not be sufficient on their own when the results depend on millions of players throughout the world.

64. Conversely, local or regional actions in isolation, although absolutely essential for devising, field testing and then disseminating, will not be sufficient to solve the problem if sustainable local energy policies are not encouraged by governments.

65. The solutions will therefore not lie in a sort of “division of labour” between levels but in active two-way collaboration between those levels. What is needed is for all levels to work together in achieving common objectives, as advocated by the Covenant of Mayors.

66. To do so, local and regional authorities must be able to organise themselves into networks. In this way they can exchange experience, take advantage of practices already tested elsewhere, both successes and failures, and collectively express their views and put forward their proposals to national and international institutions. It is essential to ensure greater recognition for the role of local and regional authorities, to have legislative frameworks and incentives to encourage them in the fields of town planning, construction, rehabilitation of buildings, heating infrastructure and transport, to have funding, by means of appropriate mechanisms, tax instruments, etc and to foster autonomy in decision-making enabling them to take initiatives and run experimental schemes. This will not happen by itself. Constructive co-operation between authorities is essential.

67. This can be done both through their national or regional generalist associations and at European level, with existing networks and associations such as Eurocities or the Council of European Municipalities and Regions. There are also specialised networks that have acquired considerable experience over the past 20 years and more. These include Energy Cities²⁷(energy), Climate Alliance²⁸(climate) and ICLEI²⁹ (Local Governments for Sustainability) for towns and cities, and FEDARENE³⁰ (European Federation of Regional Energy and Environmental Agencies) for regions.

68. The existence of national networks of local authorities specialising in energy matters has delivered significant results. Mention may be made of the Energy Efficient Cities of Ukraine (EECU)³¹ Association and of the Polish network PNEC.³²

VIII. Conclusions

69. A change of direction in energy policies is needed urgently if there is to be some chance (a) of attaining the objectives of international climate conventions (COP 16 and limiting to 2°C the rise in the average world temperature in the course of this century), i.e. of preserving life on the planet in the long term, and (b) of making massive use of renewable energy to address the physical and financial constraints of fossil and fissile resources, which requires the efficient and economical use of energy in all fields.

70. To achieve this, local and regional authorities are invited to take a number of measures in accordance with the proposals contained in the preliminary draft resolution.

²⁷ www.energy-cities.eu

²⁸ www.climatealliance.org

²⁹ www.iclei.org

³⁰ www.fedarene.org

³¹ <http://enefcities.org.ua>

³² <http://www.pnec.org.pl>