EUROPEAN UNION

Committee of the Regions

**ENVE-VI/012**

**119th plenary session, 10-11-12 October 2016**

# OPINION

# An EU Strategy for Heating and Cooling

THE EUROPEAN COMMITTEE OF THE REGIONS

- Suggests promoting the use of innovative financial instruments to finance the development of the heating and cooling sectors, encouraging investment in clean technologies and facilitating the involvement of the private sector.
- Stresses the importance of the cooperation with the European Investment Bank (EIB) and the need for local and regional authorities to be supported in finding additional funding sources and in implementing bigger energy efficiency projects.
- Considers district heating and cooling systems an excellent way of connecting the various sources of energy with energy producers (industry) and consumers. District heating can be one of the cleanest ways of supplying thermal energy, and may play a key role in reducing $CO_2$ emissions – as well as helping to ensure energy independence and energy security.
- Urges a) the Commission to develop a concrete action plan detailing recommended measures to promote cogeneration and b) national authorities to consult the local and regional level on decisions concerning the development of cogeneration.
- Believes that the use of renewables in the heating and cooling sector could be one of the ways to ensure efficient development of heating and cooling sectors. Stresses that more attention should be paid to encouraging the supply of buildings with heat and electricity produced from renewable energy sources.


— Rue Belliard/Belliardstraat 101 — 1040 Bruxelles/Brussel — BELGIQUE/BELGIË —
Tel. +32 22822211 — Fax +32 22822325 — Internet: http://www.cor.europa.eu

Rapporteur

**Daiva Matonienė (LT/ECR)**, Member of Šiauliai City Municipal Council

Reference document

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions An EU Strategy on Heating and Cooling
COM(2016) 51 final

**Opinion of the European Committee of the Regions -**
**An EU Strategy on heating and cooling**

## I. Policy recommendations

THE EUROPEAN COMMITTEE OF THE REGIONS

*General comments*

1. Welcomes the European Commission's proposal that heating and cooling be considered as part of the common energy system, and notes that this is the first time that the heating sector has been highlighted as an important area within the energy sector that is well placed to contribute to increasing energy independence, ensuring energy security, achieving climate change objectives and reducing consumer spending;

2. believes that there can be no one-size-fits-all solution to ensure a sustainable heating and cooling sector, and stresses that a broad range of solutions is needed to deliver effective results, i.e. different technologies and different solutions both for individual cases and the entire sector;

3. notes, however, that the strategy is very general, lacks clarity and does not specify in sufficiently concrete terms how and in which direction the heating and cooling sector needs to be developed, what practical measures need to be taken to achieve the goals set, what impact these measures will have on local and regional governments, businesses and consumers (households), or what financial support and incentive rules should apply in view of the objectives regarding sustainable energy supply;

4. stresses that the EU is still highly dependent on energy imports. Heating and cooling currently account for 50% of the EU's annual energy consumption. This represents 59% of total gas consumption and 13% of total oil consumption in Europe[1]. These figures represent a high potential for energy savings. In order to realise this potential, it is necessary to take measures to restructure the heating and cooling sector and to guarantee efficient heating and cooling;

5. supports the European Commission's proposal that the heating and cooling sector could be incorporated into Member States' national energy and climate action plans, which are part of the Energy Union governance;

6. stresses that EU legislation – such as the Energy Efficiency Directive, the Energy Performance of Buildings Directive and the Renewable Energy Directive – which provide for specific measures in the field of energy production or consumption, are important for the development of the heating and cooling sector; underlines, therefore that future revisions of this legislation should take account of the central role of local and regional authorities in this sector, and in particular of the recommendations contained in this opinion;

1 https://ec.europa.eu/energy/sites/ener/files/documents/1_EN_ACT_part1_v14.pdf

7. notes that the worldwide trend of diminishing non-renewable energy resources, global climate change and increased emphasis on environmental quality and human health increasingly define the guidelines for modern construction concepts and their main focus: energy savings and efficient use, and impact on the environment and human health;

8. believes that the strategy will allow Member States to objectively evaluate their political and administrative decisions taken thus far in the district heating sector, as well as encouraging the development of the sector through the modernisation of heating systems, renovation of buildings, switching from natural gas to fuel from renewable energy sources, or to other fuels generated using clean energy, and enabling the connection of new users; this would make this service even less costly, reduce consumer spending and ensure healthier air in cities;

9. calls on the European Commission to review EU policies in order to develop a sustainable and efficient heating and cooling sector. One example which illustrates a lack of coherence between different elements of EU legislation is delegated regulation (EU) (No 244/2012 supplementing the EPBD. The delegated regulation allows renewable thermal and electric energy to be subtracted from the energy performance of the building if produced on-site, but not if supplied through centralised energy production. This inconsistency risks undermining systems for district heating, district cooling and CHP and is counterproductive for the aim of promoting the use of renewables, waste-to-heat and reduction of $CO_2$; is of the view that the primary focus of the energy performance of buildings should be on the energy use/demand of the building;

10. calls on the European Commission to advise Member States, taking into account their own potential, to develop a sustainable heating and cooling sector by deploying efficient technologies, promoting innovation and removing legal and administrative barriers;

11. regrets the fact that the role of local and regional authorities has been poorly defined by this strategy and stresses that local and regional authorities are the main institutions responsible for the heating and cooling sector. Local authorities are not only involved in the development and management of infrastructure, but also are among the largest energy users;

12. highlights the fact that local and regional authorities as far as possible endeavour to contribute to the achievement of sustainable energy objectives. Many towns and cities across the EU have already for many years had climate and sustainable energy action plans, which incorporate low-carbon heat and power production, deployment of renewable energy sources and measures aimed at energy efficiency improvement;

13. stresses that, as the EU's assembly of local and regional representatives, the Committee of the Regions attaches great importance to energy issues in its work and recommendations have been formulated in several opinions in the context of the Energy Union proposals[2] regarding the development of the energy sector, specific references to the important role of local and regional authorities in implementing sustainable energy policy goals, and suggestions for more active cooperation between the central authorities in Member States and their local authorities in terms of the decision-making process and representation of consumer interests;

14. recalls that the Committee of the Regions has already on several occasions pointed to the major role to be played by local and regional authorities in the development of cogeneration. This technology for the combined production of heat and electricity makes it possible to extract nearly 90% of the primary energy content of fuel. The EU should create the conditions needed to facilitate support for these highly efficient facilities so that they can cover their operating costs[3];

15. is of the opinion that it is essential for energy costs to remain affordable for our poorest citizens, who often spend a high proportion of their income on heating, cooling, lighting and appliances, and for energy efficiency programmes to target above all those most in need[4];

*District heating and cooling systems, individual heat energy supply*

16. considers district heating and cooling systems to be an excellent way of connecting the various sources of energy with energy producers and consumers. District heating can be one of the cleanest ways of supplying thermal energy, and may play a key role in reducing $CO_2$ emissions – as well as helping to ensure energy independence and energy security. Therefore, wherever conditions are favourable and the overall environmental benefits of such systems can be demonstrated, their development should be prioritised;

17. points out that in places with a high population density, district heating and cooling systems can be an excellent way of supplying heating and cooling, that, in such a case, all measures should be geared towards efficient energy production and that consumers should have more opportunities to use heat and electricity generated from carbon neutral energy sources. It should be noted that energy structures in the EU Member States are different and that a one-size-fits-all solution for all countries does not exist. It is important that incentives for new forms of energy

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2 Opinion of the Committee of the Regions on the Energy Union package
Opinion of the Committee of the Regions – Affordable Energy for All, OC 2014/C 174/04 Letter from the Greek Presidency of the Council of 4 November 2013
Opinion of the Committee of the Regions on Renewable energy: a major player in the European energy market OJ 2013/C 62/11
Opinion of the Committee of the Regions on Energy efficiency OJ 2012/C 54/09
Opinion of the Committee of the Regions on The EU Energy Action Plan for 2011-2020 (outlook opinion) OJ 2011/C 42/02
Opinion of the Committee of the Regions on the energy performance of buildings and the second strategic energy review OJ 2009/C 200/09
Opinion of the Committee of the Regions on Promotion of renewable energy OJ 2008/C 325/03

3 Opinion of the Committee of the Regions on Renewable energy: a major player in the European energy market OJ 2013/C 62/11

4 Opinion of the Committee of the Regions on The EU Energy Action Plan for 2011-2020 (outlook opinion) OJ 2011/C 42/02

production are designed in such a way that they do not undermine well-functioning systems at regional or local level;

18. believes that district heating networks have real potential for the efficient supply of energy to households and calls for the national and EU levels of government to provide support regarding potential needs for the expansion and upgrading of the existing networks. This also applies to local (island) biogas transmission grids which have been adapted to supply fuel locally to individual private consumers;

19. also notes that there are many parts of the EU territory where individual heating is the most efficient or even the only economically or technically feasible option due to population distribution; stresses that in these areas , more attention should be paid to encouraging the supply of buildings with heat and electricity produced from renewable energy sources, and promoting the replacement of old boilers with new, more efficient, less polluting ones also in order to address the issue of air quality given that in some European countries up to three quarters of air pollution from particulate matter comes from the use of solid fuels for household heating;

20. notes that the efficient development of heating and cooling systems involves connecting energy sources with industry and consumers. For example, the integration of heating, cooling and electricity networks could reduce the overall costs of energy systems and benefit consumers. To this end new and innovative technical solutions should be developed;

*Increasing energy efficiency in buildings*

21. stresses that energy efficiency is arguably most associated with buildings, as they represent huge potential for energy savings. In the European Union, 45% of heating and cooling energy is used in the housing sector[5]. Improving energy efficiency in this area should therefore continue to be a priority;

22. underlines that energy efficiency in buildings results from the combined application of various measures and represents the ability to get maximum benefit from each unit of energy: rational energy use, implementation of energy saving technologies and use of renewable energy resources, as well as encouraging energy saving behaviour by consumers. It should be pointed out that the selection of construction materials and technologies should be guided by a holistic approach and the application of sustainable construction priorities;

23. points out that energy savings throughout the lifecycle of a building depend to a large extent on the decisions taken when designing a new building or drawing up a renovation plan for an existing building. Therefore the Committee suggests focusing on sustainable management of the process from an early stage, using innovative instruments such as Building Information Modelling (BIM);

5 https://ec.europa.eu/energy/sites/ener/files/documents/1_EN_ACT_part1_v14.pdf

24. suggests reviewing existing renovation models, analysing their strengths and weaknesses and evaluating Member States' experiences in developing financing models that are attractive to consumers. It is also necessary to remove legal and administrative barriers to renovation. Around 70% of EU citizens live in private residential buildings. Owners often fail to carry out cost-effective renovations because they do not have sufficient knowledge about their benefits, are not given impartial advice regarding the technical options and have to deal with different interests (e.g. in multi-apartment buildings) and financial constraints. Therefore Member State authorities and local and regional authorities need to focus on working with the public in order to raise awareness about the application of energy efficiency improvement measures and to promote energy savings;

25. calls on local and regional authorities to look for ways to involve the private sector and energy service companies in the implementation of energy efficiency improvement measures by creating favourable conditions and removing administrative and legal barriers;

26. proposes a greater uptake in buildings of advanced technologies which, without compromising consumer comfort, help reduce energy consumption for indoor space heating, cooling, ventilation, lighting, hot water and other needs. For example, there are heat return technologies that efficiently extract heat from the exhaust air of a building and transfer this heat to the supply air – this can save a substantial proportion of the energy used for indoor space heating;

27. notes that one of the Commission's approaches to improve buildings' energy performance is to rely heavily on smart systems offering measuring, control and automation tools, and to give consumers more possibilities to be involved in demand-side management. In principle, these measures are welcome. However, there are some concerns with regard to their economic and privacy impact which should be further investigated and due to which smart metering should remain voluntary;

28. stresses the importance of promoting passive houses that have very low energy consumption, and also supports and encourages the greater practical uptake of the concept of active houses that use alternative sources of energy;

29. stresses that it is very important for the construction sector to take a responsible approach; suggests setting more stringent recommended standards for appliances and new buildings and imposing stricter recommended design and construction criteria that encourage architects, planners and designers to develop houses that meet the requirements for smart buildings;

30. points out that in order to achieve the EU's heating and cooling strategy objectives it is important to pursue an integrated approach and encourage district renovation: i.e., as well as renovating buildings, it makes sense to carry out integrated environmental regeneration of the whole district, upgrade infrastructure, set up green zones, bicycle-friendly infrastructure etc.;

*Industry, cogeneration and renewables*

31. points out that there is significant potential for energy savings in industry; based on the idea of industrial symbiosis which is an important element of the notion of moving towards a circular

economy; notes that in many places excess heating and cooling flows are generated that are simply discharged into the environment and agrees that using waste heat and cold in district heating and cooling networks would reduce primary energy consumption and benefit both the economy and the environment. Local and regional authorities have an important role to play in this regard, as they are responsible for planning heating systems;

32. notes that industry should be encouraged to put more emphasis on more efficient use of existing technologies in order to reduce energy costs. Industry accounted for a quarter of the total final energy consumption in the EU in 2012. 73% of this is used for heating and cooling[6];

33. calls on the European Commission to focus more on innovation in industry and to support the use of renewable energy sources and the development of new low-carbon technologies, including carbon capture and geological storage (CCS), which can efficiently contribute to climate change mitigation and believes that a reformed ETS scheme is a crucially important tool in this regard;

34. agrees that cogeneration of heat and power (CHP) is not currently being used to its full potential. Therefore urges the Commission to develop a concrete action plan detailing recommended measures to promote cogeneration;

35. urges national authorities to consult the local and regional level on decisions concerning the development of cogeneration. Furthermore, administrative and regulatory barriers hampering the development of cogeneration should be lifted after considering local conditions and opportunities as well as the economic benefits of expanding cogeneration which include improving the competitiveness of the industry by making use of its waste heat;

36. believes that the use of renewables in the heating and cooling sector could be one of the ways to ensure efficient development of heating and cooling sectors. District heating systems could make use of various renewable and local resources, including waste energy, municipal waste, biofuels, solar and geothermal energy, etc. Therefore, the development of systems should be encouraged by enabling the integration of renewable energy sources;

*The need and possibilities for financing the heating and cooling sector*

37. stresses that improving the efficiency of the heating and cooling sector requires significant financial resources, and consequently that it is of the utmost importance to develop a common approach and to seek a better match among the various financing sources;

38. suggests a review of the existing financial support schemes at different levels which may be used to support the development of district heating and cooling systems, energy efficiency and the use of renewable energy; secondly, calls for efforts to promote the creation of attractive funding schemes in order to be able to implement more effective measures for the heating and cooling sector;

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6 https://ec.europa.eu/energy/sites/ener/files/documents/1_EN_ACT_part1_v14.pdf

39. suggests promoting the use of innovative financial instruments to finance the development of the heating and cooling sectors, encouraging investment in clean technologies and facilitating the involvement of the private sector. It is important to strive for synergy between new funding methods and opportunities and to apply financial engineering measures, such as low-interest loans, guarantees, interest subsidies, capital investments, securitisation, etc.;

40. stresses that the implementation of the EU Strategy on Heating and Cooling and the funding of bigger projects would benefit from the option of combining the European Structural and Investment Funds (ESIF) with EFSI financial instruments. Therefore calls for the combination of measures to be applied as widely as possible in the EU Member States and for the process to be sped up and simplified;

41. points out the need to promote greater use of the ESCO model for energy projects and remove legal and administrative barriers preventing its use in heating and cooling. Also notes the importance of continuing structural reforms in the EU Member States in order to remove the barriers to investment in the heating and cooling sector and eliminate red tape;

42. stresses the importance of the cooperation with the European Investment Bank (EIB) and the need for local and regional authorities to be supported in finding additional funding sources and in implementing bigger energy efficiency projects. For example, with the EIB's assistance Lithuania has created an innovative JESSICA fund, attracted additional financing sources and achieved a multiplier effect;

43. welcomes the support by the European Fund for Strategic Investments (EFSI), with a particular emphasis on providing first-loss liability, investing in larger-scale, higher-risk energy efficiency projects. Also notes that until now the EFSI has been particularly useful to small and medium-sized enterprises (SMEs). Therefore, in order to encourage the greater involvement of the EFSI in those Member States where its activities have been limited so far, stresses the need to step up awareness-raising activities at local level;

44. welcomes the European Investment Project Portal (EIPP), a web-based platform connecting promoters and investors of European projects. suggests supplementing the platform with descriptions of financial instruments by bringing together examples of good practice in developing funding programmes for energy projects in the EU Member States;

45. considers that it would be useful for the EU to prepare guidelines on the efficient management and funding of energy sector and to provide examples of possible models of efficient management that could be applied by local and regional authorities in the heating and cooling sector;

*The role of the local and regional authorities*

46. notes the important role played by local and regional authorities in the heating and cooling sector:

– local and regional authorities have direct responsibility for the sector: they arrange service provision, are responsible for system planning, and deal with funding issues related to the development and modernisation of the systems;

– local and regional authorities are the chain linking all players in the sector – consumers, suppliers, producers, investors and system operators – contributing *inter alia* to improving the quality of the environment;

– key decisions are taken and main initiatives emerge on the ground. The local level is the place where theory is put into practice and legal requirements are transformed into visible and tangible results;

– providing information to and consulting consumers;

47. notes that being responsible for municipal planning, local and regional authorities can contribute to promoting the use of renewable energy and improving energy efficiency at local and regional level, for instance by establishing ambitious targets and action plans, simplifying administrative procedures and rules or providing financial support;

48. finds it regrettable that the strategy does not mention local and regional authorities as key stakeholders in heating and cooling, and urges the European Commission to treat local and regional authorities as partners on an equal footing with central government with regard to the implementation of further measures in this area;

49. considers that local and regional authorities should be consulted with regard to future specific measures due to the role they play in planning and building the infrastructure, in attracting investors and in informing and consulting consumers;

50. notes that in many countries heating and cooling are the responsibility of municipalities (i.e. one of the utilities services), and therefore that in this regard the local level is essential in encouraging all stakeholders in the sector (households, industry) to be involved in the development of the sector, by creating the conditions to boost competition and reducing heating costs;

*The importance of information and public involvement*

51. points out that promoting the general use of modern technologies and efficient and sustainable heating or cooling systems, which enable efficient use of energy and resources will contribute to safeguarding ambient air quality and individual and social welfare;

52. notes the fact that renovation or fuel switching or other measures alone will not bring significant results; proper information is of the utmost importance. Building owners often lack knowledge about the benefits of renovation. Heating and cooling make up on average 6% of Europeans' consumption costs. 11% of the population are unable to keep their houses sufficiently warm in

winter[7]. Consumers' choices are limited due to the lack of information on actual energy consumption and costs, and often due to insufficient resources to invest in high-efficiency technologies. It is difficult to compare technologies and solutions in terms of lifetime costs and benefits, quality and reliability. Therefore suggests that the central government and local and regional authorities should cooperate in raising public awareness and educating consumers about energy efficiency measures and energy saving techniques;

53. notes that, taking into account scientific progress and technological development, the heating and cooling sector (like many other sectors) lacks specialists with appropriate knowledge in the field of constructing energy efficient buildings, energy efficiency and renewable energy technologies. In order to tackle this problem, it is important for all stakeholders in the sector to cooperate in regard to training qualified professionals, carrying out consultations, and implementing awareness-raising and educational programmes;

54. welcomes the establishment of the European Investment Advisory Hub (EIAH), which provides private and public project developers with technical support and tailored advice. However, notes that it would be appropriate for more advisory services to be provided on the ground, closer to the enterprises which need them. It is important to increase public and sector stakeholders' awareness about energy savings;

55. welcomes the Covenant of Mayors, which is based on an initiative by the Commission and in which the local and regional authorities undertake to reduce $CO_2$ emissions, thus contributing to the implementation of sustainable energy policy, and calls on the European Commission to provide incentives to participate in similar initiatives.

Brussels, 12 October 2016

The President
of the European Committee of the Regions

Markku Markkula

The Secretary-General
of the European Committee of the Regions

Jiří Buriánek

7 https://ec.europa.eu/energy/sites/ener/files/documents/1_EN_ACT_part1_v14.pdf

## II. PROCEDURE

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|---|---|
| **Title** | An EU Strategy on Heating and Cooling |
| **Reference** | Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – An EU Strategy on Heating and Cooling<br>COM(2016) 51 final |
| **Legal basis** | Art. 307, 1er al. |
| **Procedural basis** | |
| **Date of Council/EP referral** | 15 July 2016 |
| **Date of President's decision** | 22 February 2016 |
| **Commission responsible** | Commission for the Environment, Climate Change and Energy |
| **Rapporteur** | **Daiva Matonienė (LT/ECR)**<br>Member of Šiauliai City Municipal Council |
| **Analysis** | 27 April 2016 |
| **Discussed in commission** | 30 June 2016 |
| **Date adopted by commission** | 30 June 2016 |
| **Result of the vote in commission (majority, unanimity)** | Majority |
| **Date adopted in plenary** | 12 October 2016 |
| **Previous Committee opinions** | **N/a** |
| **Date of subsidiarity monitoring consultation** | **N/a** |