



**European Committee
of the Regions**

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OPINION

Powering a climate-neutral economy: An EU Strategy for Energy System Integration

THE EUROPEAN COMMITTEE OF THE REGIONS

- stresses that the current crisis highlights the need to ensure continuity of energy and electricity supply in every European region, including in situations where global supply chains may be disrupted;
- notes that the European Union currently imports 58% of the energy it needs, mostly in the form of oil and gas. The clean energy transition will reduce the EU's dependence on fossil fuels and import thereof. The EU Strategy for Energy System Integration will contribute to this process and to meeting the energy and climate targets. Moving towards cleaner energy carriers, as well as adopting efficient energy use measures, the EU as a whole will consume less energy, increase the number of energy producers via tools to facilitate self-consumption and the creation of energy communities, use local renewable resources to a greater extent and gradually diversify energy imports. Energy savings, diversification and local energy production will help make Europe's economy more resilient and reduce dependence on external sources;
- welcomes the Commission's view that the proposed scale of the EU Strategy to harness the potential of offshore renewable energy for a climate neutral future can only be achieved if all stakeholders – Member States, local and regional authorities, the EU population, social partners and NGOs – work together; stresses that, in order to ensure continued and increasing progress in the field of offshore renewable energy, legal certainty and clarity must be ensured, as investments are generally highly capital intensive, especially in the early stages of a project;
- notes that according to the EU strategy to reduce methane emissions, the EU accounts for only 5% of global methane emissions. Imports of goods into the EU's single market should only be allowed from countries (or parts thereof) that provide the same standards for greenhouse gas reduction as the EU. Only in this way will it be possible to ensure that the climate targets set by the EU will not adversely affect the competitiveness of the EU and its businesses at global level.

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Reference document

Communication from the Commission to the European Parliament, the Council, the European Economic And Social Committee and the Committee of the Regions: Powering a climate-neutral economy: An EU Strategy for Energy System Integration COM(2020) 299

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 to harness the potential of offshore renewable energy for a climate neutral future COM(2020) 741

Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions on an EU strategy to reduce methane emissions COM(2020) 663

**Opinion of the European Committee of the Regions –
Powering a climate-neutral economy: An EU Strategy for Energy System Integration**

I. POLICY RECOMMENDATIONS

THE EUROPEAN COMMITTEE OF THE REGIONS

Electricity continuity, interconnection of electricity networks in the European Union (EU) and the clean energy transition

1. stresses that the current crisis highlights the need to ensure continuity of energy and electricity supply in every European region, including in situations where global supply chains may be disrupted;
2. believes that the energy characteristics of Europe's regions vary greatly in terms of their electricity demand, generation potential and available infrastructure, including within the borders of the same country. Therefore, in addition to international connections between systems, further effort must be made to develop intranational interregional infrastructure to ensure in particular that renewable energy is transferred from regions with considerable resources, and this infrastructure should be supported by an overall European vision, as it contributes to the cohesion of the European electricity market;
3. points out that it is also important to strengthen transnational cooperation by carrying out energy projects jointly and increasing the capacity of transnational connections in order to cover potential electricity shortages during peak hours. However, national minimum levels of secure power plant capacity must not be undercut;
4. notes that the European Union currently imports 58% of the energy it needs, mostly in the form of oil and gas. The clean energy transition will reduce the EU's dependence on fossil fuels and import thereof. The EU Strategy for Energy System Integration will contribute to this process and to meeting the energy and climate targets. Moving towards cleaner energy carriers, as well as adopting efficient energy use measures, the EU as a whole will consume less energy, increase the number of energy producers via tools to facilitate self-consumption and the creation of energy communities, use local renewable resources to a greater extent and gradually diversify energy imports. Energy savings, diversification and local energy production will help make Europe's economy more resilient and reduce dependence on external sources;
5. underlines the importance of clean hydrogen, primarily from renewable energy, as highlighted in the EU Energy System Integration Strategy, for the further integration and decarbonisation of the energy system; calls in this connection for the swift implementation of the EU hydrogen strategy and refers to its opinion on clean hydrogen; expects the "Fit for 55" legislative package announced by the European Commission and the forthcoming revision of the EU gas market to put into effect the calls made in this opinion and to promote sectoral integration;
6. stresses the importance of enabling and promoting a variety of different solutions and combinations of energy systems, taking into account technological development and the

different circumstances in the EU's regions in terms of climate, geography, infrastructure, energy systems, etc. The EU's regulatory framework should, as far as possible, be technology-neutral in relation to emission reduction and sustainability, taking into account all existing alternatives, especially those available at local level, and avoid overregulation and heavier administrative burdens for sustainable and secure solutions and steer efforts to reduce families' energy poverty. Energy production using nuclear fission does not meet the sustainability criterion;

7. is deeply concerned about the construction of Nord Stream 2 pipeline, which threatens European energy security, increases EU dependency on the Russian Federation, ignores the interests of many EU and non-EU countries and, in light of the EU's overall decarbonisation targets, is bound to become prematurely obsolescent. Supports the European Parliament in its view that the completion of this political project must stop immediately;
8. draws attention to the five dimensions of realising the Energy Union: increasing energy security, strengthening the internal energy market, increasing energy efficiency, reducing CO₂ emissions ("decarbonisation of the economy") and promoting research and innovation in the energy sector. Ensuring the continuity of electricity must play a more significant role in this – particularly in the event of a crisis, including an energy crisis – with a view to ensuring that critical infrastructure can operate continuously in all regions. In this context, solutions for local energy production, storage capacity and tools for flexibility are needed, alongside sufficient and versatile generation capacity, so as to create solutions for emergencies and interruptions for all inhabited areas, especially in less developed regions, those with low population density and those with isolated energy systems. At the same time, the need to modernise electricity transmissions should be emphasised. It is necessary to insist on removing physical barriers to the development of good quality interconnections between all EU regions to guarantee a genuine integration of the electricity system. Having several national energy systems work in synchronous mode significantly reduces the operating costs of the energy system and improves security by reducing the potential negative impact of local accidents on the stability of the energy system and simplifying its essential operating parameters, such as frequencies and maintenance;
9. stresses that particular attention should also be paid to the management and cost-effectiveness of the electricity system as well as to local solutions for energy production and storage (cost-effective batteries, pumped storage plants, etc.) and shared self-consumption;

The specific role of local and regional authorities

10. notes that the EU Strategy for Energy System Integration has a role to play in the economic recovery of local and regional authorities, particularly in the wake of the COVID-19 crisis. In making the transition towards a more integrated energy system, it is important to set the energy-efficiency-first objective at local and regional level, taking into account the broader context of the less developed regions and the reduction in greenhouse gas emissions. Energy efficiency reduces total investment and costs needed in relation to energy production, infrastructure and consumption. It also reduces use of land and materials as well as pollution and biodiversity loss. Energy system integration can help local and regional authorities achieve greater energy

efficiency as the available resources would be used for the transition to more efficient energy technologies;

11. believes that local and regional authorities should encourage both an increase in the share of renewable energy and improvement of policies and measures, particularly in the heating, cooling and transport sectors. It is also necessary to determine a clearer energy savings plan, particularly in the fields of transport and buildings;
12. points out that transport accounts for around 30% of final energy consumption in the European Union and depends primarily on petroleum products, and that its decarbonisation requires greater electrification of final consumption, both for direct use in transport and for the generation of new energy carriers such as fuel, without rejecting any technological solution for unjustified reasons. The CoR also deems it necessary to develop the energy infrastructure required for this and thus make a significant contribution to reducing energy dependency on third countries, thereby increasing Europe's energy security;
13. points out that buildings consume 40% of the energy consumed in Europe and that, therefore, a systematic plan to reduce consumption and encourage renewable energy sources in the building stock will significantly reduce energy dependency on third countries, thereby increasing Europe's energy security;
14. points out that investments to improve the energy performance of buildings, which are highly beneficial, should be supported by a sufficient budget to assist people with them, and that local authorities should be involved in planning and managing these resources;
15. calls on the Commission to provide maximum support for research into the renovation of buildings subject to traditional landscape or historical constraints so as to ensure a respectful integration of renewable energies, and calls for this issue to be made one of the cornerstones of the new European Bauhaus;

Strengthening the existing infrastructure of each region while aligning the best development path to their regional specificities

16. believes that when implementing the energy system, it is essential to assess the impact of the measures on growth in each region and in particular on achieving the cohesion policy objectives laid down in the Treaty on the Functioning of the European Union. This is the only way to achieve balanced development and genuine competition in an open market. Unfortunately, one of the obstacles is the significant difference in energy prices for end-users;
17. considers that account should be taken of the additional efforts required in the outermost regions to overcome technical barriers faced by systems that are not interconnected, without access to the internal energy market and without their own provision. This requires huge investments in energy infrastructure (back-up capacity, transmission networks including inter-island submarine cables, energy storage systems, smart grids and logistics for access, transport and storage of less polluting fuels) which taken together can guarantee the security and quality of energy supply

and the integration of the regions' local energy sources, especially renewable energy of a variable nature;

18. points out that, without taking away from innovative solutions, when integrating the energy system, it is mainly necessary to strengthen each region's existing basic infrastructure, whose strengths and advantages have been proven in practice. Given that the situations in regions vary widely in terms of climate and infrastructure, creative and smart solutions should be sought for the weak points in each region's basic infrastructure. It would be wrong to say, therefore, that the use of electricity for heating buildings should be increased in all regions. District heating is highly developed in a number of countries. In Latvia, for example, it covers more than 70% of the population, and the amount of energy supplied to customers by district heating is similar to the amount of electricity consumed in Latvia; district heating can contribute by providing energy storage and power generation and by making use of energy resources that cannot be exploited at building level. This requires district and local heating and heating networks to be converted gradually to renewable energy;

Cost-effective for people and businesses

19. stresses that when developing any energy system, it should be assessed whether it would lead to lower costs for businesses and people. The energy-efficiency-first principle should aim to reduce the climate impact and increase the resource efficiency of integrated energy supply systems as well as improving efficiency for end-users. At the same time, however, care must be taken to ensure that the transition does not go against the interests of consumers, namely that efforts to improve energy efficiency do not lead to higher energy tariffs or other costs for people and businesses without appropriate compensation;
20. believes that the objective of reducing greenhouse gas emissions should be achieved in the way that the Member State concerned considers most advantageous and effective, especially for the sections of society for which the Member State should provide social protection. It is therefore still necessary, in shifting to renewable energy sources in the future, to take into account the prerogative of each Member State and each regional and local authority to determine its own energy mix and energy supply structure;
21. stresses that both in the EU regulatory framework and in the Commission's future work, the Commission should play an important role in improving the EU public's knowledge and understanding of the use of renewable energy technologies, as well as support for renewable energy production, as the public's attitude towards some renewable energy technologies or their production is a major obstacle, together with regulations that fail to match advances in technology, to increasing the production of renewable energy. It is also essential not only to raise awareness among the local community, but also to demonstrate that it is the local community that benefits from renewable energy in practice;
22. notes that particular attention should be paid to solutions that would help close the significant gaps between end-users in terms of energy prices (including all related costs). The increased use of renewable resources in the energy system should also be assessed in terms of the cost for the

end-user. Thus, there is room for developing innovative and consumer-friendly solutions in this area;

The road to climate neutrality in 2050

23. notes that the additional efforts undertaken by regions with isolated electricity systems – for which innovative technological solutions enabling interconnection with other integrated networks are not yet available – should be taken into account. This is the case for the outermost regions, where alternative solutions need to be considered that, taken as a whole, can guarantee the security and quality of the energy supply while also achieving climate neutrality;
24. believes that the EU's goals for greenhouse gas or climate neutrality by 2050 can only be achieved by combining efforts on energy saving, energy efficiency, renewable energy and waste heat use. In order to achieve greenhouse gas emission reductions in all sectors, it is not only necessary to increase energy efficiency and promote the use of renewable energy sources, but also to develop connections to basic infrastructure;
25. notes that for Europe as a whole to achieve its 2050 climate neutrality target, what is important for the energy system in each region is not the percentage increase of the existing green energy share in total consumption, but real plans for each region to achieve the common EU target – the share of green energy in the total consumption in each region. In light of existing achievements¹, it is clear that national and regional efforts to integrate the energy system will vary significantly. For some regions, the challenge will be to increase the share of green energy in energy consumption, and for others it will be taking the necessary steps towards more efficient use of energy, and for others still it will be improving basic infrastructure. A regional approach to the local development of the EU Energy Strategy for System Integration is thus the basis for delivering a climate neutral economy;

Outlook on offshore renewable energy technologies

26. welcomes the EU Strategy to harness the potential of offshore renewable energy for a climate neutral future as realistic, stressing the need for concrete planning in order for the capacity of renewable energy sources – including the current installed offshore wind capacity – to be increased. Achieving the 2030 and 2040 climate targets requires the timely uptake of established and cost-effective renewable energies such as onshore wind and solar energy. The uptake of renewable energy is important for Member States to help move towards zero pollution and climate neutrality by 2050. Uptake is therefore an important element in the production of hydrogen from renewable energy sources for the decarbonisation of sectors in which emissions are difficult to reduce;
27. agrees with the need to support new renewable technologies (e.g. hydro, geothermal, solar, tidal, wave and floating offshore wind and solar technologies, offshore hydrogen generation) in a targeted manner, while at the same time supporting the EU's economic and environmental

¹ Eurostat, "Share of renewable energy in the EU up to 19.7% in 2019", <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20201218-1>.

objectives; stresses, at the same time, the need for a clear plan to link renewable energy production networks and installations, such as offshore grid and offshore wind power generation directly to a cross-border interconnector in the future. Offshore energy production combined with cross-border transmission would allow significant savings in terms of costs and use of maritime space. At the same time, fishing opportunities and shipping traffic must not be restricted;

28. calls for clear and practical conditions for the use of offshore renewable energy sources in terms of biodiversity considerations. Green energy and biodiversity objectives should not be pitted against each other, but practical ways should be found to achieve them, thereby making it easier to realise the offshore energy potential more quickly in practice and ensuring concrete maritime spatial planning, not only in line with the biodiversity requirements, with less disruption for marine life, but also taking into account people's desire to preserve the marine landscape, the growing potential of eco-tourism and demands to preserve the attractiveness of natural surroundings;
29. notes the potential of islands and outermost regions when it comes to developing offshore renewables, which could play an essential role in helping these regions transition to a climate-neutral economy and could also provide industrial, economic and social benefits throughout the EU;
30. points out that the use of offshore energy can lead to increased employment or retraining of workers, but that it is important not to restrict existing forms of employment and opportunities related to them. It is essential to ensure the reskilling and upskilling of the workforce, in line with the specific needs of the offshore renewable energy sector;
31. calls for a special role to be played by ports in the EU's offshore renewable energy strategy through modernising them and ensuring that they take advantage of the new business opportunities for the assembly, production and maintenance of offshore energy installations;
32. welcomes the Commission's view that the proposed scale of the EU Strategy to harness the potential of offshore renewable energy for a climate neutral future can only be achieved if all stakeholders – Member States, local and regional authorities, the EU population, social partners and NGOs – work together; stresses that, in order to ensure continued and increasing progress in the field of offshore renewable energy, legal certainty and clarity must be ensured, as investments are generally highly capital intensive, especially in the early stages of a project;

A new EU strategy to reduce methane emissions – new opportunities

33. notes that according to the EU strategy to reduce methane emissions, the EU accounts for only 5% of global methane emissions. It can therefore be concluded that even the most ambitious EU plans to reduce methane emissions will have little impact on reducing the planet's greenhouse gas emissions. Imports of goods into the EU's single market should only be allowed from countries (or parts thereof) that provide the same standards for greenhouse gas reduction as the EU. Only in this way will it be possible to ensure that the climate targets set by the EU will not adversely affect the competitiveness of the EU and its businesses at global level;

34. calls for the faster detection of methane leaks both through the Copernicus programme and through other tools where the Copernicus programme is not able to provide sufficient data. It is essential to identify areas with significant methane leaks outside the EU and to make this information public, thus enabling EU citizens to make informed choices as to whether to purchase goods produced in such locations. According to the International Energy Agency's World Energy Outlook, there are significant differences between oil and gas plants in various countries throughout the world in terms of methane emissions, which shows the potential for significant reductions in methane emissions. The CoR therefore calls both for the avoidance of methane leakage along the production, transport and utilisation chains within the EU and for the prevention of imports of fossil fuels with input from methane leakage during extraction, processing and transport;
35. draws attention to the fact that around 41% of global methane emissions come from natural (biogenic) sources, such as wetlands or wildfires, as stated in the EU strategy to reduce methane emissions. Preventing and effectively fighting wildfires in the EU should become one of the most important objectives, as they not only affect the rise in global temperatures, but cause extreme damage to Europe's nature, people and businesses; calls also for consideration to be given to the EU's potential to promote more effective prevention and suppression of wildfires in other countries outside the European Union, where significant forest areas are burned each year;
36. calls, at the same time, for ensuring that methane reduction targets do not adversely affect the convergence of European regions or increase socio-economic disparities between them;
37. calls for the CAP (Common Agricultural Policy) to include effective measures to cut methane emissions from agriculture. Low input systems such as grazing, together with soil protection measures, can make an important contribution to this as part of the new eco-schemes;
38. calls for greater attention to be paid to European producers in developing technologies and making them available, so that the methane reduction targets do not lead to additional costs for people and businesses, in particular arable and livestock farmers. At the same time, when reducing methane emissions in agriculture and livestock, it is important to ensure there is no rise in food prices;

Final conclusions

39. stresses that, in addition to making use of new opportunities in renewable energy production, it is still important to ensure that the European network is extended as a matter of priority to cover each region in the common European energy network. This will allow renewable resources available in different locations to better complement each other. Minimum standards for security of electricity supply and maintenance of network stability are also a matter of urgency;
40. points out that it is important to take into account existing regional disparities, paying particular attention to rural and sparsely populated areas, and to support cost-effective solutions, ensuring a reduction in energy costs for Europe's people and businesses, particularly vulnerable groups,

and taking care not to exacerbate the energy poverty which may be affecting the most vulnerable groups;

41. notes that the COVID-19 pandemic makes it even clearer that there is a need for an energy transition that will foster a more sustainable society and economy while guaranteeing the capacity of each European region to deliver basic services during a crisis; stresses that the transition must be fair, gradual and irreversible, as short-term unsustainable solutions could cause harm rather than benefits;
42. stresses the need for a more systematic approach to the involvement of local and regional authorities in making decisions on the energy transition. It is important to ensure that the relevant local and regional authorities are involved in the development of national energy and climate plans, possibly via multilevel climate and energy dialogues; reiterates its call for the Member States and the Commission to set up a permanent multi-level dialogue platform on energy issues in order to promote the active involvement of local and regional authorities, civil society organisations, businesses and other stakeholders in the governance of the energy transition. The CoR points out that the renewable energy directive ((EU) 2018/2001) has provided a very good basis for renewable energy communities. Member States are called upon to transpose the directive in order to increase participation in citizen energy communities;
43. points out that in order to achieve the new objectives, it is essential to cooperate with local and regional authorities and to properly inform and raise awareness among the general population and entrepreneurs, which forms a basis for shaping our future sustainably;
44. stresses that, given the importance of citizen participation, it should be unthinkable that the EU Energy System Integration Strategy could be implemented successfully without initiatives that promote a bottom-up flow of information and foster information exchange and education at local level; notes that proper stakeholder involvement not only facilitates public support for policy measures, but also promotes a comprehensive and transparent assessment of progress.

Brussels, 7 May 2021

The President
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Apostolos Tzitzikostas

The Secretary-General
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Petr Bližkovský

II. PROCEDURE

Title	Powering a climate-neutral economy: An EU Strategy for Energy System Integration
References	Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Powering a climate-neutral economy: An EU Strategy for Energy System Integration
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Commission responsible	Commission for Environment, Climate Change and Energy (ENVE)
Rapporteur	Gunārs ANSINŠ (LV/RE) Member of Liepāja City Council
Analysis	
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Previous Committee opinions	
Date of subsidiarity monitoring consultation	