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Subject: Conclusions on the future of energy systems in the Energy Union to ensure the energy transition and the achievement of energy and climate objectives towards 2030 and beyond

- Council conclusions (25 June 2019)

Delegations will find in the annex the Council conclusions on the future of energy systems in the Energy Union to ensure the energy transition and the achievement of energy and climate objectives towards 2030 and beyond, adopted by the Transport, Telecommunications and Energy Council held on 25 June 2019.

COUNCIL CONCLUSIONS

on the Future of Energy Systems in the Energy Union to ensure the energy transition and the achievement of energy and climate objectives towards 2030 and beyond

The Council of the European Union:

1. RECALLING:

- the conclusions adopted by the European Council on 13 and 14 December 2018, especially with regard to the invitation to continue work on the elements outlined in the Commission Communication "A Clean Planet for all",
- the conclusions adopted by the European Council on 21 and 22 March 2019 that emphasise the importance of the EU submitting an ambitious long-term strategy by 2020,
- the conclusions adopted by the European Council on 20 June 2019 addressing the Communication by the European Commission on a European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy,
- the 'Clean Energy for all Europeans' legislative package, setting the framework for the implementation of the Union's 2030 climate and energy targets on greenhouse gas reductions, renewable energy increases, energy efficiency improvement and electricity interconnections,
- the conclusions adopted by the Council on 21 November 2018 on 'a future EU Industrial Policy Strategy' that emphasise the importance of mainstreaming industrial policy across all EU policies including energy policy.

2. TAKING NOTE OF:

- The Commission Communication of 16 February 2016 on an 'EU Strategy on Heating and Cooling',
- The Commission Communication of 23 November 2017 on 'Strengthening Europe's energy networks',
- The report from the Commission on 'Energy prices and costs in Europe' of 9 January 2019,
- The report from the Commission titled 'Fourth Report on the State of the Energy Union' of 9 April 2019,
- The Commission Recommendation of 3 April 2019 on Cybersecurity in the Energy Sector.

3. **AKNOWLEDGING** the five dimensions of the Energy Union with a forward-looking climate policy, that are closely interrelated and mutually reinforcing: energy security, solidarity and trust; a fully integrated European energy market; energy efficiency contributing to moderation of demand; decarbonization of the economy; and research, innovation and competitiveness, and the need to provide a coherent strategy and a balanced approach of the five dimensions and **RECOGNISING** the importance of mainstreaming all sectoral policies to support energy and climate objectives, security of supply and energy access for the consumer.

4. **UNDERLINES** the importance of the EU submitting an ambitious long-term strategy by 2020 striving for climate neutrality in line with the Paris Agreement, while taking into account Member States' specificities and the competitiveness of European industry and **RECOGNISES** the need to step up the global efforts to tackle climate change in light of the latest available science, especially the IPCC Special Report on the impacts of global warming of 1.5°C above preindustrial levels.

5. STRESSES the need for the energy transition, towards an affordable, safe, competitive, secure and sustainable energy system, and the achievement of energy and climate targets towards 2030 and beyond, in particular by developing interconnected, reliable and cost-effective energy networks and by modernizing the energy system through the promotion of innovative technologies, digitalization as well as sector coupling and sector integration, while ACKNOWLEDGING that well-functioning energy markets are important for a cost-efficient energy transition, recognizing the principle of technology neutrality as well as the Member State's right to choose their energy mix and technologies.

6. UNDERLINES the importance of ambitious Integrated National Energy and Climate Plans (NECP) and their effective implementation as well as regional coordination and cooperation between the Member States with regard to these plans, while taking into account the Member State's specificities and different potentials reflected in the NECP and while respecting the Member States' right to determine their choice between different energy sources and the general structure of its energy supply, and RECOGNIZES the role of the Energy Union governance system and the exchange of best practices to guarantee and facilitate the achievement of the energy and climate targets towards 2030 and beyond.

7. STRESSES the importance of citizens and businesses to be at the core of the energy transition process, in order to ensure public support for the EU's energy and climate targets towards 2030 and beyond as well as public acceptance regarding measures, and providing for a just and fair transition that takes into account vulnerable customers, energy poverty and regional social and economic impacts, such as on coal-intensive regions, oil shale and peat regions¹.

8. UNDERLINES the need for affordable energy for household consumers as well as for industry, in order to ensure its global competitiveness.

9. STRESSES the need for a level playing field for European electricity producers' to ensure competitiveness while complying with Union energy and climate goals vis-à-vis producers from third countries.

¹ As addressed for instance by the "Platform on coal and carbon intensive regions in transition".

10. RECOGNISES the need for public and private investments to facilitate the energy transition in all relevant sectors and the importance of ensuring adequate EU and national financial support and a stable and predictable investment framework, EMPHASISING in this respect the importance of the EU's overall financial framework, the role of the European Investment Bank to provide multipliers for sustainable investments and the importance of EU state aid rules that are coherent with the EU energy and climate goals towards 2030 and beyond and with relevant EU legislation to implement these goals.

11. UNDERLINES the need to implement the energy efficiency first principle in line with the Regulation on the Governance of the Energy Union and to improve energy efficiency, for instance through the reduction in energy consumption in buildings, in energy infrastructure as well as in industrial appliances, while STRESSING the need to remove regulatory and other market barriers and making use of common standards.

12. ACKNOWLEDGES the important role of regional cooperation in ensuring the energy transition and the achievement of the objectives of the Energy Union, including through the already established cooperation fora in the EU and with external actors.

I. To promote the development of reliable and cost-effective energy networks the Council:

13. STRESSES the importance of cost-effective and efficient local, regional and national energy networks as enablers of the energy transition for the functioning of the internal market and in order to ensure security of supply, with a focus on diversification of energy sources and routes and improvement of markets' integration.

14. UNDERLINES the importance of making the energy infrastructure ready to make use of the opportunities offered by the ongoing process of modernization and decarbonization, by the growing shares of renewable energy, in order to evolve into a secure, fit-for purpose, modern, effective, smart and resilient energy system across the EU.

15. IDENTIFIES the following energy infrastructure priorities:

- a. Enhance the development of cross-border interconnections necessary to reach the 10% electricity interconnection target for 2020 with the objective of arriving at a 15% target for 2030, as defined in the Governance Regulation and supporting projects that are crucial for the connection, integration and synchronization of Member States' systems into the EU energy networks and also addressing intra-state bottlenecks and missing internal connection links, aiming at achieving a fully effective and more integrated internal energy market; and enhance energy and power sector flexibility by promoting inter alia energy storage, grid expansion, flexible generation, power-to-x technologies, sector coupling as well as demand management solutions such as smart metering;
- b. Further facilitate the roll-out of RES as well as their integration in the networks, both at transmission and distribution level, including the integration through offshore grids and hubs, particularly through promoting sector integration and developing storage solutions, bearing in mind the need of enhanced transmission networks to maintain grid stability and security of supply;
- c. Facilitate the further electrification of the economy, in particular in emissions' intensive sectors, such as in the transport and industry sectors;
- d. Exploit the significant potential for the deployment of renewable heat, waste heat and highly efficient CHP in the heating and cooling sector, including district heating and cooling;
- e. Promote the development of infrastructure for E-mobility, renewable and other alternative fuels such as hydrogen, biogas and synthetic fuels in line with Directive 2014/94 on alternative fuel infrastructure, such as the EV charging infrastructure in the public and private areas, across the EU;
- f. Analyze the role of existing infrastructure in order to secure a cost effective energy transition and avoid lock-in effects and stranded assets and optimize the utilization of existing infrastructure and available interconnections, by making maximal use of market integration, sector coupling and regional cooperation;
- g. Ensure the protection of critical energy infrastructure and their cybersecurity.

II. To promote the development and deployment of innovative technologies the Council:

16. CALLS on the importance of creating a level-playing field for available and emerging low-carbon technologies and market-based solutions, while EMPHASISING that technologies to be deployed must be reliable, safe, sustainable and environmentally sound.

17. RECOGNIZES the importance of research and demonstration as well conditions that allow innovative new technologies contributing to Union energy and climate objectives to develop and mature under market conditions, STRESSES the need to significantly increase investments in Research, Development and Innovation to facilitate technological leadership of European companies with regard to both established and emerging technologies, while also promoting business models and social innovations to ensure the deployment and acceptance of the technological solutions and ENCOURAGES in this context the development of technologies that facilitate a structural change in the way society and businesses relate to energy by incentivizing behavioral changes by individuals and companies that will help to underpin the energy transition.

18. UNDERLINES that digitalization, including the development of smart grids and data management and its protection, will play a fundamental role for future energy systems, providing increased flexibility and supporting the energy efficiency first principle and security of supply, while RECOGNISING that cybersecurity and the protection of personal data will have to be ensured throughout the entire energy sector.

19. REITERATES that storage systems, both conventional and new solutions, are key for transition, when contributing to decarbonization.

20. ENCOURAGES the improvement of and access to EU funds, in particular for active consumers and energy communities as well as for industry when innovating and when adapting to energy transition needs, while ensuring a level playing field within all market participants.

21. STRESSES the importance of market-based solutions in combination with cost-efficient financial support for the swift deployment of renewable energy, inter alia through the new Union renewable energy financing mechanism within the Multiannual Financial Framework, energy efficiency and other low-emission technologies with an aim to reap renewables and energy efficiency potentials, especially in the buildings sector, and exploiting synergies with other EU funding schemes such as Horizon Europe, the Connecting Europe Facility, the InvestEU programme and Structural Funds in order to ensure cost-effective funding of the energy transition and ENCOURAGES in this context the use of financial de-risking instruments, for the renewable and energy efficiency sectors.

22. RECOGNISING the Union's ambition for renewable energy and energy efficiency, TAKES NOTE that solutions that are based on carbon capture and storage (CCS) and carbon capture and use (CCU) technologies may play a role for decarbonization, especially for the mitigation of process emissions in industry, for the Member States that choose this technology.

23. RECOGNIZES the necessity to assess and take account of the costs and benefits of the deployment of new technologies on both economic and social dimensions, with the aim of maintaining and improving industrial competitiveness of the EU on a global level in order to foster growth and employment, while avoiding measures that would be detrimental to it and STRESSES the opportunities offered by a truly European industrial policy approach to create appropriate and supportive conditions for the EU to be in the lead regarding the energy transition.

III. To promote sector coupling and sector integration the Council:

24. HIGHLIGHTS the importance of sector integration and sector coupling, such as of electricity, gas, heating and cooling as well as transport infrastructure, supported by digitalization, that are key to contribute to the decarbonization of the energy system in a cost-effective manner, and considering that citizen participation and self-consumption, such as through Smart Cities and energy communities, is important to realising sector coupling.

25. CALLS on the importance of ensuring a level playing field across sectors so that the more cost effective and reliable solutions for decarbonization are deployed and STRESSES in this regard the need to analyze possible regulatory and other unjustified market barriers and gaps, and explore common standards in order to facilitate the market uptake and the development of sector integration and sector coupling technologies.

26. STRESSES the need to better exploit the synergies between different parts of the energy system, production, transport, trade, transformation, distribution and consumption, and by empowering consumers, including in transport and industry, to become active participants in the energy system, thus contributing to decarbonization and system flexibility.

27. EMPHASIZES the potential of biogas and biomethane as well as the development and deployment of safe and sustainable low-carbon technologies contributing to decarbonization. The production of hydrogen, particularly from renewables, has a potential which needs to be further assessed and explored, with a view to make the best use of the existing EU gas infrastructure in a decarbonized energy system.

In view of the next legislative term the Council:

28. CALLS on the European Commission to take into account the above mentioned principles when presenting proposals in any policy areas and more specifically when presenting proposals to further develop reliable and cost-effective energy networks and to further modernize the energy system through the promotion of innovative technologies, digitalization and sector coupling and sector integration, while striving for climate neutrality in line with the provisions of the Paris Agreement.

29. CALLS on the European Commission to undertake an analysis of sector coupling and sector integration technologies, including the production of hydrogen, in particular with regards to regulatory and market barriers and based on this analysis explore possible initiatives regarding the efficient integration and deployment of such technologies and energy carriers.

30. CALLS on the European Commission to reflect the efforts required to reach the EU energy and climate targets for 2030 in the context of any future revision of the EU State aid rules.