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THE EUROPEAN UNION**

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**NOTE**

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from: General Secretariat of the Council  
to: Delegations

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Subject: Communication from the Commission to the European Parliament, the Council,  
the European Economic and Social Committee and the Committee of the Regions  
- Energy Roadmap 2050  
= Presidency conclusions

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Delegations will find attached a text on the above subject, which was accepted by 26 delegations at the meeting of the TTE Council (Energy) on 15 June 2012 and subsequently issued as Presidency conclusions.

**Presidency Conclusions  
on the Energy Roadmap 2050**

The Danish Presidency of the Council,

RECALLING:

- conclusions on energy, adopted by the European Council on 4 February 2011,
- conclusions on "Energy 2020; A strategy for competitive, sustainable and secure energy", adopted by the TTE Council on 28 February 2011,
- conclusions adopted by the European Council on 29/30 October 2009, especially with regard to point 7 of Section II (Climate change) in which the European Council supports an EU objective, in the context of necessary reductions according to IPCC by developed countries as a group, to reduce GHG emissions by 80-95% by 2050 compared to 1990 levels,
- conclusions adopted by the European Council on 9 December 2011, especially with regard to paragraph 7, section II (Energy) with reference to agreement on the low-carbon 2050 strategy.

WELCOMING the Commission Communication, of 15 December 2011, on the Energy Roadmap 2050 which provides, through its technology neutral approach and the diversity of its illustrative scenarios, useful perspectives on the various routes towards decarbonisation<sup>1</sup> of the European energy system by 2050.

CONSIDERING the Energy Roadmap 2050 as guidance in the further process of developing a long-term stable policy framework towards a low carbon emission, sustainable, competitive, affordable, safe and secure energy system in 2050, through its identification of key options, under certain assumptions, to reduce uncertainty among investors, decision-makers and citizens.

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<sup>1</sup> Reference to "decarbonisation" and "low carbon" throughout these conclusions should be understood as not excluding energy technologies that while using carbon-based fuel have low carbon emissions.

## **I. Horizontal principles**

1. STRESSES the urgent need for a major transformation process in production, transport, supply and consumption of energy in order to meet the EU's decarbonisation objective and the objectives of ensuring security of energy supply and competitiveness in an environmentally sustainable, cost-efficient, effective, safe and socially acceptable way, which enables diversified technology approaches, taking into account the national energy-mix, preferences, potential and characteristics of each Member State.
2. STRESSES that energy supply and energy security are strongly interconnected with the EU's economic development and competitiveness and thus EMPHASISES the need to pursue the transition of the EU's energy system while taking into account its economic impacts and the global developments.
3. RECOGNISES that the task of developing post-2020 strategies which creates a more stable investment framework is necessary and urgent, and thus ENCOURAGES work to define the 2030 policy framework in the appropriate timetable, to provide investor security and ensure a cost-efficient and effective transition while avoiding lock-in effects. UNDERLINES, as a basis, the necessity to ensure and monitor the timely and full implementation of the priorities of the EU's Energy 2020 strategy, including the legislation called for by the strategy.
4. RECOGNISES, under certain assumptions, the findings of the Energy Roadmap 2050 that decarbonisation of the energy sector on a EU wide scale is technically and economically feasible, and could in the long term be less costly than a continuation of current policies; and that sound investments will pay off in the long-term perspective, in terms of growth, employment, greater energy security and lower fuel costs while, at the same time, decreasing import dependency, improving health and reducing air pollution.
5. NOTES, that the costs of the transition towards decarbonisation will not be the same among Member States.

6. In order to assist the transition of the energy system, RECOGNISES the need to promote adequate actions for the general public, in particular concerning:
- the role of the consumer, especially as regards demand-side management;
  - the consequences for competitiveness, innovation, growth, employment and jobs;
  - education and training of skills to meet the transition;
  - public awareness and acceptance;
  - addressing the consequences of potential increases in energy prices for consumers, notably for the most vulnerable.
7. While RECALLING the competence of each Member State to define its own energy-mix and ACKNOWLEDGING that the Energy Roadmap 2050 complements national, regional and local efforts to modernize energy supply, URGES the Member States and the Commission to continue to pursue options which can meet the EU's decarbonisation objective in an economically efficient, safe and sustainable way, continue the efforts to fully tap the potential for cost-effective energy savings, and avert significant import dependencies. RECOGNISES when pursuing these options the merit in further developing a more coordinated European approach and making best use of available financial instruments.

## **II. Key elements of a long-term strategy**

1. RECOGNISES the findings of the Energy Roadmap 2050 that the following core elements would be required in the pathways towards a low-carbon 2050 energy system ("no-regret" options):
- the urgent need for new, smart and flexible infrastructure and fully integrated network planning, as proved necessary;
  - the need for increased energy efficiency and energy savings to ensure a more energy efficient system and to create a stable framework for energy efficiency and energy savings investments post 2020;
  - a substantially higher share of renewable energy in EU gross final energy consumption beyond 2020, including in 2030, as a key aspect of a more safe and sustainable energy system, while CONSIDERING as well the increasingly competitive nature of renewable energy.

2. RECOGNISES, as an important element of a long term strategy required in the pathways towards a low-carbon 2050 energy system, the contribution that different safe and sustainable low carbon technologies will deliver to the decarbonisation of Europe's energy system, as well as the development of those technologies in line with Member States' national preferences.
3. EMPHASISES that transition of the energy system towards decarbonisation will require considerable public and private investments in R&D and technological innovation and UNDERLINES the importance of facilitating market driven technology solutions; RECOGNISES the importance of the continued implementation, improvement and financing of the European Strategic Technology (SET) Plan<sup>1</sup> and of other technology initiatives, as appropriate.
4. EMPHASISES from a security of supply and competitiveness perspective, both at national and international level, the benefit of having available diversified technology solutions that should be environmentally sound as well as socially and economically acceptable in the short as well as in the long term, while allowing for different approaches for technologies depending on the energy policies of Member States.
5. NOTES that optimal, safe and sustainable use of domestic energy resources and the competitiveness of infrastructure necessary for the stable supply of domestic or imported energy, including refining, can contribute to increased energy security.
6. NOTES the findings of the Energy Roadmap 2050 that gas plays a key role for the transformation of the energy system.
7. RECOGNISES the need to consider the integration of the transport sector in the pathways towards a low-carbon 2050 energy system.

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<sup>1</sup> AT would like to recall its statement to the minutes of the Council on 28 February 2008 regarding the SET-plan.

8. CONSIDERS that market oriented measures, such as carbon pricing and national market oriented policies, are efficient instruments to achieve greenhouse gas emissions reduction and could, if adequate and robust, provide an incentive for investments in safe, sustainable and clean low-carbon technologies across the EU; EMPHASISES that emissions trading, with ETS as a key instrument, needs to play an increased role in the long-run, while, taking into account efforts by third countries, mechanisms need to be in place to avoid the risk of carbon leakage.

### **III. Internal energy market**

1. STRESSES that the EU energy policies and the further improvement of the EU-wide energy market will be key to delivering the EU energy and climate change objectives in a cost-effective way; while EMPHASISING the need for a fully integrated market by 2014, NOTES the importance of full implementation in all Member States of the internal energy market legislation. RECALLS that no EU Member State should remain isolated from the European gas and electricity networks after 2015 or see its energy security jeopardized by lack of the appropriate connections.
2. HIGHLIGHTS the importance of ensuring that policy and regulatory developments in Member States would eliminate remaining infrastructure "bottlenecks" and do not create new barriers to electricity and gas or energy market integration and that energy policy decisions in each national system need to take account of how these could affect neighbouring EU Member States; EMPHASISES the important role of good coordination, information exchange and regular monitoring of national policies in this respect.
3. RECALLS that also in the long term markets must continue to play the main role in financing energy infrastructure investments<sup>1</sup>, with costs recovered through tariffs and STRESSES the need for a stable and predictable policy framework that encourages long-term energy infrastructure investments.

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<sup>1</sup> Infrastructure in this paragraph means the same as provided for in the infrastructure package.

4. ACKNOWLEDGES, that some projects that would be justified from a security of supply/solidarity perspective, but are unable to attract enough market-based finance, may require some limited public finance to leverage private funding and EMPHASIZES that such projects should be selected on the basis of clear and transparent criteria.
5. RECOGNISES that the first response to clearly identified energy market distortions has to be measures to improve market functioning. Therefore, CALLS for the rationalization and the phasing out of environmentally or economically harmful subsidies including for fossil fuels. Member States may wish to take into account the impact of such measures on the most vulnerable groups in society through appropriate social policy instruments.

#### **IV. External dimension**

While RECOGNISING that the EU operates in a global context, RECALLS the November 2011 TTE Council Conclusions on strengthening the external dimension of the EU energy policy, the benefit of a more coordinated EU approach to international energy relations in order to meet global energy challenges and climate change and to address competitiveness and carbon leakage related issues, while at the same time ensuring the safe, sustainable, secure and diversified supply of energy.

#### **V. Follow-up**

1. With a view to reducing long term regulatory uncertainty, INVITES the Commission to:
  - regularly monitor and report on already put in place measures and legislation described in the Energy Roadmap 2050, making full use of existing reporting mechanisms, and to proceed with appropriate actions as a result of the monitoring. While STRESSING that timely decisions have to be taken on the basis of the current information and the Energy Roadmap 2050, FORESEES regular review of the Energy Roadmap 2050 in an iterative approach, building on further Commission analysis and the continued and regular involvement of Member States and their national long-term plans, in a fully transparent manner;

- based on the continued analysis of the climate and energy package and results hereof, propose a 2030 policy framework in due time, based on the above key elements, including the no-regrets options identified in Section II above, taking into account possible future no-regrets options and lessons learned from the 2020-framework, including the interactions between different targets, instruments, efficiency measures, infrastructure developments and national support schemes, and also taking into account the impact on Member States, the various potential energy mixes and national conditions in Member States and of international developments such as carbon leakage and adverse effects on competitiveness as well as the need for consistency with future EU climate policies, while respecting the Horizontal principles set out in Section I above.
2. AWAITS the Commission's communications on Renewable energy sources, CCS and the internal market which will address key elements for the implementation of the Energy Roadmap 2050, and which could suitably also address the issue of market design.
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