European Commission

Group of Chief Scientific Advisors'

Statement on energy prices in Europe: Put people at the centre of energy policy

Scientific Advice Mechanism (SAM)

October 2021

Key messages in this statement

- *Making energy production less expensive and more reliable requires major upfront investment, in particular to expand low-carbon energy technologies and phase out coal.*

- *To combat the climate crisis, Europe must commit clearly to accepting high carbon prices, at the same time as protecting people in danger of energy poverty.*

- *Getting society's approval for the clean energy transition requires policymakers to actively engage with the public and support low-carbon choices, besides fostering technological innovation.*

The challenge – energy supply and rising prices

Energy prices in Europe have soared in recent months. Reasons include gas shortages and rising global energy demands as economies bounce back from the COVID-19 pandemic. The 54 million Europeans[1] who risk suffering from the consequences of energy poverty must not be left behind.

Accelerating the transition towards a low-carbon energy system would stabilise energy prices in the long term. The increased share of renewable energy, which is cheaper to produce than gas and coal, led to a drop in wholesale electricity prices in 2019[2]. Experts are confident that low-carbon sources like wind and solar are key to providing everyone with universal access to clean, fair and modern energy services[3].

Growing the share of low-carbon energy will also greatly reduce Europe's dependence on fossil fuel imports and make the system more resilient to external threats. The EU should mitigate the effects of new dependencies (e.g. on key metals needed for low-carbon technologies) by boosting up recycling and researching less expensive and more accessible alternatives for the most critical materials[4].

Lower production costs are not necessarily reflected in end-user energy prices; the low-

carbon energy supply is still a long way from meeting demand, and increasing the share requires major upfront investment. Rapid mobilisation of such investment needs an effective, consistent and fair regulatory system, based on a coordinated combination of policies including carbon pricing mechanisms as a driving force. A long-term political commitment to accepting high prices for carbon and other greenhouse gases by 2050 is crucial, as reducing emissions will become even more difficult as we get closer to our goal of carbon neutrality (net-zero emissions)[5].

The goal – making the clean energy transition fair and effective

The necessary and urgent large-scale investment in renewable energy generation and phasing out emission-intensive technologies could lead to higher and more volatile energy prices in the short term.

Furthermore, virtually all policy measures that support the clean energy transition (energy taxation, bans on cars with high emissions, carbon pricing, etc.) tend to have regressive effects that will hit the most vulnerable parts of society harder – unless appropriate and robust compensation mechanisms are put in place[6].

We therefore support the recent Commission proposal urging Member States to invest carbon-pricing revenue in '*address[ing] energy poverty and mobility challenges for the vulnerable, spur[ring] innovation and economic growth, and creat[ing] employment*'[7]. The clean energy transition and the immediate benefits of decarbonisation (e.g. less pollution and higher energy security) should be an opportunity to improve quality of life for everyone, not a burden[8].

EU policies to combat climate change might suffer from limited social acceptance, unless a clear connection is made between a high carbon price that reflects the environmental damage caused by emissions and compensatory schemes for those most affected. Public buy-in for the green transition could be boosted by creating participatory conditions that make low-carbon choices the most natural for individuals and society as a whole[9].

The solution? Putting people at the centre of energy policy

All scenarios for achieving net-zero emissions by 2050 involve a significant reduction in energy demand compared to the current situation. Investment in improving energy efficiency and energy saving are therefore no-regret options.

Historical trends suggest that energy-saving measures are unlikely to be effective without strong policies to counter rebound effects (e.g. situations where higher energy efficiency reduces costs and therefore increases demand)[10]. While new technologies, smart systems and digitalisation can help, public engagement is essential and cannot be achieved by economic or regulatory measures alone.

Transforming our energy system to achieve net-zero emissions is a complex task which involves many different players – from consumers to industry, from communities to regions and from various levels of government to companies of all sizes. Governments play an important role, yet empowering local bodies is essential for the system to be able to react and adapt faster to changing conditions[11].

People should be encouraged to take an active role in the fight against climate change, as consumers, producers and community members. They should be helped make informed choices and supported in avoiding carbon-intensive activities. Policy measures to remove barriers to such low-carbon choices require an understanding of cultural and social drivers of change and support for local energy initiatives, for instance energy communities[12].

To make the green energy transition a success, Europe needs a multi-pronged approach with people at the centre. A strong reaction to high energy prices is key. This includes immediate compensatory measures against energy poverty along with investment to increase the share of low-carbon energy production in the long term.

About this statement

This statement by the Group of Chief Scientific Advisors to the European Commission is based on its June 2021 scientific opinion *A Systemic Approach to the Energy Transition in Europe*, and informed by the Evidence Review Report drawn up by the Scientific Advice for Policy by European Academies (SAPEA) consortium.

The statement was prepared following a request from the Commission's Vice-President for Interinstitutional Relations and Foresight Maroš Šefčovič.

The Group of Chief Scientific Advisors consists of seven scientists from a range of disciplines, appointed in their personal capacity to act independently in the interests of the public.

Established in 2016, the Group provides the Commissioners with independent, high-quality scientific advice that has informed policy-making on more than a dozen topics.

For details of their work, see the Report on the work of Group of Chief Scientific Advisors 2015-19.

CONTACTS:
EC Group of Chief Scientific Advisors (GCSA)
E-mail: EC-SAM@ec.europa.eu
#SAMGroup_EU
Website: Group of Chief Scientific Advisors

[1] JRC (2019) Energy poverty through the lens of EU Research & Innovation projects
[2] COM (2020) 951 final, Energy prices and costs in Europe.
[3] International Energy Agency (2021), World Energy Outlook 2021.
[4] SAPEA (2021), A systemic approach to the energy transition in Europe, §5.4.
[5] GCSA (2021), A systemic approach to the energy transition in Europe: Scientific advice to strengthen the resilience of the European energy sector, §2.3.2.
[6] SAPEA (2021), A systemic approach to the energy transition in Europe, §3.6.
[7] COM (2021) 550 final, 'Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality.
[8] GCSA (2021), A systemic approach to the energy transition in Europe: Scientific advice to strengthen the resilience of the European energy sector, §2.2.3.
[9] GCSA (2021), A systemic approach to the energy transition in Europe: Scientific advice to strengthen the resilience of the European energy sector, §2.2.
[10] SAPEA (2021), A systemic approach to the energy transition in Europe, §5.1.
[11] GCSA (2021), A systemic approach to the energy transition in Europe: Scientific advice to strengthen the resilience of the European energy sector, §1.4.3
[12] GCSA (2021), A systemic approach to the energy transition in Europe: Scientific advice to strengthen the resilience of the European energy sector, §2.2

Publications Office of the European Union

ISBN 978-92-76-41914-3 doi.: 10.2777/138328 KI-06-21-100-EN