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Committee on Sustainable Energy

Twenty-fifth session

Geneva, 28-30 September 2016 and 19 January 2017

Revised Concept Note and Draft outcome document of the Eighth International Forum on Energy for Sustainable Development and Energy Ministerial

Note by the secretariat

I. Introduction

1. The Committee on Sustainable Energy (the Committee) at its twenty-fourth session welcomed and supported the offer by Kazakhstan to host a ministerial conference and the Eighth International Forum on Energy for Sustainable Development (the Eighth Forum) in Astana (ECE/ENERGY/99, para. 89). In consequence, the Governments of Azerbaijan and Kazakhstan have been collaborating with the sustainable energy subprogramme under the oversight of the Bureau to develop a concept, process and draft outcome document to support the energy ministerial to be held on 11 June 2017, on the second day of EXPO 2017 “Future Energy” and on the first day of the Eighth International Forum on Energy for Sustainable Development.
2. The Committee at its twenty-fifth session on 28–30 September 2016 then considered the proposal by the Governments of Azerbaijan and Kazakhstan to endorse the suggested concept for this event (documents ECE/ENERGY/2016/8 and ECE/ENERGY/2016/9) and recommended to conduct an open, informal, public, on-line consultation process involving all member States of all United Nations Regional Commissions, the Committee’s subsidiary bodies, all partners and interested stakeholders to refine the outcome document of the Eighth Forum and energy ministerial (ECE/ENERGY/2016/9, Annex).
3. The Committee further decided not to close the twenty-fifth session with the adoption of the report (ECE/ENERGY/107) but to adjourn the session with the objective to reconvene on 19 January 2017 to consider the revised outcome document for endorsement and to adopt the report of the twenty-fifth session.
4. 21 comments and recommendations were received through the on-line consultation process and can be found on the website¹. They have been integrated into draft 2 of a

¹ <https://www.unece.org/energywelcome/committee-on-sustainable-energy/committee-on-sustainable-energy/energycse-consultation-process/comments-received.html>

ministerial statement (see Annex of this document), which is presented to the Committee for endorsement, for subsequent approval by the United Nations Economic Commission for Europe (ECE) Executive Committee (EXCOM), for submission to the sixty-seventh ECE Commission session for endorsement.

5. The expectation is that ministers participating in the energy ministerial will commit to concrete actions to accelerate achievement of the energy-related Sustainable Development Goals.

6. The conference will be officially hosted by the Government of Kazakhstan. The Committee, the subsidiary bodies and all Regional Commissions have been invited to engage in the process.

II. Objective of the energy ministerial conference

7. The proposed ministerial dialogues are intended to enhance the understanding of sustainable energy and possible policy drivers to achieve a common goal on sustainable energy, promote a policy dialogue and provide awareness-raising of different outcomes that could emerge over time. It will further provide an opportunity to explore how the United Nations system can help implement or pursue sustainable agendas putting to the fore the regional context. Can we design a pathway to a sustainable energy system wherein a successful regional outcome is a composite of national choices?

8. In particular, the ministerial dialogue has the following objectives:

(a) Raise the importance of the regional context in attaining sustainable energy goals;

(b) Solidify the understanding of the role of fossil fuels in future energy systems in the short- and medium-term;

(c) Raise awareness about different plausible pathways for countries;

(d) Bring the voice of Central Asia and the Caucasus to energy and climate discussions;

(e) Encourage the establishment of an “international centre for green technology and investment under the auspices of the United Nations” in Astana.

9. The energy ministerial conference will offer the possibility to ministerial participants to share thoughts and experiences in plenary, followed by moderated roundtables on topics of their choice. The Eighth Forum, in consequence, will present ministers with a menu of options about what countries could do to attain the energy-related Sustainable Development Goals and implement national action plans based on a thorough analysis of the gap and the challenges ahead. The Eighth Forum and the ministerial conference are about understanding and then closing the gap quickly, seeking to advance solutions that promote energy efficiency and existing low-carbon energy technologies and policies.

III. Timeline and next steps

10. **28–30 September 2016:** Twenty-fifth session of the Committee on Sustainable Energy. The Committee endorsed the proposal for an on-line consultation process about the outcome document in preparation for the energy ministerial to be held under the auspices of the Eighth Forum on 11 June 2017 in Astana, Kazakhstan. The Committee decided to reconvene on 19 January 2017 to consider the comments and recommendations made through the consultation process.

11. **October 2016 to 2 January 2017:** Web-based consultation process. 21 comments were received and were published on the website.

12. **18–21 October 2016:** Seventh International Forum on Energy for Sustainable Development in Baku, Azerbaijan. This meeting brought together the five United Nations Regional Commissions with partners and allowed additional consultations to the proposed document. Document ECE/ENERGY/2016/8 and its Annex was adopted without changes and can be found on the website² as the Baku Call for Action.
13. **18 November 2016:** Eighty-seventh meeting of EXCOM. EXCOM was informed of the Committee’s recommendations, invited to participate in the consultation process and engage in the preparations for the Eighth Forum and energy ministerial.
14. **9 January 2017:** Revised outcome document sent to ECE member States, Regional Commissions and partners for consideration before the resumed twenty-fifth session of the Committee on Sustainable Energy.
15. **19 January 2017:** Resumed twenty-fifth session of the Committee on Sustainable Energy. Consideration of the ministerial outcome document, closure of the session with the adoption of the report.
16. **1 February 2017:** Eighty-ninth meeting of EXCOM. Further consideration of ECE/ENERGY/2016/9.Rev.1.
17. **26–27 April 2017:** Sixty-seventh Economic Commission for Europe session for potential endorsement of the Committee-approved recommendations and outcome document.
18. **11 June 2017:** Energy ministerial conference hosted by Kazakhstan in collaboration with partners.
19. **11–14 June 2017:** Eighth Forum, Astana, Kazakhstan.
20. **10 June – 10 September 2017:** EXPO 2017 “Future Energy”, Astana, Kazakhstan.
21. **26–28 September 2017:** Twenty-sixth session of the Committee on Sustainable Energy to report on progress made and present concrete actionable outcomes from the ministerial meeting.

² <https://www.unece.org/energywelcome/areas-of-work/energy-efficiency/meetings-and-events/energy-efficiency/energy-efficiency/2016/seventh-international-forum-on-energy-for-sustainable-development/docs.html#/>

Annex

Ministerial Statement

[Draft 2]

Access to affordable, reliable, sustainable, and modern energy

Our Pledge

We, the Energy Ministers of [countries], met in Astana, Kazakhstan on 11 June 2017, to explore ways to accelerate the transition to a sustainable energy system. Energy plays a crucial role in global economic growth and underpins all areas of development. We recognize that it is essential for our nations to secure access to affordable, reliable, sustainable, and modern energy and to reduce greenhouse gas emissions from the energy sector for the world to develop sustainably. We recognise the role of fossil fuels in the transition to a future sustainable energy system but note that improving efficiency and reducing emissions will be essential to meet environmental goals. We commit to those actions described herein that pertain to our national circumstances.

1. We support the development of national sustainable energy action plans aligned with our future energy needs, the 2030 Agenda for Sustainable Development, and the Paris Agreement, including notably agreed significant improvements in energy efficiency, reductions in the net carbon intensity of the energy sector, reductions in emissions of methane from the energy sector and ensuring energy access for all.
2. We encourage the establishment of an international centre for green technology and investment under the auspices of the United Nations in Astana to support our countries in the areas of energy market reform, energy efficiency, renewable energy, energy access, energy security, finance and investment, technology, and energy data, indicators and analysis and recommend it be linked to other international organisations.
3. We support the development and dissemination of internationally recognized minimum energy performance standards in all sectors.
4. We will participate on a voluntary basis in the development of methodology for public data collection, and the gathering and dissemination of appropriate data and indicators related to energy for sustainable development.
5. We will participate actively in international dialogue on technology, energy policy, and lessons learned to share best practices.
6. We call on the community of international organisations and other stakeholders involved in energy to coordinate their support for our efforts across the range of activities set forth in this document. We would like to convene again under the auspices of the United Nations to assess the progress on our pledges.

What is at stake?

The Crucial Role of Energy for Sustainable Development

If the world is to develop sustainably, it will be necessary to ensure access to affordable, reliable, sustainable, and modern energy services while reducing greenhouse gas emissions and the carbon footprint of the energy sector. Energy is a fundamental need as it provides the essential services of cooking, heating, cooling, lighting, mobility, and operation of appliances, information and communication technology, and machines in every sector of every country to support decent life and work. Energy is used by doctors as they provide healthcare in clinics, it provides lighting for children to study, and when it is unavailable women (most often) are obliged to pass their time gathering wood to burn for cooking (which then degrades indoor air quality). Energy is the golden thread that weaves throughout the 2030 Agenda and is at the core of meeting the world's quality of life aspirations. The challenge is reconciling a tight emissions pathway with these aspirations. The 2030 Agenda represents an imperative for profound and immediate changes in how energy is produced, transformed, traded, and consumed as the energy sector accounts for 60% of total global greenhouse gas emissions. To avoid exceeding the amount of carbon that can be emitted that is consistent with the objectives of the Paris Agreement and to set the stage for future reductions in atmospheric greenhouse gas concentrations, all options for reducing net carbon emissions must be developed and pursued urgently to reduce energy's net carbon intensity.

Goal 7:

Ensure access to affordable, reliable, sustainable and modern energy for all.

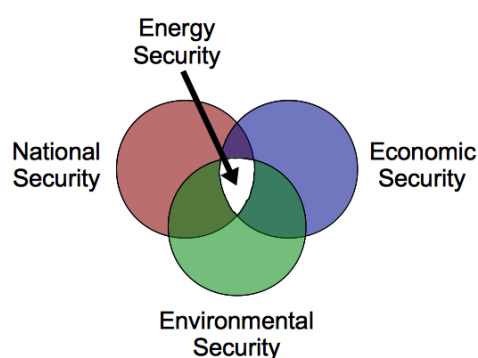


The rate of improvement in energy efficiency, the deployment of net low carbon energy solutions, and the provision of sustainable access to modern energy services are insufficient. Energy's contribution to the 2030 Agenda will falter in the absence of concrete measures to improve energy productivity, rationalize energy use, optimize energy resources, and deploy both new energy technologies and sustainable energy infrastructure.

Critical Issues Dominate the Energy Agenda

There is no common understanding of what sustainable energy is or how to attain it. Today's national energy strategies reflect divergent economic development, resource availability and energy mixes. Each country sets its national energy strategy based on its perspectives on sustainable development, environmental protection, revenue needs, poverty alleviation, climate change mitigation, quality of life, and the like. As a consequence, multiple approaches and outcomes can be found in national plans.

- Energy security concerns impede improvements in technical, environmental, and economic efficiency, often by promoting energy independence instead of more efficient enhanced integration of energy markets.
- Fossil fuels play a significant role in the energy mix. Even under a climate change scenario that meets the target of the Paris Agreement, fossil energy will still represent an important share



of the energy mix in 2050 and must be addressed whether through efficiency improvements or through appropriate emissions controls.

- Certain options for improving the overall performance of today's energy system are excluded for reasons of public perception, politics, imposed market distortions, or legitimate but possibly solvable concerns of health, safety and environment. Meeting the energy requirements of the 2030 Agenda and the Paris Agreement will require addressing the range of obstacles.
- Transforming the energy system will require a shift in policy and regulation to treat energy as a series of services rather than as a series of commodities, but the political, regulatory, and industrial infrastructure of energy is anchored firmly in today's commodity system. The transformation will need to respect the vital economic interests of producers, consumers, and financiers to be effective.

What needs to happen?

Reshape Policies to Stimulate the Transition to a Sustainable Energy System

The objectives of energy sustainability are attainable and need not contradict more short-term considerations if the world embarks on a determined, collective effort. Reinventing the energy system to one in which 1) a systems perspective shapes overall policy and 2) the transformation of energy from a series of commodities to a series of services will not be instantaneous and starts with the system that is in place today. Action by international organisations, national governments and regulators, civil society, and private sector investors can accelerate the needed transformation.



Energy markets should be reformed so that energy prices reflect full costs, including emissions, while eliminating market-distorting subsidies throughout the system. The use of energy subsidies could be attenuated by exploring more efficient and effective ways to protect vulnerable groups or to promote new technology. Policy-makers should work to enable a transition from an energy commodity industry to an energy services industry as a means of accelerating the technical, economic, and environmental efficiency of the energy system.

Energy market reform will not happen unless energy sustainability is assured. A full range of normative instruments such as standards and best practice guidance is needed throughout the energy system including development of regional and international norms covering interconnections, interoperability and trading. It will be important to maintain an open dialogue among energy-producing, -transit and -consuming countries on energy security, technology and policy. Achieving greater interconnectivity and mutually beneficial economic interdependence will require investment in energy infrastructure projects to enhance energy efficiency, integrate renewable energy, and optimize energy resource utilization. Encouraging interconnection infrastructure projects among countries with complementary energy resources is a cost-effective way to enhance mutual energy security and energy sustainability.

Energy efficiency in most countries needs to improve more quickly. Improving the efficiency of the economy's energy system is one of the most cost-effective options for delivering on the sustainable development goals, but much potential remains untapped. Significant potential for improving energy efficiency exists worldwide: policies that artificially lower energy prices encourage wasteful consumption; production and

consumption subsidies distort markets; housing stocks are poorly managed; land use management is inefficient; new participants face barriers to entry; there are inadequate norms and standards; and the statistics and information to manage energy use and track progress are incomplete. Also, there is often a lack of public awareness and education about the long-term economic and social benefits of action to improve energy efficiency and industrial productivity.

Equitable access to modern energy services requires mobilizing adequate resources. Ensuring physical and economic access to quality energy services requires investment throughout the energy value chain, from primary energy development to end use. Enabling investment requires that governments have a long-term vision for providing sustainable energy services, and that they promulgate sustainable policies and regulations that allow producers and consumers to respond to a dynamically changing energy market. Such a vision should be based on a total energy system perspective that includes provision of access to modern energy services for vulnerable groups. It also requires proper integration of the full slate of development goals (e.g., energy, gender, youth, and other vulnerable groups of people; the water-food-energy-ecosystems-health nexus).

Renewable energy policies need to be redesigned from a systems perspective. Renewable energy is becoming cost-competitive with conventional energy and has significant potential for further cost reductions. They offer a way to reduce the net carbon intensity of the energy sector, improve energy security, provide energy access economically in remote areas, and encourage economic development. For energy exporting countries, renewable energy can help meet growing domestic energy demand while supporting stronger fiscal and environmental sustainability. Enhancing integration of renewables into the energy mix will be important as future energy systems are optimized both on- and off-grid. However, wider uptake of renewables requires addressing barriers to fair competition vis-à-vis conventional energy technology (without resorting to subsidies), implementing stable long-term energy policy frameworks in a future energy system context, and deploying financial and risk mitigation mechanisms. New solutions are needed to deploy renewable energy in buildings, industry and transport.

Finance will be critical. The transformation of the energy system will involve mobilization of significant financial resources. It is also likely to alter the substantial financial flows emanating from today's energy system. It will be necessary to align investment incentives with the objectives of the 2030 agenda in order to improve investor confidence and incite transformational investment.

The future energy system will need new technology and new skills. Research and development and commercial introduction of new technology, capital, and management skills are essential to support the needed transitions. It will be important to extend international collaboration on research and development of new technology and exchange lessons learned about large-scale deployment of lower net carbon intensity energy sources.

Energy indicators for tomorrow. It will be vitally important to develop further appropriate indicators that show progress on energy for sustainable development in the context of the whole 2030 Agenda and its nexus challenges. Many countries need support to establish energy statistics programmes that monitor and report key energy production and consumption variables, and that are fully integrated into other economic and social national statistical efforts. It will be necessary to enhance international statistics on energy production, trade, and consumption patterns consistent with the desired future energy system and to strengthen the analytical capacity of the different interactions involving energy policy in order to provide innovative sustainable policy approaches to address multidisciplinary energy-related issues.

National and regional circumstances vary substantially. While each country will make its contribution to the 2030 Agenda and the Paris Agreement, there is no one-size-fits-all solution and each country will choose its approach optimally given its national circumstances.

Collaboration is essential. Countries are committed to implementing their respective nationally-determined contribution (NDC) to the Paris Agreement. There is significant value in international cooperation, strategic partnerships and functioning energy markets across regional corridors in the interest of all. Sharing experience and technology and encouraging cross-border investment will accelerate the transformation. Achieving the objectives will be facilitated by closer dialogue and collaboration among governments, the private sector, financiers, and civil society and among the various sectors that will interact to deliver on the 2030 Agenda.
