



# Economic and Social Council

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## Economic Commission for Europe

### Committee on Sustainable Energy

#### Twenty-fifth session

Geneva, 28–30 September 2016

Item 6 of the Provisional Agenda

#### International Fora on Energy for Sustainable Development and Energy Ministerial

### Draft outcome document of the Seventh International Forum on Energy for Sustainable Development

Proposal by the Governments of Azerbaijan and Kazakhstan to the Committee on Sustainable Energy to endorse the draft outcome document of the Seventh International Forum on Energy for Sustainable Development. This document is to be considered together with document ECE/ENERGY/2016/9, Concept note and draft outcome document of the Eighth International Forum on Energy for Sustainable Development and Energy Ministerial.

## I. Introduction

1. The International Forum on Energy for Sustainable Development, an annual event organized by the five United Nations Regional Commissions since 2010, has made major contributions to the global dialogue on sustainable energy. The Committee at its twenty-third session endorsed the intent of the Joint Statement of the Executive Secretaries of the United Nations Regional Commissions<sup>1</sup>, resulting from the Fifth International Forum on Energy for Sustainable Development.

2. At its twenty-fourth session, the Committee was informed of the outcomes of the Sixth International Forum on Energy for Sustainable Development<sup>2</sup>, (ECE/ENERGY/99, paras. 82 to 89). The Committee at this occasion welcomed and supported the offer by Kazakhstan to host a ministerial conference and the Eighth International Forum on Energy for Sustainable Development on 11 June 2017 in Astana in the framework of the EXPO 2017 “Future Energy” (ECE/ENERGY/99, paras. 86 and 89).

3. The Seventh International Forum on Energy for Sustainable Development will be held in Baku, Azerbaijan, on 18–21 October 2016. It is jointly organized by the Government of Azerbaijan, the United Nations Regional Commissions, the United Nations Industrial Development Organization (UNIDO), the United Nations Development Programme (UNDP) Office in Azerbaijan, the International Renewable Energy Agency

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<sup>1</sup> <http://www.unece.org/index.php?id=35706#/> or [http://www.unece.org/fileadmin/DAM/energy/se/pdfs/ee21/Forum\\_November\\_Tunisia/Joint\\_Statement\\_Fifth\\_International\\_Forum\\_Final\\_All.pdf](http://www.unece.org/fileadmin/DAM/energy/se/pdfs/ee21/Forum_November_Tunisia/Joint_Statement_Fifth_International_Forum_Final_All.pdf)

<sup>2</sup> <http://www.unece.org/index.php?id=39915#/>

(IRENA), the International Energy Agency (IEA), the Copenhagen Centre on Energy Efficiency (C2E2) and the Renewable Energy Policy Network for the 21<sup>st</sup> Century (REN21). The objective of the Forum is to explore how to deliver on the national commitments in support of achieving the climate change mitigation and adaptation goals outlined in Paris. Thus, the Seventh Forum provides an ideal occasion to discuss possible commitments to close the gaps of countries' aspirations and to solicit the recommendations of member States in support of the Eighth Forum and energy ministerial.

4. The expectation is that ministers participating in the energy ministerial at the Eighth Forum on 11 June 2017 will commit to concrete actions to accelerate achievement of the ambitious energy-related Sustainable Development Goals.

## **II. Consultation process and outcome documents**

5. The Governments of Azerbaijan and Kazakhstan would like to propose to the Committee on Sustainable Energy to endorse the draft outcome document of the Seventh International Forum on Energy for Sustainable Development, as attached to this document.

6. To facilitate an optimal input into the ministerial preparations for June 2017, the Governments of Azerbaijan and Kazakhstan would like to invite ECE member States to provide recommendations to the outcome document to be considered by the participants of the energy ministerial, as attached in the annex of this document, and to engage in a consultation process over the coming five months.

7. The Committee could then consider to endorse the resulting outcome document and preparations for the energy ministerial in a continued session of the twenty-fifth session of the Committee organized on 19 January 2017 in Geneva. The twenty-fifth session of the Committee would only be closed on that day with the formal approval of the report of the twenty-fifth session. If the Committee agrees to this proposal, the second part of the twenty-fifth session of the Committee will be reflected in document ECE/ENERGY/2016/11, Provisional calendar of meetings for 2017.

## **III. Timeline and next steps**

8. 28–30 September 2016: The Committee is invited to endorse the proposal for a consultation process with member States about the outcome document in preparation for an energy ministerial to be held at the auspices of the Eighth International Forum on Energy for Sustainable Development on 11 June 2017 in Astana, Kazakhstan.

9. October to December 2016: A web-based consultation process begins.

10. 18–21 October 2016: Seventh Forum on Energy for Sustainable Development in Baku, Azerbaijan. This meeting will bring together the five United Nations Regional Commissions with partners and will allow additional consultations to the proposed documents.

11. December 2016: Final drafting of the document to be endorsed by the Committee on Sustainable Energy in the second part of the twenty-fifth session.

12. 19 January 2017: Second part of the twenty-fifth session of the Committee on Sustainable Energy, final closure of the session with the adoption of the report by the Committee and potential endorsement of the ministerial outcome document.

13. April 2017: Sixty-seventh ECE Commission session for potential further endorsement of the Committee approved recommendations and outcome document.

14. 11 June 2017: Energy ministerial conference hosted by Kazakhstan in collaboration with partners.

15. 26–28 September 2017: Twenty-sixth session of the Committee on Sustainable Energy to report on progress made and present concrete action outcomes from the ministerial meeting.

## Annexes

### Annex I

#### **Call for action to achieve energy-related Sustainable Development Goals and contribute to the Paris Climate Agreement**

#### **For adoption at the 7th International Forum on Energy for Sustainable Development, Baku, Azerbaijan**

##### **I. Defining sustainable energy**

1. There is no common understanding of sustainable energy or of what could be an efficient pathway to a future sustainable energy system from the perspective of reducing the environmental footprint of the energy system and assuring needed energy for sustainable development. Divergent economic development, resource availability and energy mixes are embedded in national energy strategies. Each country sets its national energy strategy based, inter alia, on its perspectives on sustainable development, environmental protection, poverty alleviation, climate change mitigation and quality of life. As a consequence, multiple approaches and outcomes can be found.

2. If the world is to develop sustainably, it will be necessary to secure access to affordable, reliable, sustainable, and modern energy services while reducing greenhouse gas emissions and the carbon footprint of the energy sector. Achieving the sustainable development goals depends on transformation of the energy system. Notably, improving energy efficiency and energy productivity (particularly in buildings, industry and transport) are the easiest and most cost-effective ways to combat climate change, improve air quality, and reduce energy costs. A sustainable energy system will integrate environmental, economic and social aspects in line with national priorities and concerns. The 2030 Agenda requires countries to pursue concerted and accelerated action on sustainable energy in their national programs in order to reconcile the world's growing need for energy services with mitigating the impacts of energy resource development and use. To understand the full implications of the development imperatives, countries need to understand what has been agreed both in their own national contexts and from others' perspectives. Only then can different but equally effective development pathways be pursued efficiently and collaboratively.

3. The amount of CO<sub>2</sub> that can be emitted while keeping global temperature rises within 2°C, the so-called carbon budget, has been estimated at 1 trillion tons. If the ambition is to keep the temperature rise well below 2°C, then that budget is necessarily lower. Over half of the 2°C budget has been "spent", and at current emission levels the remainder will be spent within the next five years. This logic compels an imperative for profound and immediate changes in how energy is produced and consumed. The challenge is reconciling the tight 2°C emission pathway with development aspirations. To avoid overshooting the remainder of the carbon budget 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 the net carbon intensity of energy services.

4. There is a first gap between current actions taken by governments and the commitments they have made both to Agenda 2030 and in Paris, and a second gap between their commitments and the ambition of limiting temperature rises to well below 2°C. The rate of improvement in energy efficiency, the deployment of net low carbon energy solutions, the uptake of renewable energy and the provision of sustainable access to modern

energy services are insufficient. Energy's contribution to 2030 Agenda will falter in the absence of concrete measures to reduce energy intensities, rationalize energy use, optimize energy resources, deploy new energy technologies and sustainable energy infrastructure, and closely involve end-users and new generations to create the necessary behavioral change.

## **II. Pathways to Sustainable Energy**

5. Never has international cooperation been more important to enhance the understanding of sustainable energy and the choices available for achieving sustainable energy, to promote a policy dialogue, and to raise awareness of the different outcomes that could emerge over time. The Executive Secretaries of the five United Nations Regional Commissions have called on their Member States to accelerate the transition to a new, sustainable and fair energy system, tailored to both national policies and global needs in the 2030 Agenda context. This Call for Action is a request to Member States to commit to concrete measures in energy to support achieving the energy-related Sustainable Development Goals and contributing to the Paris Climate Agreement.

6. Participants at the Seventh International Forum on Energy for Sustainable Development in Baku, Azerbaijan in October 2016 request that all of the United Nations partners submit the attached draft Ministerial Declaration to their member States for consideration for adoption at the Ministerial Meeting organized in the context of the Eighth International Forum on Energy for Sustainable Development and the EXPO-2017 "Future Energy" that will take place on 11 June 2017 in Astana, Kazakhstan.

## **III. Call for Action with Concrete Commitments**

7. The actions called for in the Ministerial Declaration are commitments by countries to pursue coherent, holistic, coordinated, and integrated energy policies and to implement programmes that tackle global energy problems, thereby accelerating the transition to an affordable, reliable, sustainable and modern energy system.

8. The attached draft declaration notes the important role that the United Nations Regional Commissions, in close collaboration with the range of international partners, can play in helping countries implement their commitments. As noted in the preamble to the draft declaration, the state of the global economy and the economics of energy markets have prioritized short-term economic concerns, and geopolitics have moved energy security to the forefront of policy considerations. While sustainable development and better quality of life remain stated objectives, the costs of energy services are rising, and greenhouse gas emissions from the energy sector are increasing.

9. The actions called for in the document are designed to fill the identified gaps and accelerate the transition to a sustainable energy system through an agreed common agenda. The declaration seeks to build on previous outcomes and experiences and to propose potential solutions, as a major stepping stone in the history of this international fora process. In particular, it focuses on the need for an urgent and necessary paradigm shift in policy making and the way we produce and consume energy.

## Annex II

### [Draft 1] Ministerial Statement

1. We, the Energy Ministers of [countries], met in Astana, Kazakhstan on 11 June 2017, to explore how to accelerate the transition to a new, sustainable and fair 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 reduce greenhouse gas emissions from the energy sector if the world is to develop sustainably.

2. Recognizing that energy is at the core of the 2030 Agenda for Sustainable Development and the Paris Climate Agreement, we emphasize the following points:

- ***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 we promulgate sustainable policies and regulations that are based on rational economics and that allow producers and consumers to respond to a dynamically changing energy market. The vision includes provision of access to modern energy services for vulnerable groups as part of national poverty reduction strategies and social development policy.
- ***The net carbon intensity of the energy sector must be reduced.*** The amount of CO<sub>2</sub> that can be emitted in a scenario that keeps global temperature rises within 2°C, the so-called carbon budget, has been estimated at 1 trillion tons. If the ambition is to keep the temperature rise well below 2°C, then that budget is necessarily lower. Over half of the 2°C budget has already been “spent”, and CO<sub>2</sub> emissions from energy production, transformation, and use are at the heart of the challenge. In order to avoid overshooting the remainder of the carbon budget and in order to set the stage for future reductions in atmospheric greenhouse gas concentrations, it is imperative that all options for reducing net carbon emissions be developed and deployed urgently to reduce the carbon intensity of providing energy services.
- ***Energy efficiency needs to improve.*** Improving energy efficiency is one of the most cost-effective options for meeting growing energy demand, and it contributes to energy security, a better environment, improved quality of life, and economic well-being. Significant potential for improving energy efficiency exists worldwide, but attempts to improve energy efficiency often fall short because of flawed national policies that artificially lower energy prices that encourage wasteful consumption, that distort markets through production and consumption subsidies, and that manage housing stocks and land use ineffectively. New participants face barriers to entry, there are inadequate norms and standards, and the statistics and information to manage energy and track progress are incomplete. In addition, there is often a lack of awareness and education about the long-term economic and social benefits of action to improve energy efficiency and industrial productivity.
- ***Renewable energy policies need to be redesigned.*** Renewable energy resources are becoming cost-competitive with conventional resources. They offer a way to reduce the net carbon intensity of the energy sector, improve energy security, and encourage economic development. Integrating renewables into the global 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 technology (without resorting to long-term

subsidies), implementing stable long-term energy policy frameworks in a future energy system context, and deploying innovative and targeted financial mechanisms. Policies should be designed in light of the economic circumstances and development challenges of countries with renewable energy potential.

- *National and regional circumstances vary substantially.* While each country will make its contribution to both the 2030 Agenda and the Paris Climate Agreement, there is no one-size-fits-all solution and each country will choose its approach optimally given its national circumstances. We see significant value in international cooperation and functioning energy markets across regional corridors in the interest of all. We encourage the sharing of experiences and technologies to increase the uptake of successful technologies.

3. In light of the foregoing observations, we commit to the following actions to the extent they are relevant for our national circumstances:

#### **A. Access to Modern Energy**

4. Significantly accelerate the required energy transition while ensuring a high level of energy service reliability and equitable energy access.
5. Mobilize needed resources to provide universal access to modern energy services and ensure proper integration of other sectors and other development goals into our national energy plans.
6. Develop regional and international standards or other normative instruments throughout the energy system and share relevant information across areas with similar conditions.
7. Promote the use of quality-of-service regulation as a means of aligning the needs of suppliers and consumers of energy services and encourage the introduction of business models based on competitive companies offering sustainable energy services.
8. Develop well-functioning, resilient and interlinked energy markets with market-based pricing and with greater transparency, flexibility and liquidity.
9. Rationalize the use of energy subsidies by exploring efficient and effective ways to protect vulnerable groups and phase out inefficient energy subsidies that create market distortions and encourage wasteful consumption by 2025.

#### **B. Energy and Climate Change**

10. Implement strategic measures to develop energy systems that allow for sustainable economic growth alongside deep reductions in greenhouse gas emissions. Reduce systems costs with market reforms, normative instruments (such as standards), and business models that embrace demand responses, supply flexibility, emerging storage, energy efficiency, and efficient transmission and distribution.
11. Institute well-functioning carbon markets or other mechanism to establish a real price on carbon to promote low carbon growth.
12. Ensure policy parity among all low-carbon technologies, including renewables, clean fossil, and, to the extent countries wish to pursue the option, nuclear power.
13. Deploy clean energy technology and enhance research and development of innovative technologies. Encourage both sustainable development of untapped national resource potential and a transition from higher to lower carbon intensity thermal generation.

### **C. Energy and Resource Efficiency**

14. Reshape energy markets so that energy price signals and energy policies are aligned with sustainable deployment and use of energy resources.
15. Create structural, institutional and regulatory framework conditions that enable substantial investments in energy and resource efficiency throughout the energy value chain.
16. Explore ways for energy suppliers to sell energy services rather than energy products to accelerate energy efficiency uptake and promote the creation of strong energy services companies through public-private partnerships to implement large-scale energy efficiency programmes.
17. Enhance cross-sectoral urban planning to improve energy efficiency in cities, including housing, transport, water, and municipal utility infrastructure.
18. Establish technology-driven energy performance standards and pursue ever-tightening, enforced minimum energy performance standards in all sectors. Institute testing and labelling standards and procedures that meet recognized international requirements and that generate transparent information about them. Implement official energy efficiency labelling for mass consumer equipment.
19. Limit commercialization and sales of appliances and equipment that do not meet internationally agreed minimum standards by 2030.
20. Establish education programmes to train professionals in all economic sectors on ways to reduce energy use and provide information to the public with respect to energy efficiency and family budgets.

### **D. Energy Investment Framework Conditions**

21. Develop energy infrastructure, markets, and trading arrangements that are resilient in the face of natural or geopolitical disruptions, including through well-functioning and transparent markets, diversified energy fuels, sources and routes, enhanced energy efficiency, and enhanced price elasticities.
22. Facilitate investments for secure and sustainable energy, including innovative investment to encourage clean energy technologies, upstream investment, and quality infrastructure investment.
23. Maintain an open dialogue among energy-producing, -transit and -consuming countries on energy security, technology and policy on neutral platforms.
24. Promote regional connectivity of energy infrastructure projects to enhance energy efficiency, to integrate renewable energy, and to optimize energy resource utilization. Enhance efforts to make regional energy integration a reality. Encourage interconnection infrastructure projects among countries with complementary energy resources as a cost-effective way to enhance mutual energy security and stabilize energy systems.
25. Engage in dialogue with financial institutions to align investment incentives with the objectives of the sustainable development goals, including climate change. Create structural, institutional and regulatory framework conditions that enable investment throughout the value chain that reward efficient provision of energy services rather than use of energy resources.
26. Establish capacity building and qualification programmes for developers, engineers, technicians and workers involved in the design of bankable project proposals to be submitted to institutional, private investors, national and international financial institutions.

## **E. Technology**

27. Increase government investment in clean energy innovation, private sector engagement, and dissemination of advanced technologies to facilitate joint research and information sharing. Encourage collaboration among relevant research laboratories and institutes to promote the development of innovative clean energy technologies.

28. Launch and fund a green energy technology center in Astana to achieve the goals of the Clean Energy Ministerial Mission Innovation and like approaches to encourage technology development, promotion, transfer and capacity building towards a green economy.

29. Support research and development and the commercial introduction of clean energy technology, capital, and management skills to support needed transitions.

30. Encourage local manufacturing of energy efficient and cleaner energy equipment that contributes to cost-effective job creation.

31. Establish capacity building and qualification programmes for engineers, technicians and workers involved in the design and implementation of energy efficiency and cleaner energy solutions.

## **F. Energy Data, Indicators, and Analysis**

32. Collaborate with the United Nations regional commissions and other international partners to develop appropriate indicators of progress to the energy-related sustainable development goals, to build needed capacity to collect the sound data needed to populate the indicators, and to provide input systematically to track progress towards the aspirations of the 2030 Agenda and the Paris Climate Agreement.

33. Strengthen the analytical capacity of the different interactions involving energy policy, especially the water-energy nexus and the water-food-energy nexus, in order to provide innovative sustainable policy approaches to address multidisciplinary energy-related issues.

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