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## Economic Commission for Europe

### Committee on Sustainable Energy

#### Twenty-fifth session

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Item 6 of the Provisional Agenda

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

## Concept note and draft outcome document of the Eighth International Forum on Energy for Sustainable Development and Energy Ministerial

Proposal by the Governments of Azerbaijan and Kazakhstan to the Committee on Sustainable Energy to endorse the suggested concept for a ministerial conference held at the auspices of the Eighth International Forum on Energy for Sustainable Development and the process to lead to a ministerial outcome document. This document is to be seen in conjunction with document ECE/ENERGY/2016/8, Draft outcome document of the Seventh International Forum on Energy for Sustainable Development and its annexes.

### I. Introduction

1. 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) on 11 June 2017 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, kindly hosted by Kazakhstan in the framework of EXPO 2017 “Future Energy”.
2. 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 energy-related Sustainable Development Goals.
3. Member States of the United Nations Economic Commission for Europe (ECE) and the Committee have already been invited to engage in a process that could lead to an endorsed statement and outcome document in support of the ministerial meeting (ECE/ENERGY/2016/8).



4. This document provides background information about the approach to the energy ministerial and the Forum, and countries are invited to comment and endorse the suggested concept and to engage in a subsequent consultation process.

## II. Time and venue

5. The Eighth Forum will be held in Astana, Kazakhstan, on 11–14 June 2017. It will begin with a ministerial event with the title “Meeting the challenge of sustainable energy” on 11 June 2017, in the framework of the EXPO 2017 “Future Energy”. It is jointly organized by the Government of Kazakhstan and the United Nations Regional Commissions. Other organizations, including, but not limited to, the International Energy Agency (IEA), the International Energy Charter, the International Renewable Energy Agency (IRENA), the Organization of the Petroleum Exporting Countries (OPEC), the World Energy Council (WEC), and the United Nations Secretary General’s Sustainable Energy for All (SE4All) initiative will be approached to partner.

## III. Ambition and context

6. Following adoption of the 2030 Agenda for Sustainable Development by the United Nations General Assembly in September 2015, the United Nations and other international actors, countries and the private sector continue to explore how they can implement the Sustainable Development Goals and other aspirational pledges such as the Paris Agreement on climate change.

7. The new global sustainable development agenda requires countries to pursue concerted and accelerated action on energy in their national programmes in order to meet the challenge of sustainable energy. In order 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 the diverse development pathways be pursued efficiently.

8. The Eighth Forum provides the opportunity to reflect on the agreements and activities to date and further pursue a common agenda towards meeting the challenge. The objective of the Eighth Forum is therefore to build on the previous outcomes and experiences and to agree on potential solutions at an energy ministerial at the outset of the Eighth Forum, as a major stepping stone in the history of this international fora process.

9. The Fifth Forum on Energy for Sustainable Development<sup>1</sup> called for a deep long-term transition to a sustainable energy future, and the Sixth Forum on Energy for Sustainable Development<sup>2</sup> set out the following five concrete steps the United Nations Regional Commissions could take. The Seventh Forum on Energy for Sustainable Development<sup>3</sup> (the Seventh Forum) will aim to define the challenges ahead and develop a concrete roadmap for the international community to achieve common goals.

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<sup>1</sup> The Executive Secretaries of the UN Regional Commissions signed a joint statement (the Hammamet Declaration) in 2014, a call for action in which three key components were highlighted: a) Energy efficiency in most countries needs to improve more quickly; b) Renewable energy policies need to be redesigned; and c) Equitable access to modern energy services requires mobilizing adequate resources. See: [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> See: [http://www.unece.org/fileadmin/DAM/energy/se/pdfs/eneff/6th\\_Forum\\_Yerevan\\_Sept.2015/IFESD.6\\_Action.Plan\\_Joint.Statement.pdf](http://www.unece.org/fileadmin/DAM/energy/se/pdfs/eneff/6th_Forum_Yerevan_Sept.2015/IFESD.6_Action.Plan_Joint.Statement.pdf)

<sup>3</sup> Needs to be further defined and adapted after the Seventh Forum in October 2016 in Baku, Azerbaijan.

10. The Seventh Forum to be held in Baku on 18–21 October 2016 has been designed specially to explore the gaps between country actions and nationally determined contributions (NDCs) and between NDCs and the desired outcomes in order to explore how far away the world is from achieving the 2030 Agenda.

11. 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 the NDCs 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.

#### **IV. Objective of the energy ministerial conference**

12. 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 whereby a successful regional outcome is a composite of national choices?

13. 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 clean 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) Launch a “regional centre for development of green technologies and investment projects” under the United Nations umbrella.

14. The energy ministerial conference will offer the possibility to ministerial participants to share thoughts and experiences in plenary, followed by moderated roundtables on two key topics of their choice: 1. Understanding the challenges of sustainable energy, 2. Closing the gaps quickly, and 3. Making decisions in times of risk and uncertainty.

15. Ministers will be presented with a short document containing a number of concrete priority actions they are willing to make (see Annex I for a suggestion and also document ECE/ENERGY/2016/8, Annexes). Ministers will be requested to sign the document in a ceremony on stage, followed by a press conference and Q&A. The recommendations and solutions could further be integrated into a “Manifesto of Values of Expo 2017”, which is planned to consolidate proposals of private sector, governments, academia and environmental organizations, business-structures to create a new model of energy. It is hoped that the ministers will agree to become ambassadors for the key messages and recommendations at subsequent ministerial and high-level meetings that they will participate in, including, but not limited to, meetings organized by the IEA, the United Nations Framework Convention on Climate Change (UNFCCC), G20 etc.

#### **V. Topical focus of the energy ministerial**

16. The following themes represent a mere selection of topics based on the mandate of the sustainable energy subprogramme to support all technology options and market signals

to reduce the net carbon intensity of the energy sector. Discussions do not need to be limited to this selection. The Committee is invited to comment for an optimal and holistic approach of interest to all member States:

### **A. Understanding the challenge of sustainable energy**

- (a) Energy outlook and appropriate indicators – the trend, the gap, the challenge;
- (b) Energy balance and energy security;
- (c) The role of fossil fuels in future energy systems;
- (d) Impacts of oil price developments on achieving the energy related sustainable development goals;
- (e) Future sustainable energy systems and balancing markets;
- (f) Regional integration and cooperation, interconnectivity of systems in the region;
- (g) Regional specificities in reaching the energy-related sustainable development goals.

### **B. Closing the gap quickly**

- (a) Reducing the carbon intensity of the energy sector: Priority action areas;
- (b) The role of existing and new technologies and innovation to meet the SDGs;
  - (i) Enhancing energy efficiency and the uptake of energy efficiency saving measures;
  - (ii) Improving the efficiency of coal fired-power stations;
  - (iii) Promoting renewable energy within future energy systems;
  - (iv) Reinforcing synergies between renewable energy and gas;
  - (v) Methane management in extractive industries;
  - (vi) Carbon capture and storage;
- (c) National action plans and holistic energy policies;
- (d) Overcoming investment barriers in the region; infrastructure finance;
- (e) Enhancing market conditions, the right way to improve carbon intensities;
- (f) Water, food and energy nexus;
- (g) Human and institutional capacities for energy policy and technology development and implementation;
- (h) Improving country capacity for data availability, collection, interpretation, and transparency.

### **C. Making decisions in times of risk and uncertainty**

- (a) Choosing the right indicators;
- (b) Energy productivity: measuring and tracking progress;
- (c) Creating the conditions to make medium- und long-term decisions in times of risk and uncertainty;
- (d) Green finance mechanisms: trends and impacts;

- (e) Regional specificities in finance and investments.

## VI. Participants

17. The Forum will assemble up to 300 international energy experts, government officials, and representatives from the business community, financial sector, academia and civil society to share perspectives on how the Sustainable Development Goals can be implemented.

18. The private sector plays an important role in achieving the goals of sustainable development. Now, more than ever, there is a need for proper regulation, measurement and communication as part of a transparent sustainability reporting process to allow the private sector to contribute optimally to the current developments. The energy ministerial offers an international and neutral platform that brings public and private decision makers together to explore a concerted approach based on mutual strengths.

19. The Government of Kazakhstan and the Executive Secretary of ECE will invite all member States of the United Nations regional commissions and key organizations working in the pan-European region on the aspects of energy-related Sustainable Development Goals, including, but not limited to, the Governments of Brazil, China, India, the European Union, the countries of the Gulf Cooperation Council, the Organization of Economic Development (OECD), development banks, representatives from interested organizations, private, public, financial and academic institutions and all aforementioned partners (see para.5). The Committee is invited to encourage their national energy institutions and companies to participate and to propose participants.

## VII. Organization and format

20. The conference will be officially hosted by the Government of Kazakhstan. The Bureau will oversee the preparations. The Committee has been invited to engage in a consultation process.

21. The Eighth Forum will combine a ministerial meeting followed by a high-level plenary session with parallel workshops and site visits over four days. The energy ministerial conference will kick-off the Eighth Forum on 11 June 2017 and follow the official presidential opening of the EXPO 2017 “Future Energy” on 10 June 2017, which expects more than 5 million visitors over three months, more than 100 participating countries and international organizations and the private sector. EXPO 2017 “Future Energy” seeks to address global energy related challenges and presents therefore a unique opportunity for ministers to jointly discuss immediate solutions and quick fixes to global energy related challenges.

## VIII. Draft programme of the energy ministerial

22. The draft programme will be developed based on recommendations and reflections provided by ECE member States during the 25th session of the Committee on 28–30 September 2016. The final programme will be based on the topical focus areas developed under section V and will be presented to the Committee on 19 January 2017 for approval, if so desired by the Committee.

## IX. Timeline and next steps

23. **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.

24. **October to December 2016:** A web-based consultation process begins.
25. **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.
26. **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.
27. **19 January 2017:** Second part of the twenty-fifth session of the Committee on Sustainable Energy, closure of the session with the adoption of the report by the Committee and potential endorsement of the ministerial outcome document.
28. **April 2017:** Sixty-seventh ECE Commission session for potential further endorsement of the Committee approved recommendations and outcome document.
29. **11 June 2017:** Energy ministerial conference hosted by Kazakhstan in collaboration with partners.
30. **11–14 June 2017:** Eighth International Forum on Energy for Sustainable Development, Astana, Kazakhstan.
31. **10 June – 10 September 2017:** EXPO 2017 “Future Energy”, Astana, Kazakhstan.
32. **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.

## Annex

### [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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