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Economic Commission for Europe**Committee on Sustainable Energy****Group of Experts on Energy Efficiency****Group of Experts on Renewable Energy****Third session**

Baku, 18–19 October 2016

Item 3 of the Provisional Agenda

**International Forum on Energy for Sustainable
Development****Third session**

Baku, 20–21 October 2016

Item 3 of the Provisional Agenda

**International Forum on Energy for Sustainable
Development****Concept Note of the Seventh International Forum on Energy
for Sustainable Development****Note by Secretariat****I. Introduction**

1. 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 are exploring how they can implement the Sustainable Development Goals (SDGs) and other aspirational pledges such as the Paris Agreement on climate change. The sustainable development agenda requires countries to pursue concerted and accelerated action on energy in their national programmes. 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. The Seventh International Forum on Energy for Sustainable Development provides the opportunity to reflect on the challenges ahead and to agree on ambitious and concrete measures.

2. The objective of the Seventh Forum is therefore to explore how to deliver on the national commitments, such as the Intended Nationally Determined Contributions (INDCs, which would then become NDCs) in support of achieving the climate change mitigation

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and adaptation goals outlined in the Paris Agreement, including investment in renewable energy as a means of reducing the carbon intensity of the energy sector. The potential solutions to be agreed at an Energy Ministerial at the outset of the Eighth International Forum on Energy for Sustainable Development in Astana, Kazakhstan, on 11 June 2017, as a major stepping-stone in the history of this international fora process, will also be discussed in the framework of Baku Forum.

3. The Seventh International Forum on Energy for Sustainable Development will be held in Baku, Azerbaijan on 18–21 October 2016¹. It is jointly organized by the Government of Azerbaijan, the United Nations Regional Commissions, the International Energy Agency (IEA), the International Renewable Energy Agency (IRENA), the United Nations Development Programme (UNDP), the United Nations Industrial Development Organization (UNIDO), the Copenhagen Centre on Energy Efficiency (C2E2), and the Renewable Energy Policy Network for the 21st Century (REN21). The Seventh Forum will combine a high-level session with plenary sessions, parallel workshops and site visits over four days. 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 SDGs can be implemented. It will also include an International Renewable Energy Conference and the annual sessions of the United Nations Economic Commission for Europe (ECE) Group of Experts on Renewable Energy and Group of Experts on Energy Efficiency for the first time. Among the planned parallel workshops are the Seminar on Policy Reforms for Renewable Energy Investments, the Workshop on Promoting Energy Efficiency in Azerbaijan and Other Countries of the Region, the Workshop on Global Energy Efficiency Accelerator Platform, the Workshop on Energy Trade and Inter-grid Connectivity in Central Asia and the Caucasus, the Workshop on Pathways to Sustainable Energy, the SPECA (the United Nations Special Programme for the Economies of Central Asia) Thematic Working Group on Energy, Water and Environment, the Workshop on data quality and interpretation in the context of the Global Tracking Framework, and the Workshop on the Role of Strategic Environmental Assessment (SEA) in Renewable Energy Planning.

II. Ambition and Context

4. The Seventh Forum provides a unique opportunity to build upon the achievements of previous fora and develop a roadmap for what participants would like to achieve in the short- and medium-term with regards to the energy-related SDGs. Outcome documents from the previous two fora² in particular called for a deep long-term transition to a sustainable energy future and set out concrete steps the United Nations Regional Commissions could take:

- (a) Assist member States in developing national sustainable energy action plans;

¹ The International Forum on Energy for Sustainable Development, an annual event since 2010, has made major contributions to the global dialogue on implementing the Sustainable Energy for All (SE4All) initiative.

² See: http://www.unece.org/fileadmin/DAM/energy/se/pdfs/eneff/7th_Forum_Baku_Oct.2016/Joint_Statement_IFESD.5_2014.pdf and http://www.unece.org/fileadmin/DAM/energy/se/pdfs/eneff/7th_Forum_Baku_Oct.2016/Statement_of_CommonAction_IFESD.6_2015.pdf

- (b) Collaborate with member States to improve their national energy statistics programmes;
- (c) Provide capacity building to member States in the action areas outlined in the Hammamet Declaration: Energy Market Reform, Energy Efficiency, Renewable Energy, Energy Access, Energy Security, Finance and Investment, Technology, and Energy Data, Indicators and Analysis;
- (d) Encourage international dialogue for technological and knowledge exchange on lessons learned and best practices;
- (e) Develop internationally-recognized minimum energy performance standards in all sectors.

III. Reaching Sustainable Energy

5. Divergent economic development, resource availability and energy mixes are embedded in national energy strategies and reflect different priorities for how to achieve the overarching goals. Currently, there is no common understanding of sustainable energy or what can realistically mean by pathways towards a future sustainable energy system. The broadly varying conceptions of sustainable energy lead to diverse expressions in national and regional energy strategies and, as a consequence, multiple approaches and outcomes can be found. Some countries interpret sustainable energy to be shaped primarily by the need to reduce emissions of greenhouse gases and pursue a strategy based on renewables and end-use energy efficiency in the short-term, thereby excluding utilization of non-renewable resources. Other countries see sustainable energy as the need to develop natural resources effectively to address the much-needed access to energy component for their populations. Yet other countries prioritise the climate agenda, but choose to focus on reducing the carbon intensity of their energy system without excluding fossil energy.

6. As an enabler for achievement of all of the SDGs, sustainable energy combines environmental, economic and social aspects to ensure a sustainable future. Such a system notably would address all aspects of sustainable development in line with national priorities and concerns, including climate change and natural resource use, job creation and energy security, social tolerance, health and energy access, among others.

7. The fora on energy for sustainable development provide a unique opportunity to explore what sustainable energy means, both from the perspective of reducing the environmental footprint of energy and from the perspective of assuring needed energy for sustainable development and how to approach the energy-related SDGs optimally. The expectation is that ministers participating in the energy ministerial conference at the 2017 forum could commit to concrete actions to accelerate achievement of the ambitious global goals.

IV. Major topics of plenary sessions and parallel workshops

Topics of **plenary sessions and parallel workshops** will comprise:

Sustainable energy agenda

- Impacts of oil price developments on the sustainable energy agenda;
- Creating the conditions to make medium- and long-term decisions in times of risk and uncertainty;
- Future energy outlook and appropriate indicators;

- Energy productivity: Measuring and tracking progress;
- Future energy systems and balancing markets;
- Gaps between actions and INDCs and between INDCs and the desired outcomes.

Sustainable energy systems of the future

- The role of existing and new technologies and innovation to meet the SDGs;
- Overcoming investment barriers in the region; infrastructure finance ;
- Enhancing market conditions in the right way to improve carbon intensities;
- Smart integration of renewable energy;
- The role of fossil fuels in a future energy system;
- Water, food and energy nexus and connections with smart cities and transport.

National action plans

- National action plans and holistic energy policies;
- Linking energy and climate objectives in national actions;
- Human and institutional capacities for energy policy making and project development/implementation;
- Improving country capacity to gather reliable data and information on renewable energy state of development as well as tracking SDGs and INDCs ;
- The role of the United Nations regional commissions.

V. Background

8. The SE4All's Global Tracking Framework (GTF) report for 2015 indicates that overall progress from 2010 to 2012 falls well short of what is needed to attain the 2030 goals relating to energy access, energy efficiency and renewable energy. However, the 2010–12 tracking period showed some progress towards the objectives that provides optimism that these ambitious targets are achievable.

9. Climate change is one of the greatest challenges of our time, but it is also necessary to ensure access to energy for quality of life and for development. The transition to a sustainable energy system is an opportunity to improve energy efficiency from source to use, minimize environmental impacts, reduce energy and carbon intensities, and correct energy market failures.

10. Improving **energy efficiency** is an urgent priority as it allows producing more and better goods and services with fewer resources, and will deliver 40% of the emission reductions required to limit a global temperature increase to less than 2°C. Despite steady improvements in energy efficiency uptake, its impact remains largely unnoticed. The scope of the energy efficiency market is significant but far from sufficient in the current global energy and climate context. To realize the full benefits of energy efficiency and make it truly the “first fuel”, more political will and stronger leadership are needed.

11. **Renewable energy** contributes to sustainable development by reducing the carbon intensity of the energy sector while improving access to energy needed for development. Globally, there is growing awareness that increased deployment of renewable energy not only mitigates environmental concerns and climate change but can enhance energy security, create new economic and employment opportunities, contribute to diversification of

primary energy sources and provide energy access to those communities living without modern energy services, mainly in remote areas. The potential for developing renewable energy technology is growing and renewable energy is integrating progressively into the energy mix. Nevertheless, in many countries renewable energy policies do not work well and more can be done to develop suitable frameworks on how to “do renewable energy right” from a systems perspective.

12. **Energy systems.** Pathways to future energy systems must consider the value and quality of energy services rather than the volume of energy commodities. The world is witnessing a transition to new business models and new ways of doing business. New technologies and innovation are critical in making this happen, as are policies that support these developments. A change in the way the energy markets work is inevitable. Concerted efforts with targeted policies, programmes and incentives would accelerate the process.

13. **Access to modern energy services.** Access to modern clean energy services is a critical pre-condition for cooking and heating, lighting and communications, health and hygiene – in other words all of the basic needs of society. Institutional barriers combined with investment scarcity restrain energy access in all dimensions of the issue – providing physical access, ensuring affordability, and managing quality. It should also be noted that traditional measures of energy access that focus on grid connections do not capture broader, relevant perspectives of affordability, reliability and quality of service. There is an emerging multi-tiered approach being used in the GTF to measure access that captures these broader dimensions.

14. **Role of fossil fuels in a sustainable future.** Energy for sustainable development has to be looked at in a comprehensive and integrated manner that considers where current energy systems are today, where they should be in the medium- to long-term to meet sustainability and climate change goals, and how the world can transition to a sustainable energy future efficiently. A realistic and achievable outlook will recognize that improving energy efficiency and increasing the share of renewable energy in the global energy mix will be insufficient to ensure access to affordable, reliable, sustainable and modern energy for all. It is necessary to engage in a dialogue on the role of fossil fuels in the coming decades. By 2050 the share of fossil fuels in the global energy mix will be at least 40% even under a climate change scenario that meets a 2°C target. Finding solutions for the most effective use of fossil fuels with minimal possible environmental and climate change impact is crucial if the world is to meet its sustainable development and climate goals.
