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Item 6 of the Provisional Agenda

Outcome of the Second International Energy

Efficiency Forum and preparations for the

Third International Sustainable Energy

Forum

Eighteenth session

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Outcome of the Second International Energy Efficiency Forum and preparations for the Third International Sustainable Energy Forum

Background paper

Note by the secretariat

I. Introduction

1. This note outlines the outcome of the Second International Energy Efficiency Forum and the Workshop on Energy Efficiency Policy Frameworks and Investments in Energy Efficiency and Renewable Energy Projects held in Dushanbe, Tajikistan, 12–14 September 2011. The Workshop on Energy Efficiency Policy Frameworks and Investments in Energy Efficiency and Renewable Energy was included in the Work Plan for the Fourth Year of Project Operations (2011) of the Financing Energy Efficiency and Renewable Energy Investments for Climate Change Mitigation (FEEI) project (ECE/ENERGY/WP.4/GE.1/2011/3, para. 4). The Group of Experts on Energy Efficiency Investments for Climate Change Mitigation at its sixteenth session in Geneva in October 2010 supported the proposal to make the International Energy Efficiency Forum held in Astana in September 2010 a regular event (ECE/ENERGY/WP.4/GE.1/2010/7, para. 30 (o)).

2. The note also outlines the background, objectives and expected outcomes for the Third International Sustainable Energy Forum to be organized by the United Nations

Economic Commission for Europe (UNECE) Sustainable Energy Division in the framework of the UNECE Energy Efficiency 21 (EE21) Programme. Cooperation in organizing the Third Forum is anticipated with other UNECE Divisions, in particular, the UNECE Trade and Sustainable Land Management Division, Housing and Land Management Unit; other United Nations Regional Commissions (RCs), in particular UN Economic and Social Commission for Asia and the Pacific (ESCAP); and other United Nations system organization, in particular the United Nations Development Programme (UNDP), the United Nations Conference on Trade and Development (UNCTAD), and the United Nations Environment Programme (UNEP).

II. Outcome of the Second International Energy Efficiency Forum

3. The Second International Energy Efficiency Forum was held at the Ismaili Centre in Dushanbe, Tajikistan on 12–14 September 2011. The Forum was organized jointly by the Government of Tajikistan, the UNECE, the ESCAP with support from the UNDP. Over 100 participants from 25 countries attended the Forum. The UNECE projects contributing to the organization of the Forum included Financing Energy Efficiency and Renewable Energy Investments for Climate Change Mitigation (FEEI), Global Energy Efficiency 21 (GEE21), Mitigating Climate Change through Attracting Foreign Direct Investment in Advanced Fossil Fuel Technologies, and Development of the Renewable Energy Sector in the Russian Federation and in the Commonwealth of Independent States Countries: Prospects for Interregional Cooperation.

4. The Forum's objective was to contribute to sharing progress made in enhancing countries' policies and legislation for facilitating market formation in energy efficiency (EE) and renewable energy (RE), which resulted in the implementation of EE and RE projects, and in preparing commercially viable project proposals. International best practices in financing EE and RE projects and attracting investments to cleaner energy technologies were analyzed. Similar to the first IEEF, the geographical focus of the Second Forum was on countries of Northern and Central Asia, Eastern and South-Eastern Europe and the Caucasus. The participants discussed tools that enable stakeholders to formulate common vision and a set of strategies for EE and clean energy technologies promotion.

5. The opening session of the Forum featured addresses by Mr. Pulod Mukhiddinov, First Deputy Minister of the Ministry of Energy and Industry of Tajikistan, Mr. Scott Foster, Director of the UNECE Sustainable Energy Division, Mr. Hongpeng Liu, Chief of the Energy Security and Water Resources Section, ESCAP Environment and Development Division, and Mr. Alexander Zuev, UN Resident Coordinator and UNDP Resident Representative in Tajikistan. The session was followed by plenary sessions with presentations of high-level officials from the Government of Tajikistan, governments of other countries of the UNECE and ESCAP regions, representatives of the United Nations and other intergovernmental organizations, financial institutions, business sector and energy efficiency experts.

6. The second day of the Forum comprised two parallel workshops:

- Development of Energy Efficiency Policy Frameworks and Investments in Energy Efficiency and Renewable Energy Projects (in the framework of the FEEI project)
- Attracting Foreign Direct Investments (FDI) in Advanced Fossil Fuel Technologies (in the framework of the Mitigating Climate Change through Attracting Foreign Direct Investment in Advanced Fossil Fuel Technologies project)

7. On the third day, there was a roundtable discussion on Market Opportunities for Promotion of Energy Efficiency and Renewable Energy Projects in Central Asia. The

Government of Tajikistan organized a site visit to the Nurek Hydropower Plant for the Forum participants.

8. Based on the presentations and discussions at the Second International Energy Efficiency Forum its participants agreed on the following Conclusions:

- Sustainability requires that all three dimensions (environmental, social and economic) be considered by energy projects in an integrated fashion. Improving energy efficiency (EE) addresses all three concerns and is cost effective. Energy efficiency can and should be enhanced comprehensively in all economic sectors (industry, fuel and energy, housing and communal services, public buildings, agriculture, transport, waste management, etc.) and in synergy with countries' obligations under relevant international agreements, treaties and conventions.
- Although opportunities for renewable energy production and energy efficiency improvements abound, they nevertheless face numerous barriers, including legislative and regulatory, political, financial, social, technical and human capacity and awareness.
- Water resources are interlinked with energy development, and threats to water resources in Central Asia in the future could constrain the delivery of energy services. Transboundary disagreements prevent countries from making economically efficient decisions for use and sharing of energy and water resources, and there are vast opportunities for regional and sub-regional cooperation. Regional cooperation in both energy and water resources management would help the region overcome constraints in economic cooperation and energy security.
- EE strategy formulation and policy implementation require that there be strong political will and that resources be allocated to promote EE. Creation of targeted funds by governments, subsidized interest rates for loans, budgetary support at the household level, tax exemptions, and emission taxes are examples of such policies.
- Delegates reported on progress made in the policy frameworks to promote EE and RE investments in the countries represented at the Forum. In various countries the measure of progress includes increasing direct investments into EE and RE projects; economic incentives for energy saving; creation of frameworks for infrastructure renewal; performance monitoring; creation of institutional capacity for promotion of financing and implementation of EE and RE projects; promoting energy audits; setting minimum energy performance standards; and promoting use of green technologies in the private and public sectors.
- Further action is required to promote EE and RE investments, including: further development and enforcement of secondary legislation; enhancing institutional capacity in the field of EE and RES; raising public awareness, development and introduction of new and advanced support schemes, such as green certificates, white certificates, cost-effective approach etc.
- Implementation of EE and RE policies would benefit from experience-sharing between countries and regions and from capacity building.
- Case studies are useful tools for knowledge sharing: development of small hydropower plants in Tajikistan; the ENCON Fund in Thailand; the Green Technology Fund in Malaysia; the GEE21 Project; the En.lighten program; the co-benefit initiative in China.
- Renewable Energy Sources (RES) have vast potential and their cost-effective development should be pursued. However, RES face a number of challenges, as they remain significantly more expensive and there is a need for additional research and

development (R&D) and technological advances to make them more competitive with traditional energy sources. Targeted policies for their development are needed.

- Foreign Direct Investments (FDI) in RES depend on favourable policies in specific countries. Relevant policy reforms in transitional economies could improve prospects for investments in EE and RES.
- Appropriate pricing and taxation can support EE and RES development. Energy pricing is important for sending signals to both consumers and producers, and governments need to set up pricing mechanisms and developing appropriate policy frameworks to ensure proper signalling. Examples of the pricing structures in Thailand, Malaysia and China and their impact on energy consumption are worth analyzing for possible application in other countries.
- The Policy and Legislation Online Database to Promote Energy Efficiency and Clean Energy Technologies has been developed for countries of the Central Asian region and neighbouring countries.
- The database contains legal documents, strategies, action plans, technical regulations, standards and all other legal documents related to the development of energy sector, promotion of energy efficiency and renewable energy technologies. The database is a useful universal source of legal information and a unique tool for implementing comparative analysis of legislative systems of various Central Asian countries.
- The database could support decision-making process for investments in the clean energy sector in the region. A review of a national legislative system is an essential part of every risk assessment made by investors, and the database could assist in undertaking such review.
- It is important for the database to be complete and maintained up-to-date. The sustainability of the database should be further analyzed. Its capacity to be used for assessment of market potential of energy efficiency and renewable energy technologies in the region of Central Asia and beyond should be reviewed.
- Investments, including FDI, in advanced fossil fuel technologies are extremely important. They require long time horizons and a political and market vision, combined with a transparent, stable and consistent policy framework. Such a framework could include market solutions such as green certificates to attract investments in advanced fossil fuel technologies, in particular in technologies related to fossil fuel-fired electricity generation.
- FDI inflows to Central Asia are currently modest. They primarily focus on extraction of fossil fuels and other minerals. FDI in the electric generation sector are even lower (with the exception of Kazakhstan), due to risks inherent not only to the region but to the energy sector in general. Among the advanced fossil fuel technologies, integrated combined cycle natural gas-fired power plants are considered most attractive.
- In SPECA (UN Special Programme for the Economies of Central Asia) countries, growth in electric generation capacity has lagged behind growth in demand. The GEE21 project could contribute to help bridge this gap by improving the energy efficiency policy framework, particularly with respect to households.
- A proposal has been made to establish a group of experts on issues of energy saving, energy efficiency and development of renewable energy sources in the countries of Central Asia.

- The small hydropower sector is growing dynamically in the region but property laws and privatization issues need to be resolved to ensure its sustainability.

9. This Forum was a follow-up to the International Energy Efficiency Forum held in Astana, Kazakhstan on 28–30 September 2010. The participants of the Second International Energy Efficiency Forum expressed their appreciation to the Forum organizers and proposed that the Third International Energy Efficiency Forum be organized by UNECE and ESCAP in 2012. Participants expressed their view that the next Forum should focus more specifically on two or three topics related to clean energy, energy efficiency and renewable energy with a more in-depth and interactive analysis of these topics. The outcome of the Forum was reported at the side event Investments in Energy Efficiency and Renewable Energy: Ways to Make them Business-as-usual at the 7th Ministerial Conference "Environment for Europe" in Astana, Kazakhstan, 21–23 September 2011.

10. Presentations made at the Forum and other Forum materials are available at: <http://www.unece.org/index.php?id=25461>.

III. Preparations for the Third International Sustainable Energy Forum - Background

11. In the context of the FEEI project, the Third International Sustainable Energy Forum is a follow-up to the Seminars on Policy Reforms to Promote Energy Efficiency and Renewable Energy Investments held on 7–8 October 2009 and 20–22 October 2010 in Geneva, Switzerland, the Workshop on Case Studies on Overcoming Barriers to Investments in Energy Efficiency (EE) and Renewable Energy (RE) Projects through Policy Reforms held on 10–11 November 2009 in Kiev, Ukraine, and the International Energy Efficiency Forums held on 28–30 September 2010 in Astana, Kazakhstan and on 12–14 September 2011 in Dushanbe, Tajikistan.

12. In the context of the GEE21 project, the Forum will be a follow-up to the meetings of the Group of Experts on Global Energy Efficiency held on 10 June 2010 and on 18 April 2011 in Geneva and the International Energy Efficiency Forums in Astana in 2010 and in Dushanbe in 2011. The Forum would aim to incorporate the objectives of both the FEEI and GEE21 projects¹. Other projects of the EE21 Programme may contribute to the Forum.

13. 2012 has been declared by the UN General Assembly the Year of Sustainable Energy for All. The United Nations Conference on Sustainable Development (Rio+20) will be held in Rio de Janeiro in June 2012. At the Regional Preparatory Meeting for the United Nations Conference on Sustainable Development held in Geneva on 1-2 December 2011, the importance of energy efficiency, energy-efficient buildings and sustainable energy access for the poor, as well as of the security of energy supply was noted. Energy efficiency in buildings was singled out as having the potential to generate a large number of jobs and to engage local level stakeholders and the private sector. It was also noted that energy sustainability, affordability and security should be at the heart of the discussion about sustainable development. Government energy subsidies were viewed by some delegations as wasteful and needed to be replaced with market-based pricing that captured environmental costs, combined with income supports to address negative distributional

¹ The UNECE projects FEEI and GEE21 are carried out under the auspices of the UNECE Committee on Sustainable Energy by the Steering Committee of the Energy Efficiency 21 Project. As a sub-regional project of Energy Efficiency 21, the FEEI project is the direct responsibility of the Group of Experts on Energy Efficiency Investments for Climate Change Mitigation. As an interregional project of Energy Efficiency 21, the GEE21 project is the direct responsibility of the Group of Experts on Global Energy Efficiency 21.

impacts that might result from the removal of subsidies. Priority should be given to improving energy efficiency from source to use, to reducing the carbon intensity of the energy sector, including through the promotion of renewable energy, and to enabling the cost-effective development and deployment of sustainable energy technology (E/ECE/RPM/2011/2/Add.1). The Third International Sustainable Energy Forum thus has a potential to contribute to these goals in a concrete and productive way.

14. It is proposed that the geographic focus of the Forum, similar to that of the two previous Forums, is on Central Asia and its neighbouring regions. Tentative subtitle of the Forum is Capacity Building for Energy Efficiency and Clean Energy Development in Central Asia and Neighbouring Regions.

IV. Content and format of the Third Forum

15. The Forum will focus on the following topics:

(a) Current status, barriers and opportunities in promoting sustainable energy in Central Asia and neighbouring regions. The focus of discussion on this topic would be on policy reforms and role of the Governments/public sector in creating favourable environment for sustainable energy promotion;

(b) Energy efficiency (EE) in buildings and in housing sector: challenges, success cases and opportunities. Major contribution to the discussion on this topic will be provided by UNDP projects on EE in buildings in the countries of Central Asia and by the UNECE Housing and Land Management Unit;

(c) Investments in energy efficiency and clean energy: ways to finance EE and clean energy projects. International financial institutions (IFIs), commercial banks, and investment companies will be invited to contribute to this topic;

(d) Role of the private sector in promoting cleaner energy options in Central Asia and neighbouring regions. Major contribution to this discussion from private companies, including multinational companies is expected.

16. The proposed format of the Forum will be a combination of plenary sessions, roundtables and workshops with a possibility of a site visit. It is envisaged that the Forum will take place over three days. Plenary sessions and roundtables will be held on the first day. The second day will be allocated for thematic and project workshops. On the third day Subregional consultation meeting on preparation for Asia and the Pacific Energy Forum 2013 (APEF) and SPECA Project Working Group on Water and Energy Resources meeting will be held and a site visit will be organized.

V. Participation

17. The Forum will be open to relevant experts from governments, the private sector, financial institutions, international organizations, supporting institutions and other major players of the EE21 Programme and co-organizers of the Forum, as well as other stakeholders with an interest and experience in sustainable energy.

VI. Date and venue

18. The Forum is proposed to be organized in Kyrgyzstan. The Government of Kyrgyzstan has expressed its support for hosting the Forum. Tentative dates of the Forum are 11–13 September 2012.
