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Item 3 of the Provisional agenda

Recent developments of the Global Energy Efficiency 21 project

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Background paper

Note by the secretariat

I. Introduction

1. The structure of the Global Energy Efficiency 21 Project provides for cross-cutting objectives and activities that are largely implemented through subprojects in which the United Nations Economic Commission for Europe (UNECE) serves as the Executing Agency. In 2011 the secretariat undertook activities to secure funds for subprojects.
2. The project "Analysis of Advanced Technologies in Energy Efficiency and Renewable Energy in the Framework of the Global Energy Efficiency 21 Project and Preparation of Recommendations on its Application with Special Emphasis on Central Asian Region" is funded by the Government of the Russian Federation (implementation 2012–2013; USD 210,000).
3. The project "Promoting Energy Efficiency Investments for Climate Change Mitigation and Sustainable Development" is funded from the UN Development Account (implementation 2012–2014; USD 1,250,000 for 5 UN Regional Commissions).
4. "A Global Policy Advocacy Initiative to Accelerate the Deployment of Energy Efficiency" is a new initiative. Through UNECE leadership of GEE21,

the UN Foundation proposed the creation of energy efficiency policy forum at each of the five UN regional commissions to provide an environment and framework to enable policymakers from all UN member countries to accelerate deployment of energy efficiency on a regional basis. This initiative is envisioned as a 5-year, around \$15 million effort.

II. Analysis of advanced technologies in Energy Efficiency and Renewable Energy in the framework of the Global Energy Efficiency 21 project and preparation of recommendations on its application with special emphasis on Central Asian Region

1. Objective(s) and brief description of the project:

5. The project was proposed by delegation of the Russian Federation to the twenty-first session of the Steering Committee of the Energy Efficiency 21 Programme in June 2010 and approved by the UNECE Executive Committee in November 2011.

6. The primary objective of the project is to identify the most effective institutional, legal, financial, technical and other mechanisms to improve performance in energy efficiency and renewable energy, with an emphasis on the identification of appropriate EE and RE technologies for the Central Asian region.

7. The project will assist the Governments and other stakeholders in Central Asian region to overcome barriers and introduce advanced technologies in energy efficiency (EE) and renewable energy (RE) to support low-carbon economic and environmental sustainable development. In particular, the project will assess the performance of the countries in the region against the 25 best practice guidelines identified by the IEA at the 2005 Gleneagles summit, identify the fundamental reasons, if any, why they fall short of best practice, and make substantive recommendations on steps to be taken to meet best practice.

8. The project is also designed to explore how the experience of national and international energy efficiency and renewable energy programmes can be applied with the assistance of UNECE to the countries of the region - Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan - to improve their capacity to implement advanced EE and RE technologies under their national conditions.

2. Expected results/impact of the project:

9. The project will perform an analysis of existing world experience in development and application of advanced energy efficiency and renewable energy technologies. It will produce recommendations to improve capacity of Central Asian countries to implement policies and practices favouring technological capacity-building and strengthening technological capabilities on advanced energy efficiency and renewable energy technologies. It will also assist countries of the region in their efforts in developing common regional energy policy.

3. Proposed activities:

10. The following activities are proposed for the programme of work of the Project:

A1. Development of a regional network of national experts (Task Force) assigned by national institutions to this project, aimed at assisting Governments to develop capacities and to promote common energy efficiency and renewable energy policies and self-financing energy efficiency improvements in the countries.

A2. Convene inception meeting of experts/officials to exchange information and experience on energy efficiency and renewable energy policies. The objective of the meeting is to provide a fruitful exchange of views and then to make decisions related to the goals, methodologies, fields of responsibilities, scope of activities including data collection, terms and conditions and time-frame for implementation to complete the proposed national studies. This meeting should be the launch pad for the studies where all preparations will be completed and each national study might be fired up.

A3. Undertake five National Studies (one for each country) in order to:

- analyse the national policy frameworks, including tariff design, subsidies, and market structure, which constitute barriers to invest in energy efficient technology;
- consider policy challenges and suggestions for reforms;
- conduct assessment of the uses of energy in each sector of the economy with a focus on really the end users and not on the primary fuels or the transformation of energy;
- prioritize the most appropriate technologies for particular country. The assessment of these technologies would include not only the technical aspects, but also the economic aspects.

A4. Undertake a comprehensive, systematic and forward-looking Regional Study in order to:

- analyze the development and dissemination of advanced technologies in energy efficiency and renewable energy in the world in order to identify the most effective institutional, legal, financial and other mechanisms to encourage excellence in EE and RE, with an emphasis on the possibilities of implementing best practices in Central Asian region.
- prepare an inventory of technologies and technologies' applicability in targeted countries. It will be based on the findings derived from the five national studies. This inventory will provide the guidelines to experts and can be applied to the region to improve national capacity to implement advanced energy efficiency and renewable energy technologies under the specific national conditions.
- identify policy measures based on the consolidated set of IEA recommendations from G8 Summits, which covers 25 fields of action across seven priority areas: cross-sectoral activity, buildings; appliances; lighting; transport; industry and power utilities;
- conduct assessment of the performance of each country in the region to be based on the 25 best practice guidelines identified by the IEA at the 2005

Gleneagles summit and propose substantive recommendations on steps to be taken to meet best practice;

- analyze international cooperation in the Central Asian region and recommendations for policies harmonization in the field of energy efficiency and renewable energy development;

- develop regional plan of actions aimed at the possibilities of implementing best EE and RE practices in Central Asian region.

A5. Convene the regional meeting to consider the Regional Study as guidance for the national experts and publish it in Russian and English languages. The main objective of this meeting is the dissemination of conclusions and recommendations derived from the Regional Study to promote alternative future scenarios of common energy sector policies development taking into consideration sustainable energy development criteria and goals defined by country experts.

4. Budget

11. The project budget for the whole implementation cycle 2011-2013 is USD 210,000

III. Promoting Energy Efficiency Investments for Climate Change Mitigation and sustainable development

1. Objective(s) and brief description of the project:

12. The project proposal was developed by the UNECE Secretariat for submission to the UN Development Account. In December 2011 the proposal was approved by the UN General Assembly.

13. The objective of the project is capacity building for development of energy efficiency (EE) investment projects. It will assist UN Regional Commissions (RCs) to strengthen capacities of their member states to attract investments in energy efficiency projects in the context of climate change mitigation and sustainable development.

14. The project builds on the UN experience and recommendations in the area of sustainable energy development and follows the work undertaken under Global Energy Efficiency 21 project, the Financing Energy Efficiency Investments for Climate Change Mitigation (FEEL) project and other projects of the Energy Efficiency 21 (EE21) Programme. The proposed project will be led by the UNECE and jointly implemented with all United Nations Regional Commissions, the Department of Economic and Social Affairs (DESA) and national counterparts to strengthen their capabilities through a number of capacity building activities. While the project includes activities in policy reforms, the main focus will be capacity building for the development of energy efficiency investment projects.

2. Expected results/impact of the project:

15. The project will (a) develop the skills of the public and private sectors at the national level to identify develop and implement EE investment projects; (b) provide assistance to authorities to introduce regulatory and institutional reforms needed to support these investment projects; and (c) enhance financing of energy efficiency projects in selected countries.

The project will provide case studies on the experience of policy reforms, regional trainings, workshops and seminars focusing on policy reforms and investment projects development.

16. The outcomes of the project will be:

(a) Improved capacity of national project developers, energy experts and middle-level managers in developing countries and countries with economies in transition to develop energy efficiency investment projects in private and public sectors;

(b) Improved regulatory and institutional framework for promotion of new financing mechanisms for energy efficiency projects;

(c) Increased financing for investments in energy efficiency projects, including through innovative financing mechanisms.

3. Proposed activities:

17. The following activities are proposed for the programme of work of the Project:

A1. Five regional trainings (one course for each region) in project development, finance and business planning.

A2. Five regional workshops (one in each region) to analyze investment project pipeline (inventory of energy efficiency project proposals, see A5) and disseminate UNECE experience acquired in implementing the FEEI Project to stakeholders, including representatives from the business and banking sectors.

A3. Fifteen case studies on the experience of policy reforms in cooperation with national coordinators and national participating institutions in beneficiary countries to be discussed at five regional policy seminars.

A4. Five policy seminars focusing on policy reforms to promote financing of energy efficiency and renewable energy investments with the aim of strengthening the capacity of national and local policymakers in each region.

A5. Development of an investment project pipeline: inventory of energy efficiency project proposals, each of which contains standard presentation of energy efficiency investment project, with details of the total cost of the project, investment requirements, projected internal rates of return and carbon dioxide emission reductions for submission to domestic and international investors, banks, investment funds, and other financial institutions in beneficiary countries.

A6. One end-of-the-project global workshop to bring together officials from the regions along with major domestic and foreign investors to encourage greater investment flows into the EE projects.

4. Budget:

18. The project budget for the whole implementation cycle 2012-2014 is USD 1,250,000, distributed between the Executing Agencies as follows:

UNECE - USD 428,400

SCAP - 200,400

ECA - 200,400

ESCWA - 200,400

ECLAC - 200,400

DESA - 20,000

IV. A global policy advocacy initiative to accelerate the deployment of Energy Efficiency

1. Initiative background

19. The UN Foundation supports the UN to engage its member states to solve chronic global problems, such as improving health, empowering women, and mitigating global climate change through clean energy solutions that will accelerate economic development and enhance collective energy security. In partnership with UN-Energy, a coalition of the 20 UN agencies engaged in clean energy deployment, and a range of other international institutions, we advocate the need to accelerate the global deployment of energy efficiency.

2. Objective

20. The general objective of this project is to accelerate the uptake of energy efficiency investments. This objective will be reached by identifying collaborative energy efficiency strategies, harmonizing policy frameworks on promotion of energy efficiency, and reviewing the structure and contents of the energy efficiency policies, legislative framework and strategies.

21. The immediate objectives of the current proposal are to (i) assess the energy efficiency policies and market development in the various UN regional commissions and (ii) recommend instruments for implementation to scale up energy efficiency development.

3. Expected accomplishments:

22. The expected accomplishments of the Initiative are:

- Establishment of Regional Energy Efficiency Forums (REEF) for the development of country-based regional policies operating under the umbrella of RCs;
- Establishment of an interregional collaborative sustainable network among national and international energy officials to promote energy efficiency policies and technical issues;

- Implementation of recommendations, policies and practices favouring EE policy promotion and strengthening technological capabilities.

4. Proposed activities:

23. The following activities are anticipated:

- Assess policies and legislative frameworks for energy efficiency that are in place or under development along with relevant case studies of best practices;
- Assess gaps in policy/legal frameworks at national and subregional levels (gaps between the countries and gaps between the policy and framework legislation and by-laws and sector specific legislation);
- Assess the potential for policy and legislation harmonization;
- Identify policy and regulatory barriers to large scale energy efficiency financing;
- Identify areas where policy and regulatory environment can be improved;
- Discuss the role of technical standards and regulations and labeling programmes in the development and promotion of energy efficiency and share relevant experiences;
- Discuss opportunities for and challenges to inter-regional cooperation including energy efficiency market formation and development and technology transfer;
- Identify a scope for potential cooperation between the regions, including technology transfer, market development, information sharing and capacity building;
- Discuss the challenges that exist in the regions in promoting energy efficiency, in particular on issues relevant to energy economics;
- Identify how data and studies can contribute to establishing the baseline and understanding the gaps, and facilitate further steps for energy efficiency promotion;
- Obtain national perspectives in REEFs to ensure that the studies and the outcomes are relevant to the member states; identify sectors with the greatest energy saving potential;
- Explore opportunities for partnerships with the relevant stakeholders in the field of policy and regulations harmonization;
- Establish a network of national energy efficiency supervision and monitoring institutions for the proposed support to strengthen the enforcement capability of energy efficiency laws and regulations;
- Within the framework of GEE21, support development of the regional EE21 projects to develop a framework for a global strategy on energy efficiency and market transformation;
- Organize regional training workshops on energy efficiency for national experts from energy, finance and planning ministries. The workshops

will cover policy, institutional framework, financing, legal and contractual aspects of energy efficiency market formation;

- Develop training modules on the economic, and policy aspects of energy efficiency, which will be also made available online electronic knowledge base;
- Promote exchanges of experts from the national and international institutions to encourage the exchanges of information, experiences, and expertise on energy efficiency policies;
- Convening a working group under each UN RCs, with the support from UNECE, to begin elaborating model policy guidelines and institutional and regulatory provisions to support the establishment of regional strategies on energy efficiency market formation;
- Mainstream energy efficiency policies into national core development areas, including energy, agriculture, water resources and infrastructure, emphasizing that energy efficiency is a core economic concern;
- Provide technical assistance to strengthen national institutions in the collection of data for planning and analysis related to energy efficiency policies.

5. Budget and operation structure

24. This initiative is envisioned as a 5-year, \$15 million effort.

25. The UN Foundation would assume overall financial and policy governance to ensure program partners aggressively implement a quality programme of work.

26. UNECE will be the lead UN agency and will operationally manage and coordinate the efforts of the other four regional commissions, in addition to maintaining its own regional policy forum.

27. UNECE will initially assess the energy efficiency policy capacity and market development environment in each of the five regions and commissions and recommend roadmap and structure for regional forum implementation.