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ECONOMIC COMMISSION FOR EUROPE

COMMITTEE ON SUSTAINABLE ENERGY

Steering Committee of the Energy Efficiency 21 Project

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Item 3 of the provisional agenda

**DEVELOPMENT OF THE RENEWABLE ENERGY SECTOR IN THE RUSSIAN
FEDERATION AND IN COUNTRIES OF THE COMMONWEALTH OF
INDEPENDENT STATES (CIS): PROSPECTS FOR INTERREGIONAL
COOPERATION**

Note by the secretariat

I. MANDATE

1. In November 2008, the ECE Committee on Sustainable Energy mandated (ECE/ENERGY/78) the Development of the Renewable Energy Sector in the Russian Federation and in CIS Countries project to transfer the experience of the participating countries as well as explore prospects for interregional cooperation in renewable energy sector.

II. BACKGROUND

2. The Russian Federation and countries of the Commonwealth of Independent States (CIS)¹ are endowed with very significant renewable energy resources. The current contribution of solar, tide, wind, hydro, geothermal, hydro and bio-fuels is less than five per cent of total primary energy consumption. But they have a large, diverse and unrealised potential that could have important benefits for the environment, energy security and the economy if a wide range of barriers to the deployment of renewable energy technologies can be overcome resulting in a

¹ Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russian Federation, Tajikistan, Turkmenistan, Uzbekistan and Ukraine.
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more favourable investment climate. Interregional cooperation can contribute greatly to overcoming these obstacles since many of the opportunities and constraints for the future development of renewable energy resources are common between the CIS member states.

3. The size and geographical diversity of the CIS countries provides natural advantages for exploiting renewable energy resources. The compatible electric power systems throughout the CIS allows for the transfer of power across the region. It would provide for the location of renewable energy projects such as wind farms in remote resource rich areas and transmitting electric power to population centres. For example, the European Bank (EBRD) estimates that the Russian Federation has an excellent potential for wind power generation. One quarter of its total potential would provide some 175,000 MW of power from sites along seacoasts, the steppes and mountains. Despite this potential, the CIS represents less than one per cent of global installed wind power according to the United Nations Development Programme (UNDP) World Energy Assessment.

4. The prospects for other renewable are also very promising. The hydro potential in the Russian Federation alone represents 9 per cent of world hydro resources. This represents some twenty one per cent of total electric power generating capacity in the Russian Federation. The potential for geothermal energy in Russia is also very high rated at more than 3000 MWe while geothermal accounts for some 200 MWe at present ranking Russia among the highest users of this energy source.

5. A number of renewable energy technologies are considered to be competitive now to provide electric power to national grid systems according to the International Energy Agency including hydro, biomass, geothermal and large scale wind. At the same time, more than ten million people in CIS countries are not connected to electric power grids and currently use small scale gasoline or diesel generators which are expensive and unreliable. Off-grid electricity could be reasonably provided with wind-diesel systems, biomass-fired steam boilers and small hydro.

6. Despite this potential, the deployment of renewable energy technologies is hindered by, inter alia, lack of political, legislative and regulatory support; energy prices that do not reflect the costs of production; low electric power and heat tariffs; lack of information for decision makers; and a preference for centralized energy supplies that all contribute to an inadequate investment climate for renewable energy technologies.

7. Nevertheless, the Russian Federation is seeking to promote energy efficiency and renewable energy resources through the Energy Strategy to 2020, the Federal Programme for an Energy Efficiency Economy, Renewable Energy Laws, bilateral cooperation and multilateral programmes such as the Group of Eight G8 Summit commitments, the United Nations and the UNFCCC Kyoto Protocol. Most of the CIS countries are promoting energy efficiency and renewable energy technologies through national programmes and international cooperation.

III. OBJECTIVE

8. The objective of the project is to promote interregional cooperation to overcome energy policy, regulatory, institutional and financial barriers to the development of renewable energy resources in the Russian Federation and CIS countries.

IV. EXPECTED ACCOMPLISHMENTS

9 The first expected accomplishment is to increase the capacity of national and regional experts to identify and adopt measures to overcome barriers to the development of renewable energy resources.

10. The second is to enhance investment climate for deployment of renewable energy technologies in the Russian Federation and CIS countries.

V. MAIN ACTIVITIES

11. The project is implementing specific activities to:

(a) establish a network of national and regional experts responsible for promoting renewable energy technologies in the Russian Federation and interested CIS countries;

(b) analyse the energy policy, regulatory, institutional and financial barriers to the development of renewable energy resources in participating countries;

(c) identify, compare and contrast measures adopted in participating countries to overcome barriers to the deployment of renewable energy technologies;

(d) prepare a strategy to promote an enhanced investment climate for renewable energy technologies for dissemination to national and regional authorities in participating countries

VI. BUDGET

12. The project budget for the whole implementation cycle 2008-2010 is USD 150,000 and the funding requested for 2008 is USD 50,000. Co-financing for the project will be explored with the supporting institutions of government departments, international organizations and public and private sector companies currently financing ECE projects on energy security and energy efficiency.

13. ECE will provide an 'in kind' contribution of project counterparts in staff time, documents preparation and distribution, publications and conference services. The 'in kind' contributions are also expected from related ECE intergovernmental bodies notably the Committee on Sustainable Energy and the Energy Efficiency 21 Project.

ANNEX**Project Work Plan**

| Expected accomplishment (EA) | Main activity | Timeframe by activity | | |
|--|---|------------------------------|-------------|-------------|
| | | 2008 | 2009 | 2010 |
| EA 1: Increased capacity of national and regional experts to identify and adopt measures to overcome barriers to the development of renewable energy resources | A1.1 Establish a network of national and regional experts responsible for promoting renewable energy technologies in the Russian Federation and interested CIS countries | x | x | |
| | A1.2 Analyse the energy policy, regulatory, institutional and financial barriers to the development of renewable energy resources in participating countries | x | x | |
| EA 2: An enhanced investment climate for deployment of renewable energy technologies in the Russian Federation and CIS countries | A2.1 Identify, compare and contrast measures adopted in participating countries to overcome barriers to the deployment of renewable energy technologies | x | x | |
| | A2.2 Prepare a strategy to promote an enhanced investment climate for renewable energy technologies for dissemination to national and regional authorities in participating countries | | x | x |
