



Economic Commission for Europe

Renewable Energy in the Russian Federation and CIS Countries

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Geneva, 11 June 2010

Renewable Energy Sources

- Biomass, Bio-fuels
- Hydropower
- Geothermal
- Wind
- Solar Power & Solar Heat

Rationale for Renewable Energy

- Multiple advantages :
 - contributes to energy efficiency,
 - contributes to climate change mitigation
 - evenly distributed, contributes to local economic development,
 - transmission problem mitigation
 - dual-benefit solutions to waste problem

UNECE Long-Term Objective

Development of Renewable Energy in the Russian Federation and CIS Countries:

Promote interregional cooperation to overcome energy policy, regulatory, institutional and financial barriers to the development of renewable energy resources in participating countries

Renewable Energy Sources in ECE

- Renewables 5% Total Primary Energy
- Biomass & Hydro 85% Total Renewables
- Main market: Biomass, Hydro, Geothermal, Wind & Solar
- Large potential Biomass, Wind & Solar
- Limited scope: Hydro & Geothermal

Renewable Energy Sources in CIS

Potential Contribution

- Biomass, Bio-fuels – 20 Mtoe
- Hydropower – 10 Mtoe
- Geothermal – 12 Mtoe
- Wind – 15 Mtoe
- Solar – 6 Mtoe

Renewable Energy Market in CIS

Hydropower Share in Renewables

- Azerbaijan – 17%
- Armenia – 12 %
- Kazakhstan – 13%
- Kyrgyzstan – 78%
- Moldova – 6 %
- Russian Federation – 22%
- Tajikistan – 78%
- Ukraine – 8 %
- Uzbekistan – 16%

Renewable Energy Market in CIS

Market Drivers

- Rising costs energy imports
- Decreasing costs renewable technology
- Technology performance
- Energy security
- Greenhouse Gas Reductions

Competition for Renewables

- Energy exporting countries: Azerbaijan, Kazakhstan, Russian Federation, Turkmenistan, Uzbekistan
- Nuclear generation: Armenia, Kazakhstan, Russian Federation, Ukraine

Renewable Energy Barriers in CIS

Barriers to Renewables Development

- Absence of national strategy & policy
- Lack of political & regulatory support
- Existing polices not enforced
- Low energy prices & tariff changes
- Strong competition conventional sources
- Lack of economic incentives
- Electric power grid access not guaranteed
- Political risk considerations
- Unfavourable project risk profile
- Inadequate returns for project finance

Renewable Energy Reforms

Reforms to Promote Renewables

- Policy maker seminars & information
- National renewable energy strategy
- Energy laws renewable market structure
- Legislation on grid access, tariffs
- Government support mechanisms
- National renewable energy targets
- Government renewable energy agencies
- Financing and tax incentives
- Dedicated Investment Funds

UNECE Renewable Energy Project

Development of the Renewable Energy Sector in the Russian Federation and in CIS Countries : Prospects for Interregional Cooperation

Countries

Azerbaijan, Armenia, Belarus, Kazakhstan, Kyrgyzstan,
Moldova, Russian Federation, Tajikistan, Turkmenistan,
Uzbekistan and Ukraine

UNECE Renewable Energy Project

Activities

- Establish network national & regional experts
- Analyse energy policy, regulatory, institutional & financial barriers
- Identify, compare & contract measures to overcome barriers in participating countries
- Strategy to promote enhanced investment climate

Expected Accomplishments

- Increased national capacity to identify and adopt measures to overcome barriers to renewable energy
- Enhanced investment climate for the development of renewable energy sources

Project implementation

- National experts from 10 of the participating countries (out of 11 eligible to the project) have been nominated.
- A network of regional renewable energy experts has been established with the participation of the International Energy Agency and the Renewable Energy and Policy Network for the 21st Century.

Project implementation

- 8 final national reports and 1 draft report prepared by National Experts covering:
 - analyses of the energy policy,
 - regulatory, institutional and financial barriers to the sector's development and
 - possible measures to address the main challenges in their countries.
- National Experts presented their contribution on the status of the renewable energy sector in their countries during 2 meetings organized by the secretariat in Geneva (4 June 2010) and Moscow (10 October 2010).

Project implementation

- The draft Terms of Reference (TOR) for the Report on the Strategy to Promote an Enhanced Investment Climate
- The revised TOR for the Report was disseminated to the relevant Ministries in the participating countries
- 5 proposals received from: Armenia, Kazakhstan, Ukraine, Tajikistan and The Russian Federation

Project implementation

- Following the criteria for the selection of the Energy Research Institution based on the TOR, the Grant Recipient was selected:
- **International Sustainable Energy Development Centre (ISED)** under auspices of UNESCO, Moscow, The Russian Federation.
- The funds (US\$ 30.000) will be made available to the ISED through a UNECE grant procedure

Next steps

- Signing Memorandum of Understanding (MoU) with ISEDC- June 2010
- Last 2 National Reports completed – June 2010
- National Reports from 10 participating countries transmitted to ISEDC – June 2010
- Launch Strategy Report – July 2010
- First National Workshop on RES in Minsk - 22-23 July 2010

Next steps

- Presentation outlines of the Report - August 2010
- Submission of the first draft Report - September 2010
- Second National Workshop on RES –Geneva November 2010
- Presentation final draft Report to 19th session of the Committee on Sustainable Energy- November 2010
- Submission of the final Report - December 2010

Further Information

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Thank you for your attention!