



Economic Commission for Europe

Renewable Energy in the Russian Federation and CIS Countries

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Renewable Energy Sources

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

Rationale for Renewable Energy

- **Multiple advantages :**
 - energy efficiency
 - climate change mitigation
 - 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 %
- Belarus – 0,1%
- Kazakhstan – 13%
- Kyrgyzstan – 78%
- Moldova – 6 %
- Russian Federation – 22%
- Tajikistan – 78%
- Ukraine – 8 %
- Uzbekistan – 16%

Renewable Energy Market in CIS

Market Drivers

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

Renewable Energy Market in CIS

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 policies not enforced
- Low energy prices & tariff changes
- Strong competition conventional sources

Renewable Energy Barriers in CIS

Barriers to Renewables Development (cont.)

- 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

Renewable Energy Reforms

Reforms to Promote Renewables (cont.)

- 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

UNECE Renewable Energy Project

Accomplishments

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

Project Implementation

- National experts from 10 of the participating countries
- Established network of regional RE experts
- 10 final national reports prepared:
 - analyses of the energy policy,
 - regulatory, institutional and financial barriers
 - possible measures to address the main challenges

Project Implementation (cont.)

- 2 previous project meetings on RE
 - Geneva (June 2009)
 - Moscow (October 2009)
- National Experts presented their contribution on the status of the RE sector in their countries
- Terms of Reference (TOR) draft for Report on the Strategy to Promote RE circulated to participating countries

Project Implementation (cont.)

- Revised TOR disseminated to relevant Ministries
- Nomination of an Energy Research Institution to prepare the Report
- 5 Proposals received (Armenia, Kazakhstan, Ukraine, Tajikistan and The Russian Federation).

Project Implementation (cont.)

- Grant Recipient selected:
International Sustainable Energy Development Centre (ISEDC)
under auspices of UNESCO,
Moscow, The Russian Federation.
- US \$30.000 for ISEDC through UNECE grant procedure
- ECE signed MoU with ISEDC in July 2010

NEXT STEPS

- Last National Reports completed in July 2010
- National Reports from 10 participating countries transmitted to ISEDC in July 2010
- Launch Strategy Report in July 2010
- First National Workshop on RES in Minsk, 22-23 July 2010
- Presentation outlines of Report in July 2010

NEXT STEPS (cont.)

- Submission of the first draft Report in July 2010
- Submission of the second draft Report in October 2010
- Second National Workshop on RES – Geneva
November 2010
- Presentation final draft Report - 19th session of the
Committee on Sustainable Energy November 2010
- Submission of the final Report December 2010



Thank you for your attention

For more information please contact:

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