



## Second International Energy Efficiency Forum

Dushanbe, Tajikistan

12 – 14 September 2011

### Summary

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 United Nations Economic Commission for Europe (UNECE) and the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). Over 100 participants from 25 countries attended the Forum.

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.

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
- Attracting Foreign Direct Investments (FDI) in Advanced Fossil Fuel Technologies

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

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 signaling. 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 neighboring 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.

This Forum was a follow-up to the International Energy Efficiency Forum held in Astana, Kazakhstan on 28-30 September 2010<sup>1</sup>. 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. 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.

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

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<sup>1</sup> [http://www.unece.org/energy/se/docs/eneff\\_AstanaEEForum\\_Sept10.html](http://www.unece.org/energy/se/docs/eneff_AstanaEEForum_Sept10.html)