



### **Promoting Energy Efficiency and Renewable Energy** in the UNECE Region

**Viktor Badaker Oleg Dzioubinski UNECE Sustainable Energy Division** 

Interregional Workshop and Study Tour on Energy Efficiency and Renewable Energy Projects and Policies Israel, 8-12 February 2015



































### **Energy Efficiency and Renewable Energy in the Work of UNECE Sustainable Energy Division**

### **Group of Experts on Energy Efficiency**

- (a) Regulatory and policy dialogue addressing financial, technical and policy barriers to improve energy efficiency
- (b) Sharing experience and best practices in the field of energy efficiency in the United Nations **Economic Commission for Europe (ECE) region, including on strengthening institutional** capacity in energy efficiency to reduce greenhouse gas emissions

#### **Concrete Activities**

- Identification of the state of development of energy efficiency in the ECE region
- Exchange of know-how and best practices in ECE on how to significantly improve energy efficiency in the ECE region
- Share experience on smart grids and other advanced transmission and distribution technologies































### **Energy Efficiency and Renewable Energy in the Work of UNECE Sustainable Energy Division**

### **Group of Experts on Renewable Energy**

- Regulatory and policy dialogue
- Sharing of best practices on various renewable energy sources, including biomass, with a view to increasing the share of renewables in the global energy mix

### **Activities**

- Identification of the state of development of renewable energy sources in the United Nations **Economic Commission for Europe region**
- Identification and support to those communities in the United Nations Economic Commission for Europe region that have no access to energy
- Exchange of know-how and best practices in the United Nations Economic Commission for Europe region on how to help significantly increase the uptake of renewable energy































### **UN Development Account Project**

## Promoting Energy Efficiency Investments for Climate Change Mitigation and Sustainable Development (2012-2014)

Implemented by five UN Regional Commissions (UNECE – lead agency)

### **Objective**

• Capacity building for development of EE investment projects. Assisting UN RCs to strengthen capacities of their member states to attract investments in EE projects in the context of climate change mitigation and sustainable development

### **Expected accomplishments**

- 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































### **UN Development Account Project** (cont.)

**Promoting Energy Efficiency Investments for Climate Change Mitigation and Sustainable Development (2012-2014)** 

#### Main activities

- *Five regional trainings* in project development, finance and business planning
- **Development of an investment project pipeline** (inventory of energy efficiency project proposals)
- *Five regional workshops* to analyze investment project pipeline
- *Fifteen case studies* on the experience of policy reforms
- *Five policy seminars* focusing on policy reforms to promote financing of energy efficiency investments
- **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

































**Fourth International Forum: Energy for Sustainable Development** (Tbilisi, Georgia, 17-19 September 2013). Workshop on Case Studies on Policy Reforms to Promote Financing Energy Efficiency Investments and Advanced Energy Efficiency Technologies

### Case Studies:

- Montenegro: Analysis of the Policy Reform Impact on Energy Performance in Buildings (UNECE)
- Croatia: Successes of Systematic Energy Management in Croatia (UNDP)
- Tajikistan: Analysis of the Policy Reform Impact on Application of Energy Efficient Light Bulbs (ESCAP)
- Thailand: Promoting Energy Efficiency Investment for Sustainable Development in Thailand (ESCAP)
- China: Promoting Industrial Energy Efficiency Policies in China (ESCAP)

Website: <a href="http://www.unece.org/index.php?id=32843">http://www.unece.org/index.php?id=32843</a>



























## Policy seminars on policy reforms UNECE-ESCAP region (cont.)

Fourth International Forum: Energy for Sustainable Development (Tbilisi, Georgia, 17-19 September 2013). Workshop on Case Studies on Policy Reforms to Promote Financing Energy Efficiency Investments and Advanced Energy Efficiency Technologies

### Case Studies:

- Armenia: Co-generation Based District Heating Restoration Project in Avan District of Yerevan City (UNDP)
- Georgia: Municipal Energy Efficiency Policy Reforms in Georgia (UNECE)
- Belarus: Removing Barriers to Energy Efficiency Improvements in the State Sector in Belarus (UNDP)
- Azerbaijan: Analysis of the Policy Reform Impact on Sustainable Energy Use in Buildings (UNECE)

Website: <a href="http://www.unece.org/index.php?id=32843">http://www.unece.org/index.php?id=32843</a>































### **Analysis of national case studies**

Analysis of national case studies on the experience of policy reforms in beneficiary countries in UNECE, ESCAP, ECLAC, ESCWA and ECA regions

- information on EE policy and regulatory frameworks at the national level
- review and analysis of the national case studies
- policy and regulatory aspects that countries would need to deal with when attracting and implementing investments
- energy efficiency benchmarking
- conclusions and recommendations related to enhancement of EE policy reforms in participating countries
- recommendations on collaborative policy reforms measures that UN RCs can undertake to catalyze new EE investments in the regions

http://www.unece.org/fileadmin/DAM/energy/se/pdfs/geee/geee1 Nov2 014/DraftPrePublicationAnalysisCaseStudies AS Latest.pdf































# Training Seminars on Business Planning of Energy Efficiency Projects UNECE-ESCAP region

### Regional training seminars:

- Almaty, Kazakhstan (3-4 April 2013)
- Istanbul, Turkey (20-21 June 2013)
- Organized jointly with ESCAP and CAEESP/USAID (in Almaty) and UNDP (in Istanbul)
- Over 80 project developers and owners from 23 countries trained
- 18 presentations on progress in developing project proposals
- Inter-regional Workshop on Energy Efficiency Investment Projects Pipeline, Bangkok, Thailand, 23-24 April 2014
- 32 projects from 17 countries presented; total value: US\$ 190 million
- 18 projects fully or partially financed; total value: US\$ 139 million



















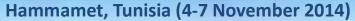








# Fifth International Forum on Energy Sustainable Development



- Joint Statement of the Executive Secretaries of the United Nations Regional Commissions
- Global Workshop 1: Promoting energy efficiency investments for climate change mitigation
  - Improved regulatory and institutional framework for promotion of financing for energy efficiency projects
  - Increased financing for investments in energy efficiency projects, including through innovative financing mechanisms
    - Panels: a) Reviewing the status of market formation for energy efficiency from the point of view of financial sector and business community; b) Financing options for energy efficiency projects, including innovative finance
  - Improved regulatory and institutional framework for EE projects
  - Improved knowledge and experience on expert level in identifying and formulating energy efficiency investment project proposals and presenting them as bankable project proposals
- Global Workshop 2: Promoting renewable energy projects and access to affordable and clean energy for sustainable development
  - Outcomes of completed UNDA Project: "Enhancing energy security and improving access to energy services through the development of public-private renewable energy partnerships"
  - Launching of new UNDA Project: "Promoting renewable energy investments for climate change mitigation and sustainable development"

































# **Analysis of Success Factors and Barriers for Energy Efficiency Investments Projects**

### **Success Factors**

- Identified need for energy saving due to high resource costs
- Existence of appropriate legislation, norms and standards, government programs and polices
- Support for regional and municipal authorities and national government
- Willingness of company/organization managers to implement energy efficiency improvements
- High level of project profitability
- Energy audits and implementation of energy management
- Support from international donors
- Possibility to repay and service loans with savings generated from improved efficiency

































### **UN Development Account Project**

## Promoting renewable energy investments for climate change mitigation and sustainable development (2014-2017)

Implemented by UNECE and ESCWA – lead agency

### **Objective**

 To strengthen the capacities of government officials, national financial institutions and national energy experts and project developers, which are involved in renewable energy (RE) in selected developing countries and countries with economies in transition in the ESCWA region and ECE region, to attract investments in renewable energy projects as a means of sustainable development and climate change mitigation

### **Expected Accomplishments**

- a) Improved capacity of government officials, national financial institutions and national energy experts and project developers to develop renewable energy investment projects in the private and public sectors
- b) Improved capacity for governments to adopt policies and measures to improve opportunities for banks and commercial companies to invest in renewable energy projects through the development of new financing mechanisms





# **UN Development Account Project** (cont.)

Promoting renewable energy investments for climate change mitigation and sustainable development (2014-2017)

### **Main activities**

- **Two regional trainings** in RE project development, finance and business planning to educate participants on mentioned issues
- Developing an *investment project pipeline*
- Two regional workshops (one in each region) on RE investment projects
- Six case studies on the experience of policy reforms
- **Two policy seminars** focusing on policy reforms
- Establishing an online platform for knowledge sharing information and compilation of best practices and lessons learned from other regions
- **End-of-project workshop** to present business plans from investment project pipelines































# Interregional Workshop and Study Tour on Energy Efficiency and Renewable Energy Projects and Policies

Israel, 8-12 February 2015

- Activity under the UNDA projects on energy efficiency and renewable energy
- Organized jointly by the Government of Israel and the UNECE
- Designed for Government officials, project developers and owners, and experts in the field of sustainable use of energy from countries of South-Eastern and Eastern Europe, Caucasus, and Central Asia





























## Thank you for your attention!

### **Viktor Badaker Oleg Dzioubinski**

**UNECE Sustainable Energy Division** viktor.badaker@unece.org oleg.dzioubinski@unece.org

http://www.unece.org/energyefficiency.html





























