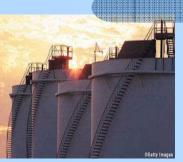


### United Nations Economic Commission for Europe



# Financing Energy Efficiency and Renewable Energy Investments in countries of Eastern and South-Eastern Europe and Central Asia



#### **Oleg Dzioubinski**

**EE21 Programme Manager Sustainable Energy Division** 

Committee on Environmental Policy Geneva, 24-27 May 2011







- Working Party on Gas
- Gas Centre
- Energy Efficiency 21 Programme
  - Group of Experts on Energy Efficiency
     Investments for Climate Change Mitigation
  - Group of Experts on Global Energy Efficiency 21
- Group of Experts on Cleaner Electricity Production
- Group of Experts on Coal Mine Methane (CMM)
- Group of Experts on Harmonization of Fossil Energy and Mineral Resources Terminology



#### **Energy Efficiency 21 (EE21) Programme**



- Launched in 1991
- Seventh 3-year phase of the Project (2009-2012)
- General Objective: To enhance regional cooperation on energy efficiency market formation and investment project development to reduce greenhouse gas emissions in economies in transition
- Ten regional, sub-regional, country-oriented and interregional projects







#### **Long-Term Objective**

Promote an investment environment for self-sustaining energy efficiency and renewable energy projects to be developed and financed to reduce greenhouse gas emissions

#### **Activities**

- Source of financing with dedicated investment funds
- Training to help establish bankable project proposals
- Institutional and policy reforms
- Establishing network of energy efficiency managers

#### **Duration and Funding**

4 years (2008-2011); US\$ 7.5 million







#### Co-funding

- United Nations FoundationUS\$ 2 million
- Fonds Français pour l'Environnement Mondial US\$ 2.5 million
- UNEP/Global Environment Facility
   US\$ 3 million

#### 12 participating countries

- <u>2 European Union countries</u>: Bulgaria, Romania
- 5 South-Eastern European countries: Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, Serbia
- <u>5 countries of Eastern Europe and Central Asia</u>:
   Belarus, Republic of Moldova, Kazakhstan,
   Russian Federation, Ukraine







- Officially launched in April 2007 under the EE21 Programme mandate
  - Investment capital of €354 million. Will close early 2011
  - Mezzanine and equity capital on market terms
  - 27 European Union member states
- ECEF targets clean energy projects
  - Renewable energy: wind, solar, biomass
  - Electricity sector: hydro-electric, cogeneration, combined cycle
  - Fuel switching, geothermal, clean coal, waste-toenergy, district heating







## Bringing a "business as usual" fund by further market formation in the UNECE region Terms of transaction:

- Targeted capital: € 250 million
  - Public-Private Partnership
  - Equity and mezzanine financing
- Targeted countries:
  - EU: Bulgaria, Romania
  - South-Eastern Europe: Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, Serbia
  - <u>Eastern Europe and Central Asia</u>: Belarus,
     Kazakhstan, Republic of Moldova, Russian
     Federation, Ukraine
- Investment terms:
  - Market standard terms for projects
  - Market standard terms for investors





#### Financing modalities of the new Investment Fund

- **Examples of projects** 
  - Cogeneration, fuel switching, boilers refurbishment, district heating rehabilitation, street lighting renovation
  - Renewable energy: wind, solar, biofuels, biomass
  - Energy efficient technologies
- **Bundling schemes for smaller projects** 
  - e.g. ESCOs, local partners or other SPVs (Special Purpose Vehicles)
- Create a mechanism for active interaction also with development and commercial lenders
- Implement a project support framework for the generation of market standard project documents





#### **Recent developments in the Investment Fund** Design

#### **Conning Asset Management Limited**

- **Draft Financing Coordination Agreement prepared**
- Lead Investor and Investment Fund Manager identified
- Missions to countries conducted (Project Developers, Banks, Government Officials, Local Experts)







 Full electronic version (in English) is available at UNECE and FEEI project websites:

http://unece.org/energy/se/pdfs/eneff/eneff\_pub/ EE21\_FEEI\_RegAnl\_Final\_Report.pdf

http://feei.info/assets/cms/File/Regional%20Analysis\_Final%20Report.pdf

- Executive Summary published in English and Russian
- Second Seminar on Policy Reforms, Geneva, 20-22 October 2010







- Reduction of 10 million tons of GHG emissions a year
- Considerable energy savings
- Reduction of transaction costs by the use of the necessary standards and reforms to make energy efficiency projects business-as-usual
- Replication and scalability of such investment funds
- Extension of the EE21 Programme to the other UN Regional Commissions





#### **Global Energy Efficiency 21 (GEE21) Project**

#### **Objectives**

- Systematic exchange of experience between UN **Regional Commissions**
- Capacity building and policy reforms
- Investment project finance for EE and RE projects
- Development of a Global Strategy for market formation in the area of EE and RE







Co-organizers: UNECE, ESCAP, UNDP, UNEP, Government of Kazakhstan

EE21 Projects: FEEI, GEE21, Renewable energy in CIS, EE in Housing Action Plan, Wood Energy

#### Website of the Forum:

http://www.unece.org/energy/se/docs/eneff\_AstanaEEForum\_Sept10.html













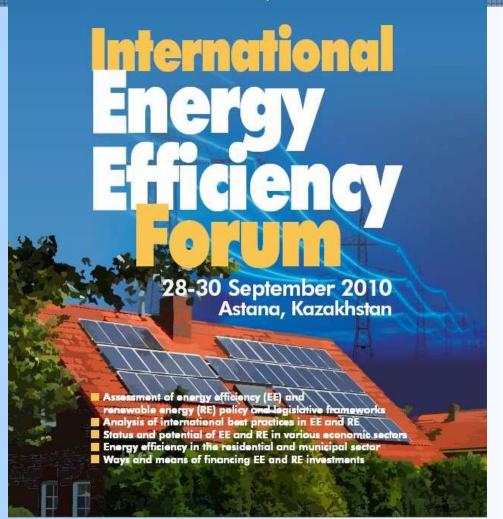














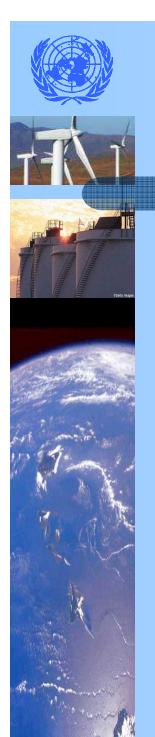
# International Energy Efficiency Forum Objectives

- Assessment of energy efficiency (EE) and renewable energy (RE) policy and legislative frameworks
- Analysis of international best practices in EE and RE
- Status and potential of EE and RE in various economic sectors
- Energy efficiency in the residential and municipal sector
- Ways and means of financing EE and RE investments



## International Energy Efficiency Forum Outcomes

- Buildings sector offers significant low-cost opportunities for energy efficiency improvements
- Barriers to financing EE and RE discussed
- Access to various sources of financing; tapping into commercial financing
- Role of the state in making EE and RE projects viable
- Importance of capacity building to develop bankable projects



# International Energy Efficiency Forum Outcomes (continued)

- Specific examples presented: case studies in buildings sector (Croatia, Serbia); EE funds (Bulgaria, Thailand)
- Experience in financing and implementing projects: IFC, EBRD, EADB, Conning Asset Management, Norsk Energi, ICF International and Renaissance Finance International
- Policy reforms are directly connected with the potential for investments in EE and RE projects
- Large and diverse RE potential in the CIS countries could have important benefits for the environment, energy security and the economy
- Proposal to make the International Energy
   Efficiency Forum a regular event



#### Thank you for your attention!



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http://www.unece.org/energy/se/eneffic.html

http://feei.info