



United Nations
Economic Commission for Europe



Financing Energy Efficiency Investments for Climate Change Mitigation



in South-Eastern and Eastern Europe and Central Asia

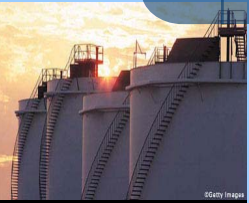
Programme Energy Efficiency 21 (EE21)

Committee on Housing and Land Management

22 September 2008



Energy Efficiency 21 Programme and its contribution to energy efficiency implementation

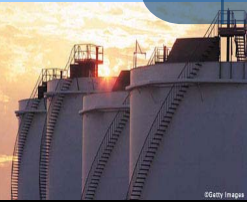


- **Objectives of the programme Energy Efficiency 21**

- Enhance regional cooperation
- Promote and finance municipal projects
- Develop regional policies and standards



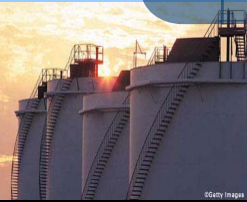
6 on-going sub-regional projects and 2 new projects



- Financing Energy Efficiency Investments for Climate Change Mitigation
- The Regional Network for Efficient Use of Energy and Water Resources in Southeast Europe (RENEUER)
- Removing Barriers to Energy Efficiency Improvements in the State Sector in Belarus
- Biomass Energy for Heating and Hot Water Supply in Belarus



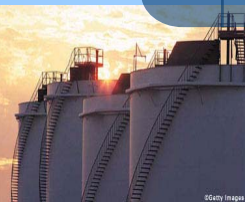
6 on-going sub-regional projects and 2 new projects



- Green Labels Purchase
- Development of Coal Mine Methane Projects in Central and Eastern Europe and CIS
- *Task Force on Energy Efficiency in Housing*
- *Better Information on Wood Energy for Better Policies*



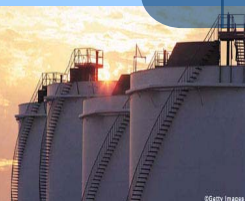
Financing Energy Efficiency and Renewable Energy Investments for Climate Change Mitigation Project



- **Co-financing**
 - United Nations Foundation
US\$ 2 million
 - Fonds Français pour l'Environnement Mondial
US\$ 2.5 million
 - Global Environment Facility
US\$ 3 million
- **12 participating countries**
 - 2 European Union countries: Bulgaria, Romania
 - 5 South-Eastern European countries: Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, Serbia
 - 5 CIS countries: Belarus, Republic of Moldova, Kazakhstan, Russia, Ukraine



Financing Energy Efficiency Investments for Climate Change Mitigation Project



Long-Term Objective

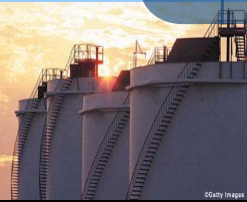
Promote an investment environment for self-sustaining energy efficiency and renewable energy projects to be developed and financed to reduce greenhouse gas emissions

Activities

- ☞ Source of financing with dedicated investment funds
- ☞ Training to help establish bankable project proposals
- ☞ Institutional and policy reforms



Energy efficiency policies and measures are financially viable



Financial savings from EE policies and measures exceed by far the initial extra investment cost for consumers*

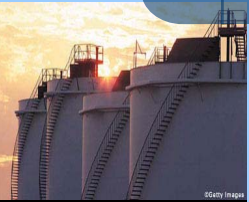


- On average, each 1 \$ invested in a more efficient electrical equipment, appliances or buildings avoids a 2 \$ investment in the electricity supply sector
- The payback period of the additional demand-side investments is very short: from 1 to 8 years

* IEA, World Energy Outlook



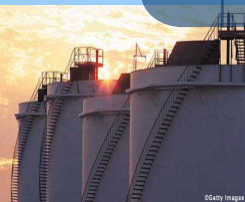
European Clean Energy Fund – Swiss Re



- **Officially launched in April 2007 under the EE21 Programme mandate**
 - Investment capital of € 354 million, 40 % committed
 - Mezzanine and Equity Capital (target IRR of 15-20 % per annum)
 - 25 European Union member states
- **ECEF targets clean energy projects in 27 European Union countries**
 - Renewable energy: wind, solar, biomass
 - Electricity sector: hydro-electric, cogeneration, combined cycle
 - Fuel switching, geothermal, clean coal, waste-to-energy, district heating



European Clean Energy Fund – Swiss Re

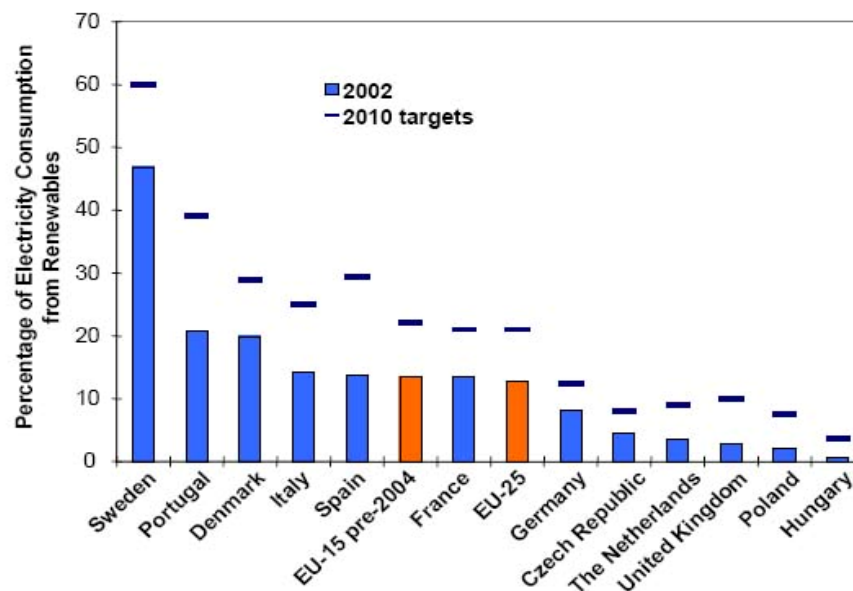


- The EU goal is to draw 20 % of EU-25 electricity consumption from renewables by 2010*
- Cumulative capital requirements to meet EU 2010 renewable energy generation targets to 2010 are estimated to be €155 billion**
- Sustained high fossil fuel prices combined with climate change concerns and ratification of the Kyoto Protocol enhance the demand for clean energy overall and make Central and Eastern Europe projects economically attractive

* Source: EUROSTAT

** Source: European Renewable Energy Council

EU Targets for % of Electricity Consumption Met by Renewables by 2010 are Aggressive*





Structure of the new Investment Fund

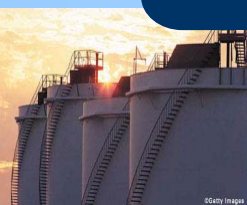
Making “business as usual” through market formation in the ECE region

Terms of transaction:

- **Targeted capital: €250 million**
 - Public (30 %) – Private partnership (70 %)
 - Equity and mezzanine financing
- **Targeted countries:**
 - EU: Bulgaria, Romania
 - South-Eastern Europe: Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, Serbia
 - CIS: Belarus, Kazakhstan, Republic of Moldova, Russia, Ukraine
- **Investment time:**
 - investment period of 4 years
 - investment term of 10 years



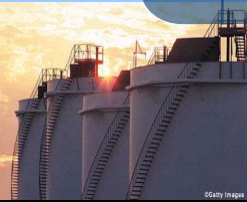
Financing modalities of the new Investment Fund



- **Financing of big scale projects**
 - Minimum project size: € 20 million with a minimum investment amount of € 10 million
 - ESCOs or other SPVs (Special Purpose Vehicles)
 - ex. Fuel switching in a power plant
- **Examples of projects**
 - Electricity: cogeneration, combined cycle, fuel switch
 - Renewable energy: wind, solar, biofuels
 - Clean technologies
- **Quantifiable ecological evaluation**
 - UNEP methodology



Training and institutional reforms promotion

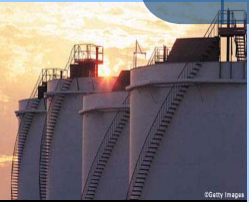


- Training courses organised to help establish bankable project proposals
- Regional study on:
 - ☞ the energy efficiency situation
 - ☞ investment climate in participating countries



The project will achieve:

- Reduction of GHG emissions of 10 million tonnes a year
- Considerable energy savings
- Creation of necessary standards and reforms to make energy efficiency a usual and privately financed business
- Enlargement of the EE21 programme to the other Regional Commissions





Thank you for your attention !

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