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# **"INOGATE Technical Secretariat & Integrated Programme in support of the Baku Initiative and the Eastern Partnership energy objectives" Project**

**BUILDING PARTNERSHIPS FOR  
ENERGY SECURITY**

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# “Capacity building for financing of EE/RES projects” under Ad Hoc Expert Facility – AHEF, provided by INOGATE New ITS Project

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## **Georgian Energy Efficiency and Renewable Energy Business Train The Trainers**

**Irakli Vardigoreli, ITS Regional Expert  
Tbilisi, Georgia, July, 9-13, 2013**

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# Main Barriers to Implementing CDM Process, Identified

- Weak market infrastructure
- Inaccessibility of data to construct baseline scenarios
- Small potential of CDM projects
- Despite its international commitment under Kyoto, Government of Georgia has not
  1. assessed national emission and air pollution performance.
  2. No plans in place for sustainable development up to 2020 and 2030.

# Common Barriers Preventing EE Investments



- Focus on core business and short term objectives
- Energy bill a small portion of cost base
- Poor capital planning tools to prioritise investments
- No corporate planning for future tariff increases or environmental obligations (e.g., on emissions).
- No in-house expertise to assess EE/RES projects.
- Lack of information on options and financial reward
- Separated responsibility for energy expenditures and conservation.
- Residential sector barriers:
  - Low awareness of benefits (financial and comfort)
  - Weak installation capacity
  - Long pay-back periods
  - Disagreement and widely varying credit capacity among apartment dwellers

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# Financing Available for EE/RE Projects



- **EBRD** - CEEP I and CEEP II: \$105 M in total with permanent technical assistance
- **KfW** - Renewable Energy credit line €15 M with ad hoc technical assistance
- **Austrian Development Bank** - €15 M with ad hoc technical assistance
- **IFC** - Residential EE credit line - €14 M

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# EE and RES Technologies Applicable for Funding in Industry



Industrial Energy Efficiency Investments		Renewable Energy Investments
On site cogeneration of heat and electricity	Rehabilitation of steam distribution systems	Wind farms
Rehabilitation of boilers	Process heat recovery	Run-of-river hydro plants
Replacement of old gas boilers with condensing boilers	Absorption chillers/new chillers	Solar hot water systems for processes or heating
Switch from electric heating to fuel based direct heating	Energy management systems or building management systems	Biomass systems generating heat only or heat and electricity
Process improvements including enhanced controls	Variable speed drives on select electric motors	Gas engines using biogas
Rehabilitation of compressed air systems	Rehabilitation of power distribution systems	Diesel engines using biodiesel

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# EE and RES Technologies Applicable for Funding in Built Environment



- Insulation of building envelope
- Double-glazed windows
- Efficient heating boilers
- Solar water heaters
- Efficient ventilation and air-conditioning systems
- Geothermal heat pumps
- Modern illumination systems

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# Thank you



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