"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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EE / RES BUSINESS AND TECHNOLOGIES

AHEF GE.049 WORKSHOP:
“Capacity building for financing of EE / RES projects”

July 9-13, 2013
Tbilisi, Georgia

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1. BUSINESS

in the field of ENERGY EFFICIENCY and RENEWABLE ENERGY SOURCES
ENERGY SECTOR PRESENTATION

- Energy Industry & Technologies
- Energy forms and sources
- Energy Efficiency Business
- Renewable Energy Business
- Bank’s Interest
BUSINESS in the FIELD of EE and RES

ECONOMIC REFORMS

POTENTIAL for ENERGY SAVING (ES)

PROVEN TECHNOLOGIES

REALISTIC COSTS

ENERGY LEGISLATION

Tariff Policy

Regulatory Acts

Governments, International Donors, IFIs

SME, LFIs, Equipment Manufacturers, Consumers
Huge EE/ES market in the CIS

International EE/ES projects

Engineering, Audits, ESCO

Forms of Financing

Risk Management “Outsourcing”

Energy Efficiency is a priority of global energy policy

ANY upgrading has an element of EE and ES

MESSAGE to the BANK
RES: BUSINESS and FINANCIAL INSTITUTIONS

Globally, RES investments are growing exponentially (very rapidly)

MESSAGE to the BANK

22 bln → 155 bln

2002 → 2008

RES Investments > FES Investments

2013 ESTIMATES

Over 300 bln

BIOFUEL
EE / RES BUSINESS

BANK, LFI

VENTURE FUNDS

PENSION FUNDS

INFRASTRUCTURE FUNDS

DIRECT INVESTMENTS

RES PROJECT

EQUITY FUNDS / CAPITAL

Additional Issue

Operating Assets

GRANTS

BIOFUEL
VENTURE FUNDS

High Risks
PBP 4 – 7 years
IRR 50 – 500%

Risk Management
PBP 3 – 4 years
IRR over 25%

DIRECT INVESTMENTS

Low Risks
PBP 7 – 10 years
IRR over 15%

Low Risks
PBP 10 – 15 years
IRR 10 - 15%

INFRASTRUCT. FUNDS

PENSION FUNDS

EE / RES BUSINESS
EE / RES FINANCING:
SPECIFIC and DISTINCTIVE FEATURES

- BIG CAPITAL INVESTMENTS
- LONG PAYBACK PERIOD
- LONG PROJECT IMPLEMENTATION PERIOD
- ACTIVE ROLE of the REGULATOR
- WIDE RANGE of RISKS
2. TECHNOLOGIES

in the field of ENERGY EFFICIENCY and RENEWABLE ENERGY SOURCES
- Mechanic Energy
- Electricity
- Thermo Energy
- Light
- Chemical Energy
- Bio Energy
- Nuclear Energy
ENERGY EFFICIENCY: BUSINESS

TECHNICAL SOLUTIONS / TECHNOLOGIES

- Co-generation
- IT control
- Secondary using of energy
- Pressed air
- Lighting
- Thermo pumps
- Pipe line insulation
- Air conditioning & ventilation
RENEWABLES: BUSINESS

Hydro Power Plants

Wind Farms

Solar Power Plants

Biogas Plants

Biofuel Production

Geothermal Plants
ENERGY EFFICIENCY: COMMERCIAL AND RESIDENTIAL BUILDINGS

CONSTRUCTION MATERIALS

Walls & Roof Insulation

Duplex & Triplex

Dark screening slide using

Draught coverage
ENERGY EFFICIENCY: COMMERCIAL AND RESIDENTIAL BUILDINGS

LIGHTING

- Lighting control system
- Daylight illumination control system
- Max use of daylight illumination
- Use of efficient lamps
ENERGY EFFICIENCY: COMMERCIAL AND RESIDENTIAL BUILDINGS

HEATING, VENTILATION AND AIR CONDITIONING

Pipe line insulation
Thermo pump installation
Natural ventilation system
Secondary using of energy
CO₂ control system installation
ENERGY EFFICIENCY: COMMERCIAL AND RESIDENTIAL BUILDINGS

IT CONTROL

EMS – Energy Management System

Central Coordination System

Local Systems network

Simultaneous Control
20% of energy / power consumption

98% of energy consumption in transport is non-renewable

! TRANSPORT IS THE FIRST ENEMY OF ECOLOGY !

ENERGY EFFICIENCY: TRANSPORT
INVESTMENT DIRECTIONS

- Public transport system
- Improve railway network
- Improve seaport and river port system
- Multi transport links creation
- Engines on the base of new technologies

Possible solution
Bio fuel !!!
THANK YOU!!!

Feel free to visit our Web portal:

www.inogate.org

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