

CE European developments in the financing of energy efficiency and renewable energy projects

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Transferring of ESCO know-how among OTP Bank Group members

Slovak Republic**– OTP Banka Slovensko**

- ESCO established for public lighting modernization
- EUR 2 million credit line

Hungary – OTP Bank

- EUR 5 m public lighting
- EUR 10 m indoor lighting
- EUR 10 m heating
- EUR 20 m district heating
- EUR 10 m industrial energy efficiency.

Croatia – Nova Banka

- Refinancing of EUR 500 thsd industrial energy efficiency

**Romania - RoBank**

- ESCO established for public lighting modernization
- EUR 2 million credit line
- Incashing rights are difficult to be enforced due to Treasury handling municipal accounts

Bulgaria – DSK Bank

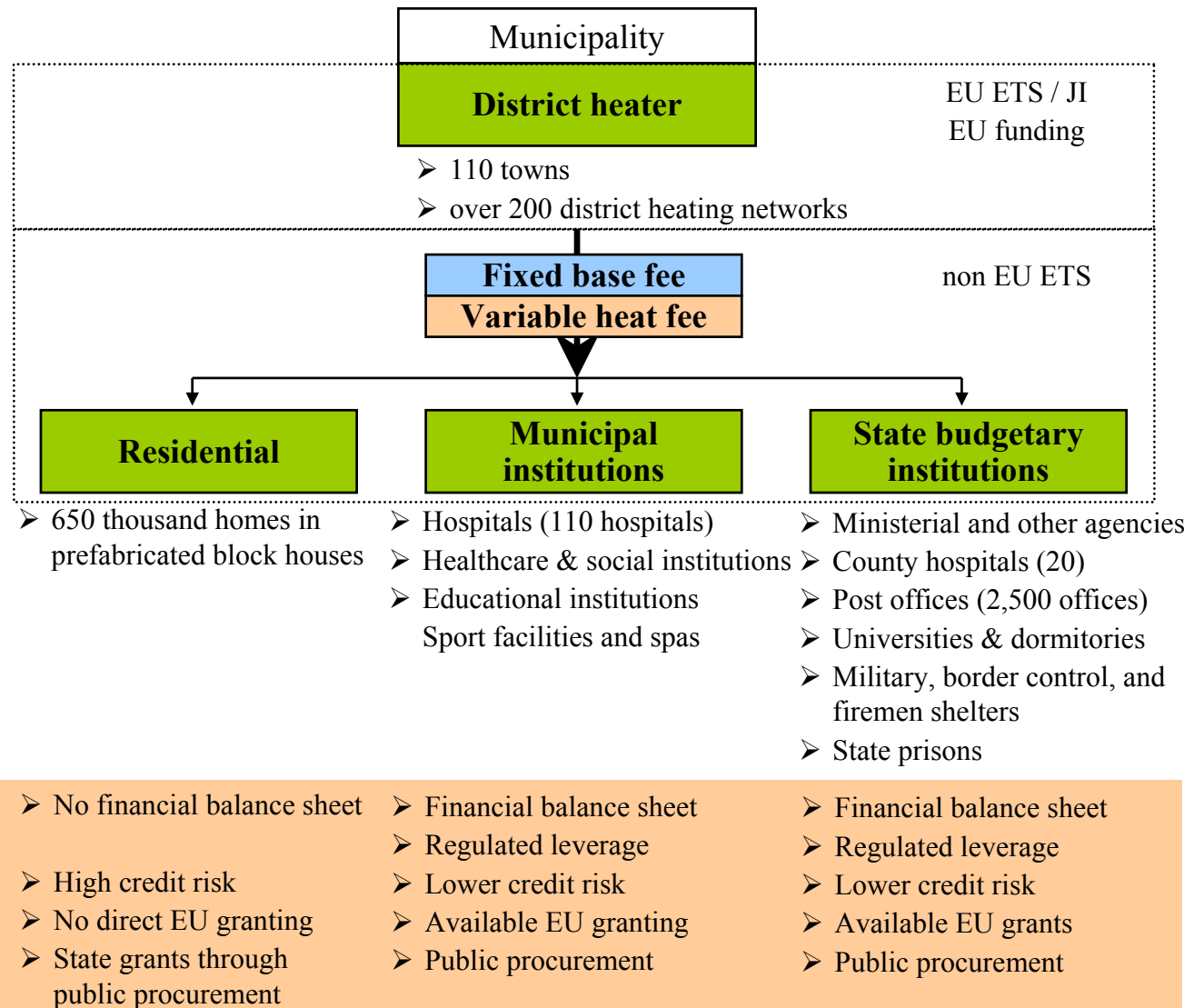
- ESCO established for lighting modernization
- EUR 2 million line already exploited
- Further EUR 6 million under arrangement

Illustration of financing alternatives through the example of district heating

Owner

Heat supplier

Heat consumer



Energy generation side financing for District heater projects

- MFB Municipal Infrastructure Loan (backed by EIB)
- KIOP – Environmental Infrastructure Operative Program
 - 60% grant for renewable energy based district heating at small towns
 - 40% grant for municipal district heating energy efficiency upgrades
 - For municipalities own equity also semi-financed by central budgetary funding
- Sale of emission reduction under EU ETS / JI / VER
 - from aggregate energy efficiency at consumption side modernization
 - from energy savings at generation and transmission side
 - from fuel switch to renewable energy
- Cash flow from:
 - Sale of cogenerated electricity to the grid
 - purchase price reduction associated with stepping out to the free natural gas market in hope of up to 10% cost saving

Energy generation side financing for **Renewable energy projects**

- MFB Project Equity (backed by EIB)
- MFB Agricultural Loan Program (backed by EIB)
- KIOP – Environmental Infrastructure Operative Program
 - 20 -50% grant for renewable energy based projects with preference for biomass
- AVOP
 - 40-70% grant for agriculture related renewable energy projects
- Sale of emission reduction under EU ETS / JI / VER
- Cash flow from:
 - Sale of cogenerated electricity to the grid
 - Reduced costs of waste handling
 - Reduced cost of transportation associated with using local raw material inputs

- MFB Municipal Infrastructure Loans (backed by EIB)
 - EURIBOR base without exchange rate risks
- ESCO – Off balance sheet financing
- KIOP - Environmental Infrastructure Operative Program
 - 40% grant for municipal energy efficiency projects
 - Own equity also semi-financable by central budgetary funding
- Sale of emission reduction under JI / VER
 - from aggregate energy efficiency at consumption side modernization through ESCOs
- Cash flow from:
 - Stepping out to the free electricity market

Energy consumption side financing at **Residential blockhouses**

National Blockhouse Modernization Program

Breakdown of the funding of modernization expenditures:

- **1/3 - financed from the state budget in form of nonrepayable grant**
 - Total amount of central budgetary grants available in 2005: HUF 6 billion
 - Maximum grant by home HUF 400 thousand
 - Deadline for applications by the municipalities: September 30, 2005
 - Precondition is availability of remaining 2/3 of financing
- **1/3 - financed by the municipality in form of non-repayable grant,**
 - Source of municipal backing can be MFB zero interest loan (15 years)
 - Deadline for application by block houses: July 31, 2005
- **1/3 to be financed by home owners in form of own equity or external loan**
 - Zero interest MFB loan transferred from the municipalities (15 years)
 - LTP (mortgagee savings 30% matched by the government)
 - Energy savings (40% in volume, but only 20% in costs due to base fee) from:
 - Modernization of heating system, thermostatic control applications;
 - Building technologies modernization ;
 - Changing or isolation windows;
 - Posterior isolation of facades.
 - Reduced district heating base fee in cooperation with district heater (also owned by municipalities)

Summary of opportunities and challenges

- Range of opportunities:
 - Inefficiency at energy generation and consumption
 - Increasing energy prices putting pressure to modernize
 - Increasing disposable incomes and environmental awareness
 - Support of residential energy modernization through district heating modernization supportable by EU funding, (while direct residential support would be not)
 - Availability of long term financial instruments (on and off balance sheet)

- Some challenges:
 - District heating base fee independent of consumption
 - High and not reclaimable VAT (currently at 25%)
 - Public procurement and lengthy municipal decision making
 - Exchange rate and interest rate risks
 - Combination of financial instruments (off balance sheet instruments with EU funding, supported interest rate loans)
 - Integrating stakeholders short / medium / and long term interest
 - Funding organized by a number of different institutions each involving lengthy preparation processes.

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