

EBRD's Approach to Financing Energy Efficiency in Transition Countries

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Why Energy Efficiency matters

- Energy intensity still too high: rising fossil fuel prices make EE investments increasingly cost-effective
- Be more competitive
- EU legislation on EE: buildings, etc.
- Kyoto + ETS: carbon emissions have a price; emission reductions can be monetised
- EE is cheaper than new generation capacity
- Security of supply:
 - Slovakia imports over 75% of its energy
 - Closure of Bohunice



Energy Efficiency: Strategy

- Dedicated energy efficiency team
- Main approaches:
 - Systematically pursuing EE opportunities in industrial projects
 - Making energy supply systems more efficient
 - Supporting providers of EE services, e.g. ESCOs
 - Reaching out to small projects through wholesale financing instruments: equity funds or local financial intermediaries, e.g. credit lines
 - Promoting Carbon Finance as a co-financing source



Industrial Projects: Approach

- Screen all projects at concept stage and identify those with EE potential – ratings are given (*E0*, *E1*, *E2*)
- Provide free energy audits funded by donors (TC)
- Structure an “add-on” to direct debt or equity financing – enhances company cash flow
- Energy Management training modules where appropriate



Example: TogliattiAzot (Russia) 2004

- Largest ammonia producer in FSU, approx. 7.6% of world market
- \$160mln senior corporate loan for complete revamp and modernisation of 4 production units and capacity increase
- Energy audit funded by Dutch Government
- ToAz consumes approximately 1% of Russia's domestic gas, largest single-site user!
- Reduce gas consumption for existing production in the revamped plants by 20%; annual gas saving (on existing production output) is approximately equal to the average monthly consumption of Switzerland



ESCOs: Energy Alliance (Ukraine) 2004

- First privately-owned Ukrainian **ESCO**; Start-up company; Sponsor is Western NIS Enterprise Fund
- Focus on leasing small (1-3 MW) co-generation and electricity generation engines to industrial clients
- \$10 mln EBRD loan; \$5 mln syndicated to RZB
- Lease payments calculated based on current grid heat and electricity prices minus a discount
- 1st Project with KOEP, a large Ukrainian edible oil extraction plant in Kirovograd oblast; constr. of a 4 MW co-generation station fuelled by sunflower seed peels (natural by-product of the client)



UkrEsco (Ukraine): a Public ESCO

- State-owned ESCO created in 1998 through an initiative between Ukraine, EBRD and the EU
- EBRD extended a \$30 million loan to UkrEsco, secured by a sovereign guarantee
- UkrEsco targets industrial & commercial clients
- Not true energy performance contracting: payment to ESCO akin to a loan; is due regardless of actual savings
- Follow on loan of \$20 m to be signed in Q4 2005; key covenant is privatisation of UkrEsco



City of Łódź (Poland): ESCO for public sector facilities

- Bank initiated and supported project development with TC funds for preliminary assessment & preparation of tender
- Scope: Circa 420 municipal buildings (mostly schools and kindergarten); largest single ESCO contract in the region
- ESCO to be selected through int'al tender. Initial tender void because only one bidder. City still to decide whether to re-start tender
- EBRD could provide loan or payment guarantee to ESCO on a limited recourse basis; or buy receivables (forfeiting) or share risk with forfeiting bank



EE Credit Lines: 1/ Bulgaria Energy Efficiency and Renewable Credit Line

- The Facility is the first of two Frameworks and was established in 2004 to extend credit lines to Participating Banks (PBs)
- Proceeds are used for on-lending to the private sector for industrial energy efficiency and small renewable energy projects
- EBRD finance: €50 million to six Participating Banks which is fully committed
- Grant component of €13.2 million provided by the Kozloduy International Decommissioning Support Fund (“KIDSF”) to address barriers to the financing of EE measures



Bulgaria EE and RE Credit Line – Grant Component

Technical Assistance

- **Project implementation and credit line support:** Consultancy firm working with the PBs and sub-borrowers to identify eligible sub-projects; prepare loan applications; undertake marketing activities and dissemination of information on rational energy utilisation and ensure optimal uptake and utilisation of the facility
- **Independent Energy Expert:** Consultancy firm to conduct a completion validation review for each sub-project to ensure that they met the eligibility criteria

Incentive Payments

- **Completion fees to sub-borrowers:** % of sub-loan amount for energy efficiency projects; % of sub-loan amount for renewable energy projects (*payable upon confirmation of completion by the independent energy expert*)
- **Completion fees to PBs:** % of each sub-loan amount (*payable upon confirmation of completion by the independent energy expert*)
- **Administrative fees:** % p.a. of the principal loan amount outstanding



Bulgaria EE and RE Credit Line - *Results*

Update on the facility (End 2005):

- EBRD disbursed to PBs: € 15.8 million
- 36 sub-loans approved by PBs in the amount of € 20 million including 15 completed sub-projects
- Estimated emission reductions on current portfolio: 239,000 tonnes CO₂ / year
- Estimated benefit in power generation equivalents on current portfolio is 82 MWe; about € 60k grant for each MWe saved or added from a renewable source
- 141 sub-projects in pipeline representing more financing than remaining; evenly split between industrial energy efficiency and small renewables



EE Credit Lines 2/ : Bulgaria Residential Energy Efficiency Credit Line

- The Facility extends credit lines of €50 million to Bulgarian Banks for on-lending to the residential sector for improvements in energy efficiency both in blocks of flats and individual houses
- A grant component of €10 million from KIDSF to overcome the barriers to energy efficiency lending market development, at both the level of the bank and individual sub-borrower;
 - Completion fee to sub-borrowers (around 20% of investment)
 - Administration fee to PBs
 - TC contract to support the implementation and administration of the facility
- Eligible measures include solar investments, low thermal transmittance windows, efficient boilers and insulation



Bulgaria Residential EE Credit Line – *Results so far*

- To date, Loan agreements have been signed with 4 Bulgarian banks for a total of €30.1 million – RZB, DSK, Postbank and UBB
- TC contract to support the implementation and administration of the overall facility is in place
- At year-end there were 386 sub-loans committed for a total investment of approximately €500,000 with 215 sub-loans completed and verified
- Good start and expectations are for good utilisation in the Spring and the addition of further PBs. A methodology to estimate related savings/emission reductions is being prepared



Replicate Model for Slovak Republic

- Up to €60 million EBRD financing facility in loans/guarantees
- Sign agreements with 4-6 Slovak Participating Banks (“PB”) to make loans to Industrial and Renewable Energy Companies, Housing Associations and Consumers for eligible investments
- Eligible investments to include demand side energy efficiency investments in the private and residential sectors, combined heat and power projects and small renewable energy investments
- Grant Co-financing of €15 million from the BIDSF for :
 - Technical assistance package of approximately €2-€2.5 million for support in preparing sub-projects, marketing and monitoring
 - Incentive structure providing an administration fee to PBs to ensure their participation (% of loan amounts) and rebates to sub-borrowers (“SB”) (estimated at 10-20% for energy efficiency and likely higher for renewables)
- Market Demand Study underway will quantify market size and final structuring of PB/SB incentive package and TC requirements



Carbon Finance

- Opportunity to monetise emission reductions arising from EE / RE projects
- Three mechanisms for Slovakia:
 - EU ETS; e.g. power generation; steel
 - JI; issue of double-counting
 - Green Investment Schemes (GIS)
- EBRD manages a €35 mln cooperation fund buying carbon credits from 13 JI countries for the account of the Netherlands
- EBRD Board recently approved creation of a multilateral donor fund (MCCF) which will also facilitate GIS



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