

Urban Heating Study: Europe & Eurasia

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Presentation Outline



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- Research Tasks
- Objectives of the Study
- Data Inputs
- Regions and Timeframes
- Approach

Research Tasks



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- Present integrated, comprehensive assessment of recent trends in urban heating legal and regulatory reform and restructuring programs in E&E countries;
 - Changes in subsidies, financing, economic performance, and budgetary/investment Implications
 - Regulation by local authorities and ownership changes
 - Changes in costs vs. quality of heat supply service
 - Commercialized heat market experience
 - Emerging decentralized systems where DH is not functional
 - Fuel competition
 - Losses and potential for energy efficiency
- Collect a compendium of urban heat restructuring and modernization case studies and lessons learned;
- Produce recommendations and collect inter-agency feedback on further reform needs and recommended investment areas

Objectives of the Study



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1. Identify critical countries for priority technical assistance programs and/or investment projects
2. Reveal institutional development needs including
 - Ownership/management changes
 - Tariff setting, subsidy removal, and regulation
 - Metering, billing, collections
3. Evaluate financing requirements for rehabilitation and modernization
 - Within heating networks
 - Within end-users

Objectives of the Study – Cont'd



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4. Role of public private partnerships
 - Importance to successful heating system reform
 - feasibility of different PSP options by country or sub-region
5. Identify commercial opportunities
 - Types and sources of equipment and services needed
 - Export opportunities for U.S. Industry
6. Links with other municipal and local government programs
 - Encouragement of decentralization of authority
 - Assistance in controlling municipal budgets
 - Improved delivery of municipal services (communal services, education, health care)

Data Inputs

DESCRIPTION OF PROBLEM / ISSUE
Policy Frameworks –
lack of clear legislation for DH
Institutional capacity – state & local levels
Affordability of Heat
Heating Infrastructure
Generation capacity inadequate
T&D network obsolete and inoperable
Finance & Investment
Financing mechanisms (loans, concessions, leasing, vendor credits, municipal bonds, DCA, PSP etc.)
Lack of “bankable projects”
Heat supply companies not creditworthy
End-Use Efficiency
Lack of consumer awareness about EE
No incentives for end-use EE
Billing transparency

Indicators (to be filled where appropriate/available)
Tariff as a % of market price
Subsidies as a % of tariff (if applicable)
MW installed heat energy generation capacity
% of heat supply by ESCOs
% of heat end-use metered
% of heat end-use paying by sq.meter
Average % losses in distribution systems
% Savings achieved over past 10 years
% reduction in energy required to heat 1 sq. m. of heated space
% of billed fees collected
% consumers needing heat subsidies
% Low-income heating costs covered by social care
% of housing stock in HOAs
% of housing stock served by private maintenance Co’s
of DH company employees per MW heat energy produced
GHG emission reduction potential
\$ price of reduction of 1 ton of CO ₂
% of heat supplied by CHPs
% municipal ownership
% of heating costs in municipal budgets
% interest rate for heating projects/ ESCO financing
Average IRR (or range) in heating projects
Average payback (or range) on heat sector investments
Total \$\$ invested in heat sector over past 10 years
% - Average efficiency of generating capacities

Regions and Timeframes



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Regional coverage:

- Southeast Europe
- Baltic States
- Commonwealth of Independent States

Timeframes:

- November 2005 -- first draft, presented at a workshop
- February 2006 -- final draft, presented at a workshop
- March 2006 -- final report released

Approach



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- Collect data through country-specific surveys, desk review, case studies and interviews (with regulators, donors, utility officials)
- Review and comparatively analyze new and existing MUNEE resources
- Collect inputs from heating experts on specific research tasks
- Coordinate with other partner programs on urban heating

Approach – Cont'd



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- Produce discussion papers and collect peer reviews from ***expert working group members***
 - **Comments and suggestions on further research, data sources, past program findings, case studies, policy and investment recommendations**
- Hold policy workshops on key urban heating issues and priorities with the participation of experts, donors, policy officials.
- Implement research in close coordination with MUNEE Utility Affordability study