

USAID's Municipal Network for Energy Efficiency Studies for Europe & Eurasia:

(1) Urban Heating and

(2) EE & Urban Utility Affordability

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Urban Heating: 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 Urban Heating Study



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- 1. Identify critical countries for priority technical assistance programs and/or investment projects**
- 2. Reveal institutional development needs**
- 3. Evaluate financing requirements for rehabilitation and modernization**
- 4. Role of public private partnerships**
- 5. Identify commercial opportunities**
- 6. Links with other municipal and local government programs**

ISSUES TO BE ADDRESSED



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Policy Frameworks

Heating Infrastructure

Finance & Investment

End-Use Efficiency

Indicators to be considered where available: **NEED INPUT FROM IMPLEMENTING PARTNERS!!!**



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- **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 CO2**
- **% 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**

Objectives of the Energy Efficiency and Urban Utility Affordability Study



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- Assess impact that reforms and restructuring in essential utility services will have on the affordability of heat, electricity, water & wastewater.
- Present the policy case for energy efficiency vs. traditional approaches (e.g. subsidies, “social tariffs”)
- Identify policy, legal, institutional, commercial, and other impediments to using energy efficiency to provide an energy social safety net among vulnerable households.
- Tie in to the Energy Community for Southeast Europe and the role of energy efficiency
- Reach a broad audience: Governments, NGOs, development banks and financiers
- Document utility affordability problems and residential energy efficiency experience

Key Questions



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- Understanding the Urban Residential Sector
- Why has relatively little priority been given to urban residential energy efficiency?
- Policy & Regulatory Frameworks
- Energy Efficiency Results: financial, investment, social, cost implications, etc

Data Sought for Utility Affordability Analysis: Any input welcome!!!



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- Municipal expenditures (and % of municipal budgets) related to supplying, consuming and subsidizing heat, hot water, cold water and wastewater services
- Average annual household costs for essential services, by income level
- Percentage of household incomes spent on energy efficiency improvements

Regions Covered by 2 Studies



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Research coverage:

- Central and Eastern Europe
- Commonwealth of Independent States

Approach



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- Review and comparatively analyze new and existing resources and case studies
- Collect data through country-specific surveys, desk review, case studies and interviews (with regulators, donors, utility officials)
- Collect inputs from **expert advisors** on specific research tasks Coordinate with other partner programs on urban heating
- Start a discussion of key research topics on electronic discussion group on MUNEE Heating and Affordability [muneeheatingandaffordability@yahoo.com]
- Produce discussion papers and collect peer reviews from *expert working group members, present and discuss in workshops*

Expert Working Group Meeting



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- **When:** 1 July, Friday, 12:30 – 16:30
- **Where:** Salle A 206
- **Who should attend:** Experts and implementing partners involved with heat, energy efficiency, financing, social, policy and regulatory issues in CEE&NIS countries
- **How to get there:** on the 2nd floor, close to door XI. You can reach it from the 3rd floor going down from the stairs between salle VII and VIII.

Questions to be discussed



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- What interventions and programs has your institution (and your partnering institutions) taken to address problems related to:
- What countries/regions are in the focus of those interventions?
- What specific problems did the intervention aim to address?
- What do donors and beneficiaries say they learned from the intervention?
- What, if anything, changed as a result of the intervention? In other words, how can we characterize the impact of the intervention?
- What would parties involved in the intervention do differently, knowing what they know now?

Share experience in hot topics:



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- How effective have the subsidies been?
- What were the implications for municipal budgets?
- What is the status of the utility restructuring efforts (technical/market)?
- What is the current efficiency and environmental performance of systems?
- What is the viability of the current structures and and what happens if they are not viable?
- Successful models: technical, social, management, control, billing, pricing, etc
- What are the barriers remaining?

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