

Survey Analysis of Barriers to Residential Energy Efficiency in Armenia and Ways to Address Them

Municipal Network for Energy Efficiency (MUNEE) Program
USAID/Alliance to Save Energy-Armenia

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Workshop on Removing Barriers to Residential Energy Efficiency in Central and Eastern Europe
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Used Surveys for Summary Analysis



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- Current Energy Saving Status and Needs in Armenian condominiums (in 3 cities), 2003;
- Municipal Survey on Current Energy Efficiency Status and Needs (in 9 cities), 2004;
- Condominium and Other Related Organization Survey on Current Energy Efficiency Status and Needs (in 3 cities), 2005;
- Heat Supply/Residential Energy Saving Needs Assessment (in Shirak marz), 2005.

Residential Energy Efficiency (EE) in Armenia



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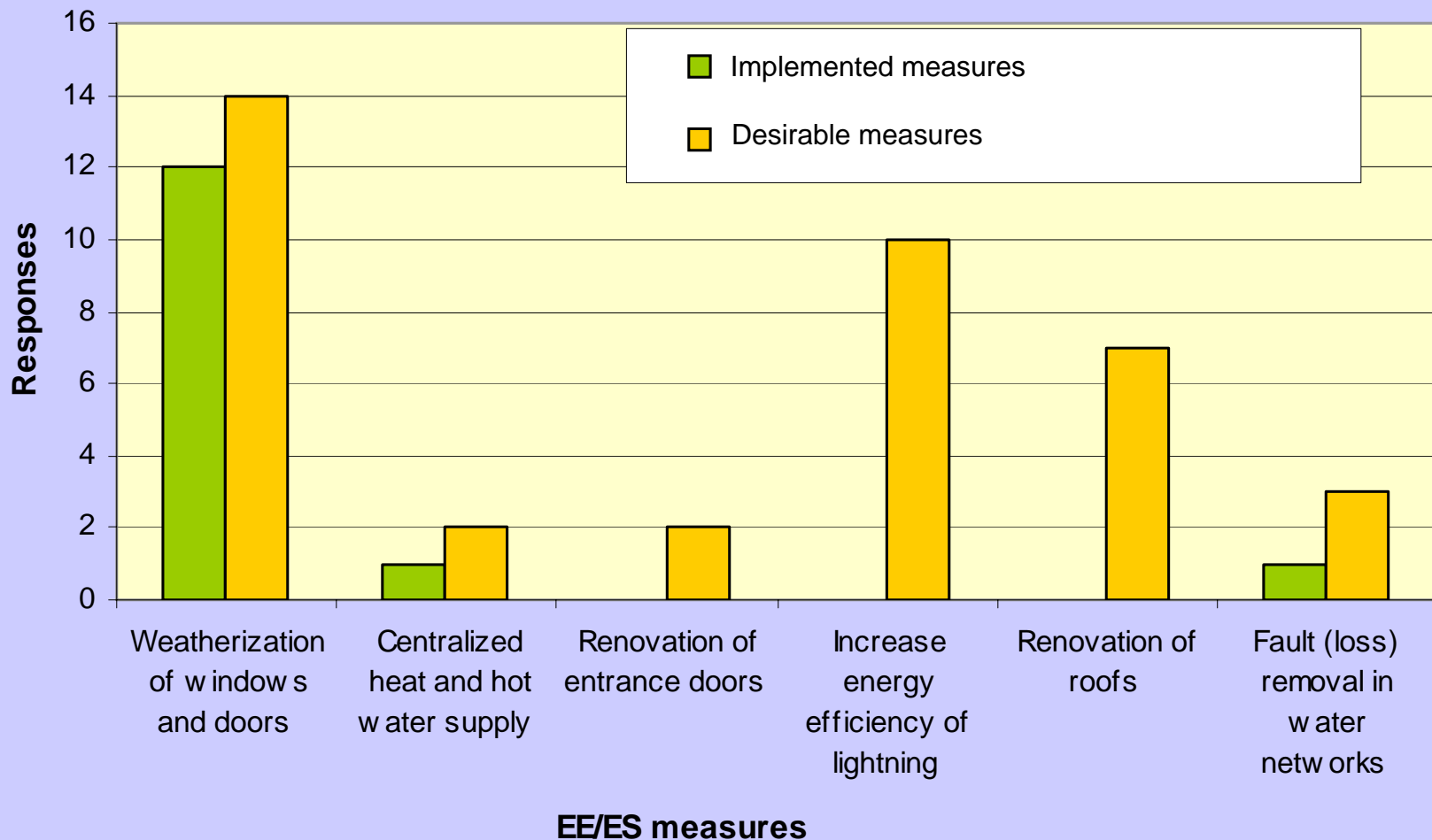
- Condominiums represent the residential sector in Armenia;
- 77.8 % of the total housing stock (826 registered condominiums or home owner associations exist);
- 40 - 80% collection for public utilities and management service fees.

Energy Efficiency/Energy Saving (EE/ES) Activities in Condominiums



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The Desirable and Implemented EE/ES Measures in Gumri

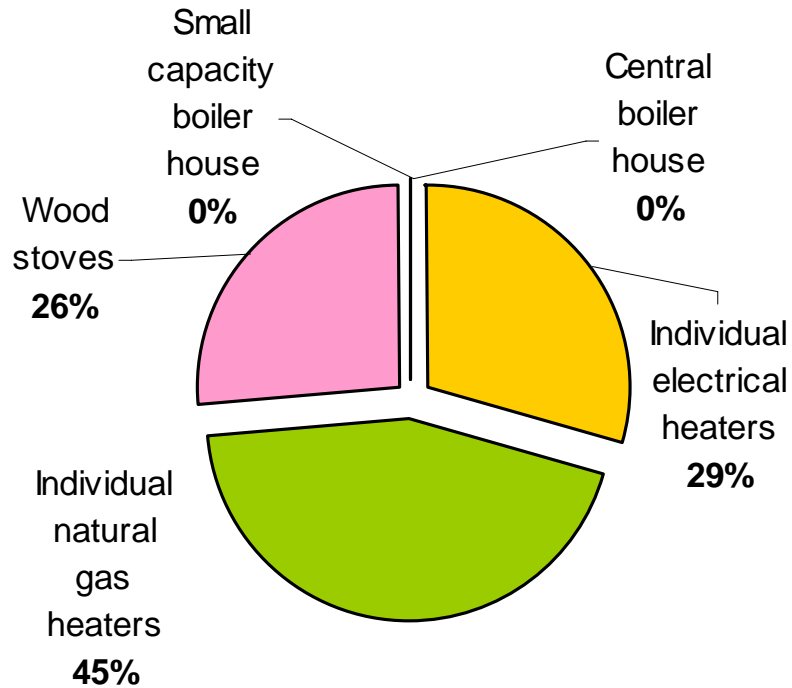


Heating Status in Condominiums

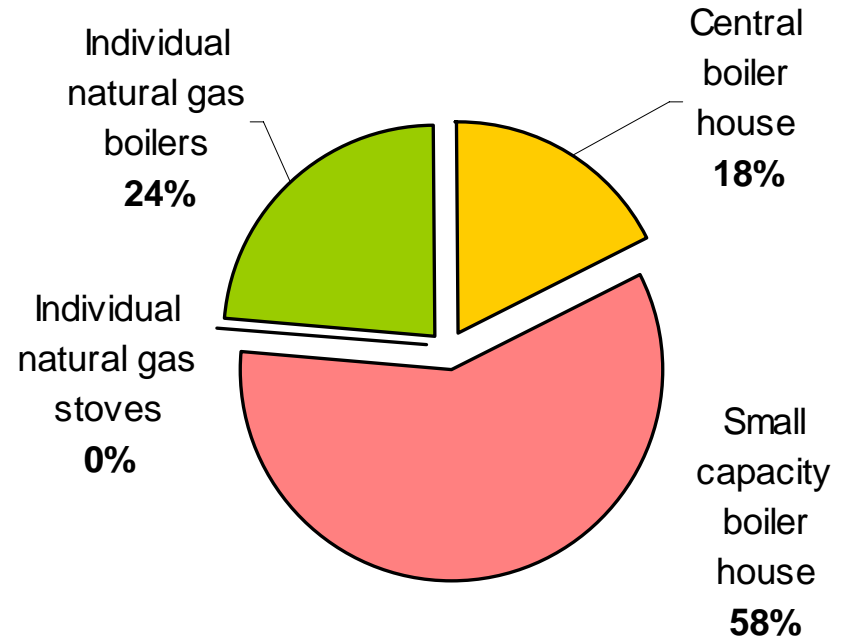


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Existing Heating Systems



Desirable Heating Systems

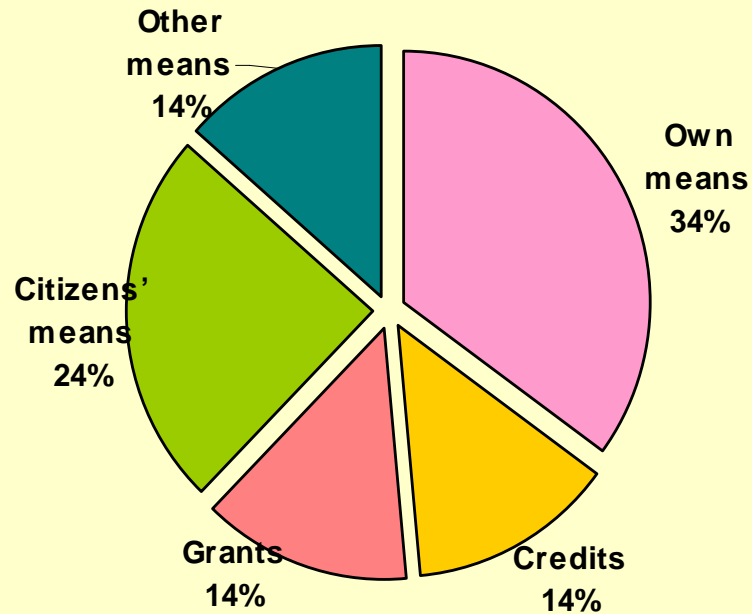


Financing Residential EE

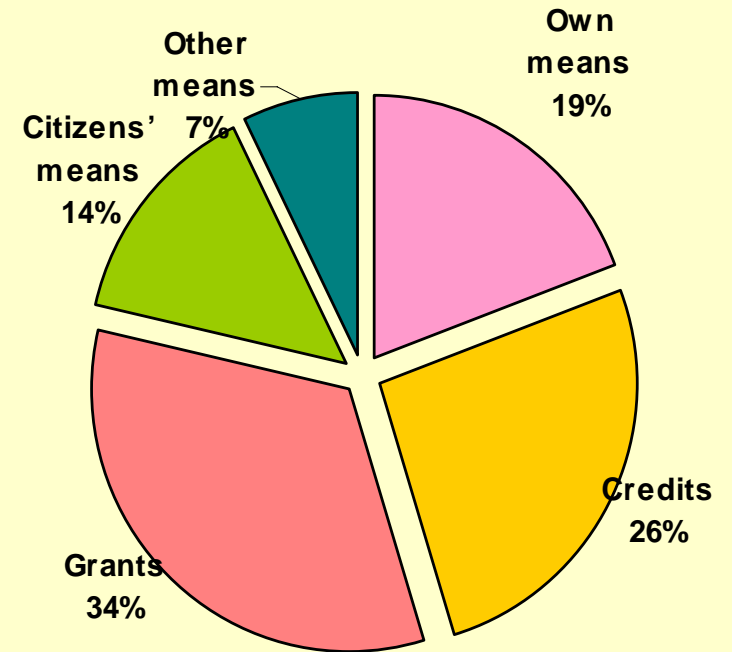


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Percent responses on most frequently used sources of funding for residential EE project



Percent responses on potential sources of funding residential EE projects

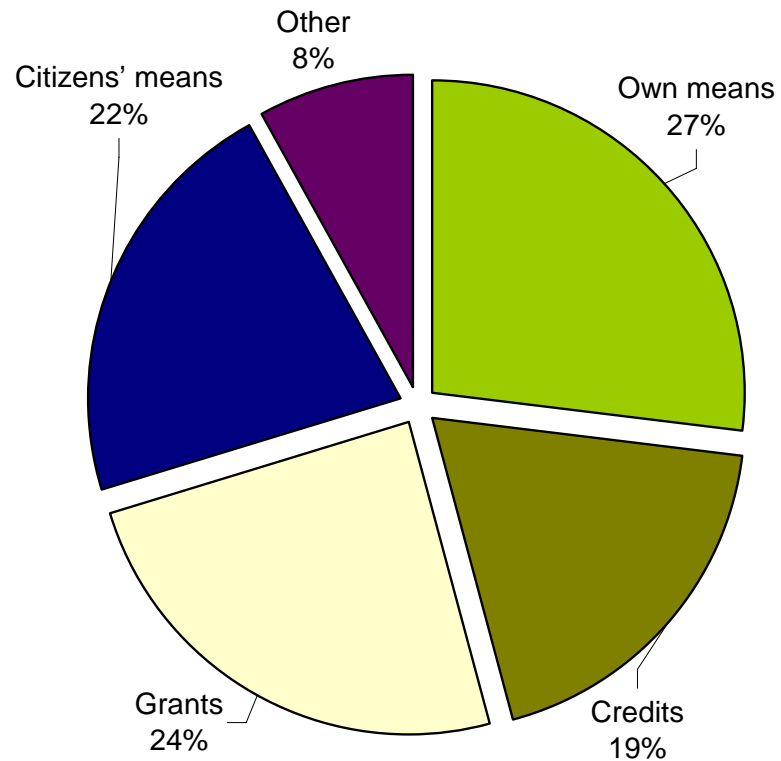


Financing Municipal EE

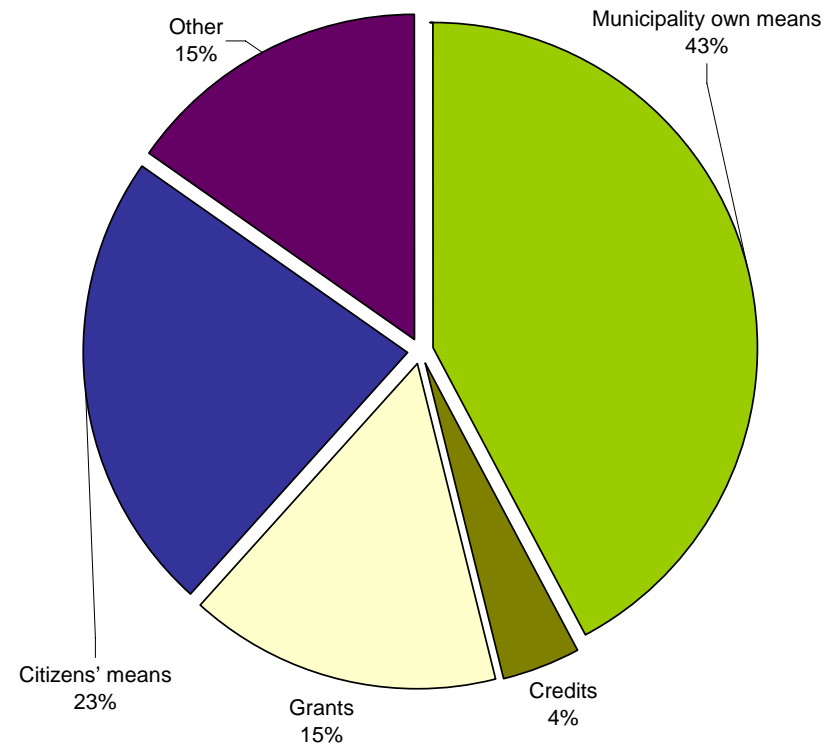


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Percent responses on potential sources of funding for municipal EE projects



Percent responses on most frequently used sources of funding for municipal EE projects



Summary of EE Barriers and Possible Ways to Address them



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- **Financial barriers**
- **Institutional barriers**
- **Consumer barriers**
- **Information barriers**

Financial Barriers (1)

& possible ways to address them



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- The low rate of membership fees collection (small budget);
 - *Compensation with some free work.*
- Loans with high commercial interests rates and short repayment periods;
- Commercial financing is not available for EE projects;
 - *Contracts between Condominium and Utilities (water, garbage) for fee collection (a part of which earns the condominium).*

Financial Barriers (2)

& *possible ways to address them*



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- The absence of any alternative financing source for implementation of EE measures (the banking sector of Armenia does not provide the credits suitable by their terms for EE measures);
 - *Establishment of revolving funds.*
- The absence of any business plans in the condominiums and inability to produce such;
 - *Use of appropriate software, like Building Energy Efficiency Project.*

Institutional Barriers

& possible ways to address them



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- Condominiums suffer from the lack of managerial skills;
- *More training programs on the specific characteristics of successful chairpersons.*

Consumer Barriers (1)

& possible ways to address them



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- Insufficient metering which leads to lack of awareness of energy cost and usage;
- Lack of choice in both fuels and EE technologies;
- Lack of control over energy usage for some consumer;
- *Education and awareness raising.*

Consumer Barriers (2)

& possible ways to address them



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- Ownership of the buildings is not clear – hence lack of incentives to make EE investments, because it is not clear who will benefit;
- Empty/closed apartments;
- *Local governmental bodies involvement.*

Information Barriers

& possible ways to address them



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- Lack of trust in mass media
- Lack of information on EE measures;
- Lack of “success” stories.
- *EE Awareness raising (through the trainings, guidelines, brochures, etc.);*
- *Intensive support and consultancy from appropriate NGOs (NACO, Advisory centers etc.)*

THANK YOU



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