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# **DEVELOPMENT OF SUSTAINABLE MECHANISMS FOR FINANCING ENERGY EFFICIENCY IN EUROPE AND EURASIA**

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***Energy Community***

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## Region's energy intensity remains significantly higher than EU member states

Low Energy Intensity Countries (<0.10 kgoe/GDP in 2011 \$)

- **EU-28**

Medium Countries (0.10-0.20 kgoe/GDP in 2011 \$)

- **Slovakia**
- **North Macedonia**
  - **Kosovo**
- **Montenegro**
- **Georgia**
- **Albania**

High Energy Intensity Countries (0.20-0.30 kgoe/GDP in 2011 \$)

- **Serbia**
- **Bosnia & Herzegovina**
- **Moldova**

Very High Energy Intensity Countries (>0.30 kgoe/GDP in 2011 \$)

- **Ukraine**



## Energy Efficiency (EE) – current financing support mechanisms provided by donors and IFIs

### **INVESTMENT GRANTS:**

grants provided by donors or others representing part of project cost and accompanying bank loans

### **CONCESSIONAL LOANS:**

loans with more favorable terms - interest rate, tenure or grace period - than commercial loans

### **INCENTIVES:**

payments by IFIs to PFIs for extending specified loans to sub-borrowers, or to sub borrowers for using loans for specified purposes

### **RISK SHARING:**

assumption of credit risks by donor-provided funds in specified kinds of lending

### **TECHNICAL ASSISTANCE:**

grants cover cost of consultants and technical services needed to prepare and verify projects

### **INSTITUTIONAL CAPACITY BUILDING:**

support government agencies and civil society institutions with legal, financial, behavioral aspects



## USAID energy efficiency portfolio

### PAST ACTIVITIES:

- EE LAWS, NEEAPS, Legal dialogue
- Municipal energy efficiency, Urban heating
- EE Funds, ESCO support, Credit guarantees

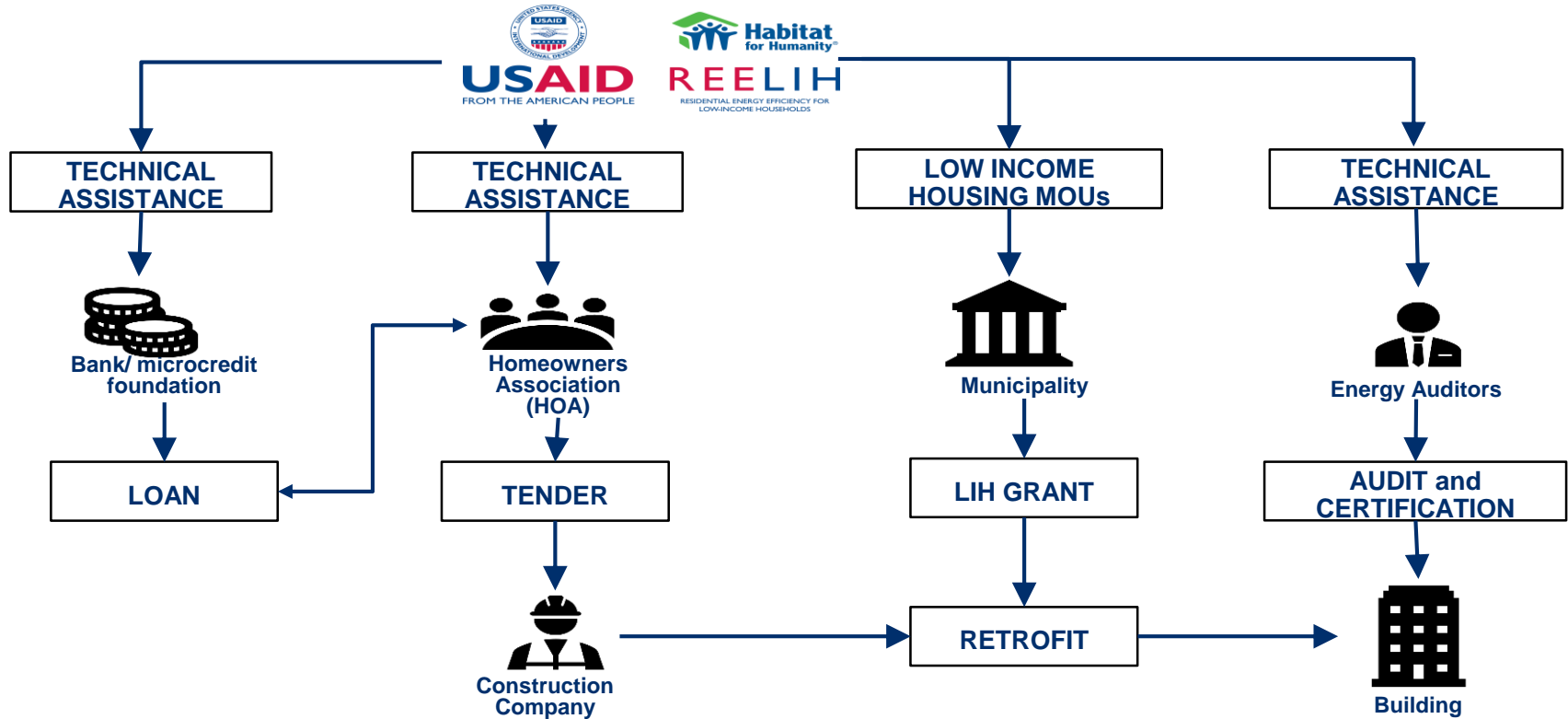
### CURRENT ACTIVITIES:

- Residential Energy Efficiency for Low Income Households (REELIH)
- Industrial energy management  
District heating, Utilities
- Development Credit Authority



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# USAID support of residential energy efficiency investments





## **USAID** development hypotheses

**Citizens (homeowners, business owners, home owner associations) will invest in energy efficiency if:**

- Benefits are understood (improve comfort/productivity, reduce energy costs)
- Investment is economically justified (i.e., reasonable payback time)
- Funds are available to cover initial investment costs (savings, bank loans)
- A functioning legal framework is in place (protect lenders and borrowers)

**Government's role and responsibilities are primarily to:**

- mitigate negative impact on environment,
- reduce dependence on energy import, or
- support economically vulnerable citizens through targeted, limited time subsidies.

**Subsidies and incentives are needed only under very specific conditions.**

- If applied prudently, subsidies function as “startup fuel”
- Otherwise, they cause market distortion and create disincentives to investment



## EE financing support mechanisms study

Analyze currently available financing and support mechanisms for energy efficiency investment, focus on multi-apartment buildings in 3 countries



Compare use of financing support mechanisms across different market segments (public, residential, commercial/industrial) over last 10 years



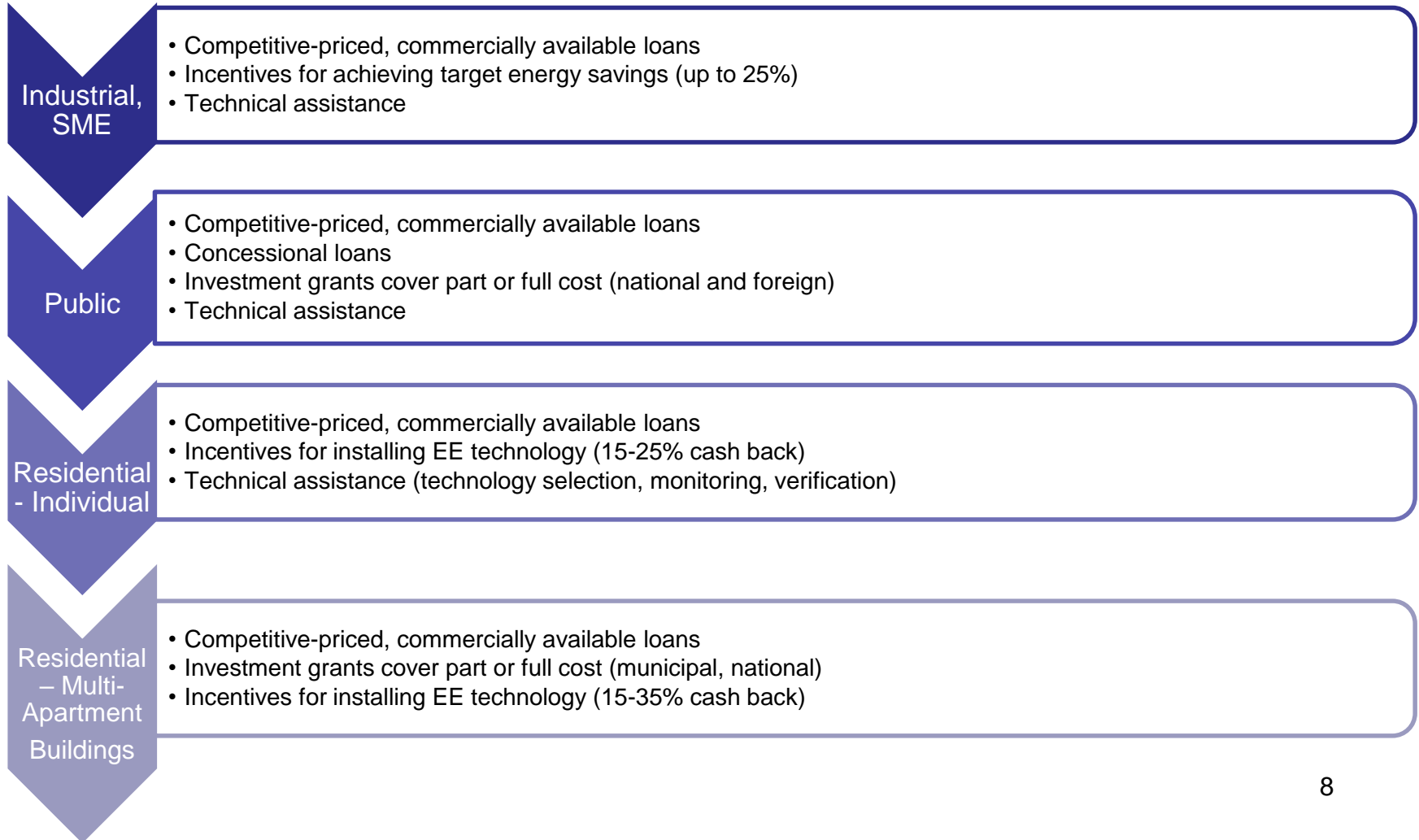
Assess intended and unintended consequences of current financing support mechanisms



Recommend strategies for improving use of financing support mechanisms to achieve sustainable financing of energy efficiency



# Donor and IFI financing support for EE in sample countries







## Estimated market size for EE investments in buildings

	North Macedonia	Serbia	Ukraine
<b>No. of public buildings</b>	2,441	12,470	120,000
<b>Investment needed to achieve NEEAP targets</b>	€95M	€269M	€1.3B
<b>No. of individual houses</b>	471,235	2,186,246	6,500,000
<b>Investment needed to achieve NEEAP targets</b>	€322.8M	€811.2M	€3.5B
<b>No. of multi-apartment buildings</b>	12,000	60,074	240,000
<b>Investment needed to achieve NEEAP targets</b>	€17.1M	€1.7B	€3.0B
<b>Total investment needed across building types</b>	€434.9M	€2.78B	€7.8B
<b>Investments covered by currently available donor/IFI financing</b>	€145.5M (33%)	€458.5M (16%)	€809.4M (10%)

Source: ENSI, 2012; RTI consultant team calculations



## Multi-apartment buildings: EE financing options

	North Macedonia	Serbia	Ukraine
Legal status of HOAs	Weak, which makes borrowing extremely difficult to non-existent	Weak, which makes borrowing extremely difficult to non-existent	Established, and several banks offer commercial or warm loans
Commercial Loan Interest Rate	5-6%	5-6%	20+%
Available Financing Mechanisms	GEFF (25-35% cash incentive available but unused)	GEFF (25-35% cash incentive available but unused)	Warm loans (10-20% interest, 20-40% incentive)  IQ Energy/ UREEFF (40% incentive)



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## Multi-apartment buildings: unintended consequences in Ukraine

- Warm loans have raised awareness of EE: 33,000 registered HOAs, ~1/2 created to access loans
- Incentives cause HOA demand for EE loans to “freeze” when grant funds are not available
- Early repayment of loans is customary, indicating use by wealthier clients or fraudulent use of funds

**“HOAs have never applied for green loans outside of warm credits”**

Ukraine bank representative

**“After getting incentive, they [HOAs] often repay immediately...”**

**Cash savings are near 100%, they essentially wait to apply for loan in order to get the grant.”**

Ukraine bank representative



## Multi-apartment buildings: unintended consequences in North Macedonia & Serbia

- Lending to HOAs is non-existent
- Banks perceive lending to HOAs as extremely high risk due to multiple decision-makers and lack of collateral
- There is no market!

**“GEFF offers HOAs [incentives], but we decided not to offer this sector..”**

**“There is a risk with the HOA as they are not functioning as they must. People don’t even pay their utilities for common areas!”**

North Macedonia Bank representative



## Preliminary findings

- For industries/SMEs and individual households in some countries, EE investment market is functioning well, but presence of grant co-financing **HINDERS** disbursement of commercial loans.
- For public buildings, grant co-financing has not phased out, so the energy efficiency investment market has not commercialized. Notably, some municipalities are borrowing commercially for other EE investments, such as street lighting.
- For multi-apartment buildings, grant co-financing creates expectations that EE is not attractive without grant component. In some countries, financing is not offered to home owner associations, even with grants.



## Preliminary recommendations: strengthen focus on multi-apartment buildings

- Create or strengthen legal framework for HOAs
  - Develop de-risking mechanisms (e.g. guarantee funds) for commercial banks to get comfortable lending to HOAs
  - Blend financing with technical assistance to ensure capacity building and project quality
  - Use general subsidies only when market failures exist or to kick-start new market, and phase-out must be planned
  - Target subsidies to vulnerable consumers and building structural enhancement
- EE investments in HOAs in Slovakia went from 86% grant-funded in early 2000s to 5% grant-funded in 2017
  - Slovak State Fund of Housing Development supported housing renovation, offered soft loans and grants, intermediary between banks and HOAs
  - IFC's CEEF offered partial loan guarantee and TA
  - Grants remain for vulnerable households and structural safety/resilience upgrades



## Next steps

- Expand study geographic coverage
- Explore legal and financing aspects for increasing EE in multi-apartment buildings
- New USAID program under development
  - Address under-served needs that have significant potential to transform energy consumption in region
  - Utilize market approach: risk reduction and technical assistance, without subsidies
  - Cooperate with IFIs on process to develop more sustainable financing mechanisms



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# Thank you

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