LCT deployment in Ukraine
A practice based overview of market barriers to investments

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A Market characterised by structural underinvestment

Sectors’ weight in the energy saving potential

Source: BEST Analytical Centre (2013)

Why LCT investments that would be cost-effective at current energy prices are not conducted?

Source: BEST (2013), IEE (2014)
Barriers to LCT investments

**Financial**
- Upfront cost
- Access to capital

**Technical**
- Lack of local supply chain
- Exchange risk
  - Pumping station n25, Kharkiv
- Cost of import

**Transaction costs**
- Imperfect information
  - Low accuracy – « double counting » in district heating
- Asymmetric information
  - Moral hazard – Oshadbank EE product
**Transaction costs and IFIs**

- **Credence good**
  - Consumption-based billing
  - Metering

- **Experience good**
  - Labelling

- **Search good**

**Particular issue for heating:**
Municipal Heating Project, USAID

**Relevance:**
Prerequisite for any demand-driven investment

**Policy reform:**
Resolution No 702 "On approval of technical regulations on energy labelling“, 2013

**Issue:** absence of trust in information
Exchange rate hedging: new priority?

**Kharkiv pumping station 25**

<table>
<thead>
<tr>
<th>Technical characteristics</th>
<th>✓</th>
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<tbody>
<tr>
<td>Supply chain</td>
<td>✓</td>
</tr>
<tr>
<td>Administrative and contractual aspects</td>
<td>✓</td>
</tr>
<tr>
<td>Energy saving potential – 30%</td>
<td>✓</td>
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<tr>
<td>Operation cost saving – 256k€/y</td>
<td>✓</td>
</tr>
<tr>
<td>RoI – 4 to 6 years</td>
<td>✓</td>
</tr>
<tr>
<td>Upfront financing – 3% NEFCO loan</td>
<td>✓</td>
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Project frozen due to unwillingness of Vodokanal to take a € loan and impossibility of getting a **State guarantee** on exchange rate

**Best practice example: microfinancing**

- **0% financing**
- **IR**
- **Field partner**
- **UAH**
- **Borrower**

**Exchange Risk**
- > 10%
- <10%

**General Benefits:**
1. 0% financing allows for lower IR
2. Currency risk shared
3. Loan in local currency

**Risks for energy loans:**
1. External: « Bad driving out good »
2. Internal: « reinventing the wheel »
Technology transfers and diffusion

• Need to move from Ukrainian **recipients to partners of projects**
  → inclusion of LCR in tenders: *EBRD call for the renovation of district heating systems in 3 cities*

• An « International Aid receivers’ club »
Overestimated institutional barriers

→ Answers Legal Security risks:

1. Defines key notions & terms of the contract: «Energy Service», «Energy Service Contract», contract period, etc...
2. Sets a mechanism for tenders

→ Enables public actors:

1. Allows pluriannual budgetary commitments
2. Guarantees contractors’ payment

- 50% reduction of gas consumption
- 15 years extension of building lifetime
- 3 mln UAH savings per year
- Leverage 200 bln UAH of investments
- Procurement services for 98000 public organizations
New approaches to EE:

Comprehensive approach: 
*EBRD residential EE Facility*

- **Aim:**
  - Insulate 20000 households from rising energy costs
- **Advantages:**
  - Exchange risk mitigation
  - Multi-stakeholder capacity building (ESCOs, policy makers, general public)
- **Risks:**
  - Split incentives
  - Behavioural barriers

Demand-driven approach: 
*OSBB empowerment*

- **Aim:**
  - New law giving competence to request installation of metering and thermostat systems
- **Advantage:**
  - OSBB in 50% of residential buildings
  - Spill-over effect
- **Risks:**
  - Administrative burdens
  - Information cost
  - Split incentives

As much as « hard projects », resource centres are required to disseminate skills and break into the empowerment cycle.
Focus: IEE’s UM2E programme

**Hard pillar**
- Cost-benefit analysis of solutions
- Identification of EE needs
- Analysis of local constraints

**Soft pillar**
- Formulate intent
- Peer-to-peer exchanges and training
- Feasibility study
- Formulate problem
- Give feedback
- Energy advisers' network and energy correspondents

**Strategic action plans and actions playbook**

**Economic rationale + Participatory approach + Inclusive character**
- Cost-effectiveness
- Multistakeholders’ consultations
- Local clusters
Thank you for your attention!

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