



Financing opportunities for clean technologies and energy efficient industries

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Investor

- High upfront and project development costs
- Inability to collateralize assets
- No discretionary budgets for EE intervention
- Limited resources for interventions

Financing Sector

- High transaction costs
- High perceived risks
- not traditional asset based financing

EE Service Provider

- Perceived risk of late/non-payment
- Limited business/management skills
- Limited financing/equity capacity
- Access to market

Well known Financial Barriers to Energy Efficiency Investments (1)

- ❑ **Commercial banks** are not familiar with financial and technical issues involved in EE projects and perceive the **risks** to lending to municipal and other public entities to be **too high**.
- ❑ The excessively risk-averse bank behaviour, high collateral requirements and lack of viable delivery mechanisms have also constrained EE financing.
- ❑ As with many post-Soviet states a **culture of commercial financing and credit is lacking due to low** trust in local bank.
- ❑ General **high financing costs** (interest rates, risk premium, transaction costs,...), especially for SME with low inhouse capacity and resources.

Well known Financial Barriers to Energy Efficiency Investments (2)

- ❑ **Underdeveloped market conditions**, including limited demand for EE goods and services, high project development costs, limited experience and capabilities of EE service providers
- ❑ **Institutional constraints**, such as limited short term incentives to invest in EE, limited awareness of and knowledge about EE opportunities, lack of credible data, limited staff capacity and motivation, etc.
- ❑ **Unattractive financing terms**, over collateralization, high transaction costs, going along with low trust in local banks
- ❑ **Lack of suitable and sustainable financing mechanisms** tailored to market needs offered by local banks

Benefits of EE investments need to be communicated

- Reduced running costs** (energy & maintenance costs) will become more and more relevant due to increased energy tariffs
 - Increased production capacity** due to modernization of production lines will lower risk of loss of production and increase predictability of business services
 - More reliable security of production and increase of performance and quality** will increase competitiveness especially on international level
 - Improvements in environmental impacts**
 - Financing costs** will become more attractive for investors since risk surcharge in financing will be significantly reduced
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Public Interventions to boost EE financing

- **Encourage financial sector to develop dedicated banking products for EE investment**
local banks shall be motivated to provide affordable financing products to clients who are willing to invest in EE equipment or intervention
- **Establish EE Fund** with clear regulations close to market needs
- **Provide smart designed incentive schemes dedicated for SME**
- **Strengthen international cooperation**
- **Facilitate and communicate duplication and roll out of successfully implemented projects** in a large scale in various sectors
- **Establish market for EE services**

Which mechanism works well...

Fits well if:

- Private sector with financial capacity and creditworthiness

Mandatory:

- Supportive policies and enabling environment
- Sufficient number of market players

Pro:

- Early market development through public sector projects
- Development of public-private partnership

Cons:

- Serves only very creditworthy public agencies
- ESCO industry is difficult to develop
- Public procurement issues

Advanced commercial or project financing (ESCOs)

Vendor credit, leasing

Commercial financing, bonds

Partial risk guarantees

Credit line with commercial bank(s)

Credit line with development bank

Public or Super ESCO

EE revolving funds

Utility (on-bill) financing

MOF financing w/ budget capture

Budget financing, grants w/ co-financing

Grants

Source: The World Bank, 2016

Some Examples Financing Facilities

- E.g. EBRD programs in Russia, Ukraine, Caucasus, etc.
- Supported large investments in industry with energy audits and access to financing;
- Improves project quality and capability of stakeholders involved
- Lending to market condition via local banks can not fully overcome financing barriers in local markets

Some Examples ESCO's

- e.g. a number of projects in Russia, Ukraine, etc.
- In general a very promising business model in absence of financing capacity
- Implementation is critical due to a number of preconditions such as:
 - Regulatory framework such as energy tariffs
 - Experience of project developer
 - Access to financing of service provider
- Underdeveloped market penetration
 - Limited number of successfully implemented projects
 - Technical constrains
 - Poor project management
 - Low motivation for long term agreements

- Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation is a key for economic growth
 - Industrial sector has been slow in greening production processes in recent years
 - Change is needed to:
 - Green economy and reduce GHG emissions
 - Energy costs have risen and will further increase considerably in recent years, placing greater strain on national economies and all businesses, especially SMEs.
 - Foster competitiveness of local business in international markets
 - Financial instruments are available but need to be tailored to individual needs
 - Local banks are not yet equipped with mandatory tools, capability and mind set to drive markets in greener directions
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