



**UNEP Finance Initiative**  
Innovative financing for sustainability

**Executive summary**

# **Energy efficiency and the finance sector**

**A survey on lending activities  
and policy issues**

A report commissioned by  
UNEP Finance Initiative's  
Climate Change Working Group

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# **Energy efficiency and the finance sector**

A survey on lending activities and policy issues commissioned by UNEP Finance Initiative's Climate Change Working Group

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# Executive summary

High and volatile oil prices, steadily rising demand for energy, and global imperatives, such as climate change, have created significant renewed attention to energy efficiency – both in the policy and commercial world.

UNEP Finance Initiative sought to provide an evidence base on current lending activities in the energy efficiency space, as well as, views on this issue, through a survey among financiers. Identifying market activity and where market failure is occurring, from a finance and investment perspective, is critical in formulating appropriate policy responses from governments, as well as, signaling how financial sector actors may move forward.

Insights were sought through a series of structured interviews with a range of mainstream public-sector and private-sector financial institutions, as well as two specialised financial service companies. This is an indicative set of financial institutions (FIs) rather than a comprehensive review of all activities or geographies in this area.

The survey explored:

- Whether and how external drivers to reduce energy use on the supply and demand side are impacting lending activities, both in terms of client demand, due diligence procedures, and new product development;
- Specific financing issues for energy efficiency;
- The role of government regulation in developing this market;
- Other issues relevant to the evolution of energy efficiency financing and investment.

The definition of energy efficiency (EE) was left deliberately broad in order to capture the widest range of activities possible. However, from the outset it was recognised that energy efficiency would fall into two main categories: firstly, specific activities to deliver energy savings, for example, through entities such as energy service companies (ESCOs); and secondly, activities and opportunities that are spread throughout the entire spectrum of banking operations. It was anticipated that the latter may not be defined as energy efficiency per se, and this was reinforced during the survey.

The following section on **key findings** is structured, in analogy to the overall report, as follows: current market activities, key external and internal drivers including specific barriers raised, financing issues, and policy and regulatory issues. These are followed by a set of **core recommendations** both to financial practitioners and policy-makers.

The full report can be downloaded from:

**[http://www.unepfi.org/fileadmin/documents/Energy\\_Efficiency.pdf](http://www.unepfi.org/fileadmin/documents/Energy_Efficiency.pdf)**

# Key findings

## **Current market activities**

### **Public-sector financial institutions**

Public-sector FIs are leading efforts to mainstream EE into their institutions, and to develop financing tools and options for a specific range of energy efficiency activities. This is primarily due to the government mandate and resources that enable these institutions to offer, for example, lower interest rate finance, grant-finance for technical services - both internally within the FI and externally - such as energy efficiency audits, and other forms of assistance to private and public sector clients. The scale of effort varies across institutions, as does the level of experience and focus to date. Activities are not limited to developing countries; Germany and France, for example, have public-sector FI programmes aimed at stimulating national EE activities in specific domestic market segments.

### **Private-sector financial institutions**

Private-sector FIs are very interested in EE ("perhaps the next goldmine"), which is consistent with existing sustainability commitments or renewable energy lending programs, yet find it difficult to get the level of scale and financing opportunity required to make specific energy efficiency activities commercially attractive, particularly in the context of project finance. In general, there was little evidence of dedicated activities by private-sector FIs in this area. The exception, in this survey, is in the US, where state and federal regulation has provided conditions for the development of business models based around energy service performance contracting.

On the other hand, funding for EE activities may be folded into more general borrowing activities - e.g. corporate, consumer, or municipal finance - or be described as "modernization" or "refurbishment", and may therefore not be visible as energy efficiency efforts by the lender. This makes it difficult to assess the scale of activity or demand and, more broadly, raises important questions about definitions.

### **Innovators**

Innovative financing methods are being developed, amongst others, by specialised commercial finance providers. These include new models to enable significantly scaled-up financing opportunities for energy service providers in developing countries, and integrated 'single contract' financing for energy efficiency and renewable energy in the US.

## **Key external and internal drivers**

### **Energy prices and power shortages**

High and volatile oil and energy prices, as well as severe power shortages in some countries, are generally important drivers for energy efficiency, particularly noted in energy intensive parts of the industrial sector where energy expenditure can be a very significant part of operational costs. These drivers are creating an increased general interest in taking commercial advantage of EE opportunities.

However, as confirmed by survey participants, the groundswell of general interest observed does not in itself produce specific, bankable EE options, without other factors being in place.

### **Demand for energy efficiency**

Despite high and volatile energy prices, energy security issues, and awareness of climate change policy drivers, there is a mixed picture of actual demand for energy efficiency both from private and public-sector clients.

Where grant-finance and/or subsidized EE services and finance are available, publicsector FIs still require external marketing to clients and internal marketing to other parts of the financial institution in order to create interest and demand for those products and services. This may reflect the relative lack of track record of many FIs in the area, although it should be noted that some FIs, notably in the public-sector, have made extensive, market leading efforts to mainstream EE throughout the financing activities of their institutions.

Private-sector FIs found that energy intensive sectors are leading demand; this was, however, not a uniform picture as many FIs have not seen demand increase for EE-related lending at all. This could be due to the FI's particular client base, or the sections of the FI involved in the survey, such as project finance- or 'sustainability' departments, and whether they would be in a position to observe actual increased client interest for energy efficiency finance. In contrast, when clients are tackling EE improvements through general corporate finance, as described further below, on the lender's side these are unlikely to show up as energy efficiency related efforts. However, this mixed picture may also indicate that energy efficiency improvements simply remain a relatively low priority in many parts of the economy.

Internally, the trend for private sector FIs is to give increased priority to sustainability and climate change, and many have begun to assess how these factors can be mainstreamed into business activities. This, however, takes time to operationalise and does not, per se, include efforts to offer energy efficiency finance. Internally, most institutions interviewed already have in place corporate energy use targets.

## **Financing issues**

### **Energy service companies**

In the field of dedicated energy efficiency finance via energy service companies (ESCOs), a range of well documented challenges are encountered. ESCOs are generally companies which offer energy demand reduction services, often financed through so-called 'performance contracting', where the energy savings generate cash flow which pays for the installation of the equipment and a margin. Highlighted in this survey were the following challenges:

- **Scale** – individual projects are considered to be too small to be commercially 'interesting' for mainstream private-sector FIs. However, one FI specialised in energy services is developing

methods to streamline and aggregate individual EE projects to enable project finance scale. Another FI highlighted the need for a stronger policy environment to establish the conditions that will attract large-scale ESCO activity.

- **The “asset” problem** – energy savings, which underpin the usual ESCO business proposition, are not a conventional ‘asset’ against which a bank will lend. In other words, cash-flow from energy savings is not a familiar form of revenue or collateral to back lending (although clearly any additional equipment provided would be an asset). This means that FIs, particularly local FIs, need to become familiar with the nature, as well as the performance and credit risks of energy savings financed projects in order to be comfortable with providing debt. Despite not being uniformly available, partial-risk loan guarantees aimed at reducing these risks and facilitating finance, particularly in developing countries, represent an effective approach.
- **Lack of loan/credit guarantee mechanisms** – linked to the above, loan/credit guarantee mechanisms can play a key role in facilitating finance, particularly for smaller scale ESCOs. Experience from some actors, however, indicates that the guarantee schemes that exist today are for larger amounts and involve a “tedious and long process for approval”. Developing lean credit guarantee mechanisms tailored to smaller-scale projects would help address this deterrent to EE lending activities.

### **Carbon finance**

Linked to carbon savings achieved through emissions reduction projects, carbon finance has played a mixed role in stimulating EE projects so far. While some of the FIs closely or increasingly link EE with carbon finance, or have carbon emissions as a primary motivation (structurally within the institution, or at project level), others establish no such link, even where the institution may have dedicated carbon activities, such as trading. New possibilities of generating carbon credits at larger scale are opening up, notably through programmatic approaches under the Kyoto Protocol’s Clean Development Mechanism (CDM), thus enabling larger scale activities beyond the current project-by-project structure; at least one private-sector FI in the survey was developing options for energy efficiency using this avenue.

### **Local financial institutions**

Local FIs have a key role to play in EE financing, particularly in developing countries but also in OECD countries at regional bank or retail level (e.g. mortgage finance and property). Ensuring that these institutions are able to understand the characteristics of different parts of the EE market, and that options for engagement are commercially attractive, will be crucial to rolling out financing at scale.

### **Time and resources**

Time and resources are required to assess opportunities and to develop appropriate financing products across FIs. For public-sector FIs, mandates to do this are mostly in place and generally include a basket of issues alongside activities related to sustainable energy and carbon finance, reflecting broad external drivers for energy efficiency; let us note, however, that resolution around EE specifically is advised.

On the other hand, for private-sector FIs, board level policies needed to enable the mobilization of resources are generally not in place. The dedication of time and other resources is, however, essential to examine and understand new EE opportunities, in the context of FIs’ activities, and to (re)develop relevant financial products and due diligence procedures across FIs’ divisions.

## **Policy and regulation**

Serious market failures exist in most jurisdictions. The perception is that governments are not providing a clear and compelling set of targeted policies and incentives to pursue EE options across the economy at a meaningful scale. The rapid, policy-led growth in renewable energy (RE) investment in many countries was highlighted as a positive example that should be emulated.

EE targets alone, even if stringent, however, are insufficient if they are not incentivised appropriately, implemented on the ground effectively or integrated with other parts of a sustainable energy policy to ensure policy signals are not conflicting. Reliance solely on high energy prices is equally insufficient. This is one of the fundamental findings from survey participants: prices alone are not sufficient to overcome barriers. In a policy context, there is no ‘silver bullet’ or new single policy that could do the job alone; what is required is the development of systematic EE targeted policies, incentives and implementation efforts across different sectors.

### **Vis-à-vis public-sector financial institutions**

For public-sector FIs the government mandate has been at the helm of the development of EE activities, although the ability to roll out services, generate projects or accelerate demand will also be governed by the external regulatory environment. Several positive examples were given of public-sector finance being used, often in combination with private-sector finance, to develop the underpinnings of a dedicated EE market, including: the development and offering of risk reducing tools, the promotion of increased local financial institution capacity as well as the introduction of standardised monitoring and evaluation systems for EE which reduce transaction costs and facilitate the use of carbon finance. Albeit innovative and of high value, such ‘public-private’ activities are so far not operating at a significant scale.

### **Vis-à-vis private-sector financial institutions**

For private-sector FIs, the policy and regulatory environment remains a key aspect of stimulating investment activity in this area. Government policy will play a central role in bringing to the attention of FI boards the seriousness of EE activities as part of the energy landscape, and creating the conditions such that the resulting value can be captured commercially.

### **Government – “lead with own estate”**

Governments, arguably, have the most immediate interest in EE and are in a position to take early and thorough action in relation to their own estate, facilities, institutions and funds. Additionally, the specificity of the mandate they provide to public-sector FIs, the incorporation of energy productivity into broad macroeconomic goals and policy, as well as the ‘demand’ for EE services from the public sector are all important avenues for further signaling the priority of EE, and creating an environment conducive to increased EE efforts.

# Key recommendations

## For the finance sector

- Establish explicit board level recognition of energy efficiency within the core business strategy of the FI, as well as within sustainable energy or climate change strategies.
- Formulate a board-level mandate to establish dedicated EE resources and competences, in order to:
  - analyse the institutional opportunity across the range of relevant operational divisions (corporate, retail /mortgage, project finance, etc.),
  - develop options for financial products, and
  - further these options internally.
- More specifically, assess the opportunity to institutionalise a systematic ‘energy efficiency audit’ process on loans to projects or clients in key energy-using sectors in order to systematically capture EE gains at the very outset of operations and to deepen client offerings.
- Create the opportunity for FIs to work together on the development of technology EE standards and benchmarks in order to standardise approaches and facilitate financing and technology transfer.

## For policy makers

- Ensure policy consistency towards EE through an integrated sustainable energy policy framework explicitly designed to incentivise bankable EE opportunities, at meaningful scale, and targeted to relevant sectors. The development of such frameworks will require a thorough audit of EE barriers and perverse regulatory structures.
- Formulate clear board-level mandates in public-sector finance institutions and equivalent entities at local and sub-national level. Such mandates must aim to internally establish dedicated EE competence and resources and to systematically pursue EE efforts across financial operations by means of, for instance, mandatory energy efficiency audits on all relevant transactions and spending.
- As relevant, explicitly include EE in economic development strategies being discussed with public-sector FIs. Particularly, focus on leveraging EE into specific policy and regulations governing energy and infrastructure development, but also into broader policy on overall economic development.
- Examine whether an amendment to OECD guidelines for export credit agencies would facilitate appropriate loan offerings to energy savings technologies or services, in light of the recent decisions in the area of renewable energy;
- Induce a meaningful demand for EE services and finance by targeting public institutions and facilities for large-scale retrofit programs to kick-start market activity. As a second step, further develop the private-sector market for EE services and products, through, for example, specific incentives or regulations around performance contracting, or programs supporting commercial utility activities in this area.

# Contents of the full report

The full report can be downloaded from:

**[http://www.unepfi.org/fileadmin/documents/Energy\\_Efficiency.pdf](http://www.unepfi.org/fileadmin/documents/Energy_Efficiency.pdf)**

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