

# Sustainability Outlook

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Sustainability Reporting

Extended Producer Responsibility

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Green Leap needed to shape global leadership



Moving from operating defensively,  
to capturing advantage

# CAPTURING ENERGY EFFICIENCY MARKET ADVANTAGES



Jyoti Deka,  
Senior Associate,  
cKinetics.

## Energy Efficiency Market

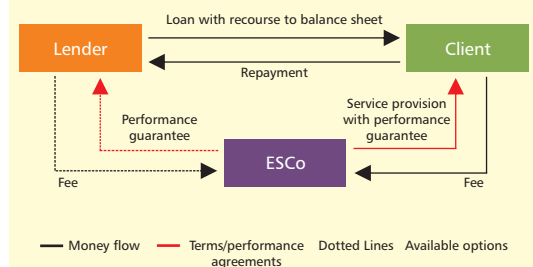
The market for energy efficiency products and services in India has gained momentum in recent years. This is both due to regulatory impetus and commercial incentives for energy savings as the push for green building and industrial process efficiency is being seen in a new light. Energy saving projects in existing buildings and energy intensive industries in India could offer interesting capital investment opportunities. It is estimated that such projects could save up to 49 billion kWh for industries and another 4.5 billion kWh in commercial and municipal buildings per an estimate by the Asian Development Bank in 2008. The eleventh five year plan included an estimate of about 10,000MW of saving through energy efficiency and the combined savings potential in monetary terms as per a World Resource Institute study in 2008 was estimated to be around USD 9.8 billion.

Energy efficiency projects often involve an energy saving performance contract between the facility owner and a service provider, called the Energy Service Company (ESCO). The performance contract contains legal provisions between the two parties and lays out code of best practices, liabilities, default conditions and remedies, indemnification provisions and insurance requirements. The ESCo carries out design and implementation of the project and this can take several forms including retrofits, process design and modification, installation of new equipment as well as control and management systems.

Two primary contracting models are available to consider between the facility owner or the client and the ESCo, such as Guaranteed saving model, where the ESCo guarantees the performance of the saving to the client who finances the project; Shared saving model, where the ESCo undertakes a greater risk by agreeing to a share of saving from the project as its return.

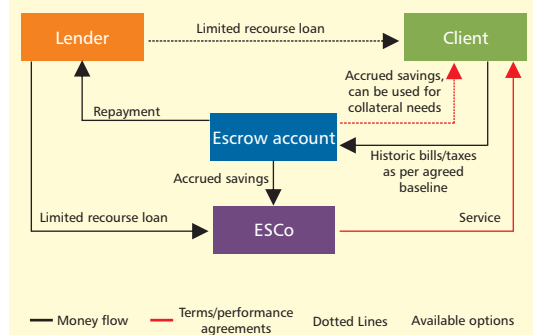
In the first saving model, as graphically illustrated below, the client and ESCo assumes the financial and the performance risk respectively. The capital is raised by the client alone.

Figure 1: Guaranteed saving model



In the shared saving model, the ESCo brings the capital and subsequently shares the energy saving from a baseline with the client to realize its return.

Figure 2: Shared saving model

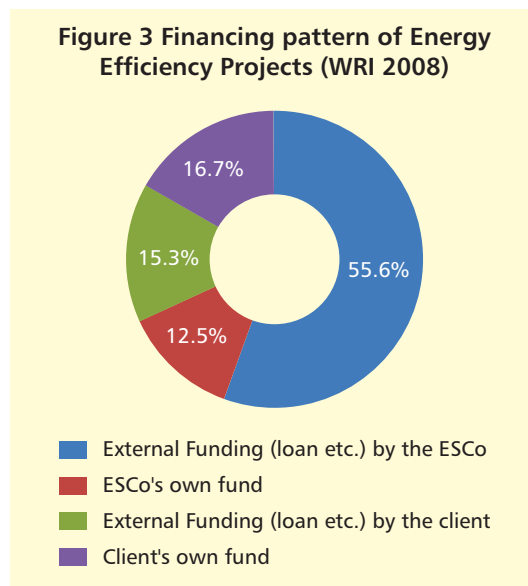


“ESCOs need to reflect on shaping holistic energy management solutions so as to differentiate themselves”

In India, the first model of guaranteed savings has been more popular. On most occasions, the client either raises money from the market or receives lines of the credit from financial institutions to fund such projects. Lending institutions often do not differentiate the investment in energy efficiency projects from traditional asset base lending and need to be sensitized to the savings potential of the projects. This indicates the need for information dissemination and capacity building amongst financial institutions for energy efficiency projects and their potential returns.

In situations where the client is unable to finance, larger ESCOs, owing to their stronger asset base and balance sheet, may still be willing to consider a shared saving model. It is the smaller ESCOs whose options become limited due to the lack of collateral or recourse to produce before the banks for funding.

#### Financial support for EE projects



A survey conducted by the World Resource Institute couple of years back revealed that most of the energy efficiency projects in India were funded by the ESCO themselves through external borrowing thus the credit worthiness of an ESCO is a key criterion for it to raise finance. This is followed by funding from the clients on their own sources and then through external borrowing by them. The least number of projects are being financed through ESCOs' own funding. The other aspect is the role of external financial institutions who act as lenders for a vast majority of the projects. There are certain financial barriers that exist currently primarily resulting from lack of information and

awareness among lending institutions not familiar with the specifics of energy efficiency projects. This proves to be a hindrance for the appraisal and management of such projects. Moreover, as noted earlier, there are perceived risks in lending to ESCOs who may lack sufficient financial strength.

Financing support for energy efficiency projects is increasingly being made available in form of catalytic financial instruments such as dedicated credit lines and partial credit guarantee programs. In a recent development, the Asian Development Bank (ADB) has collaborated with ICICI Bank (a commercial entity) to create a USD100million credit line for small to medium-sized renewable energy and energy efficiency projects in India. Earlier, the World Bank provided a line of credit of USD 350 million to ICICI Bank for investment into energy efficiency area. The World Bank has also provided the Indian Renewable Energy Development Agency, IREDA, a line of credit and technical assistance which the IREDA has utilized to offer soft loans for ESCO projects.

Partial risk or credit guarantee, on the other hand, is an instrument employed by a public entity, typically a development financial institution or a donor agency, to assume the risk of default in such projects thus covering the private players who may implement such projects. This improves the private sector participation and lending in the sector as debt service default is covered by such guarantee programs. The Bureau of Energy Efficiency, India's regulatory authority on energy efficiency programs, has introduced a partial risk guarantee fund to meet at least 50% of non-repayment of an entity's debt in energy saving projects. The purpose has been to raise the confidence among commercial lending institutions for debt portion of an investment and encourage private participation in such projects.

#### Capturing advantage

The ESCO industry grew by around 95.6% annually during the 10th five year plan and almost at a similar pace in the 11th five year plan period. This perhaps reflects the growing concerns about rising energy bills and conservation efforts among energy intensive facilities. There still appears to be a gap in the technical capacity of ESCOs which have constrained demand for such services and causes lack of confidence about them. The client often requires comprehensive energy management services on its process and operation instead of technical retrofits which

“Catalytic financial instruments are required to incentivize financing of energy efficiency projects”



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most ESCos currently offer. Therefore, ESCos need to reflect on shaping holistic energy management solutions so as to differentiate themselves and capture market advantage. To that end, ESCos may also provide advisory as well as enterprise management services to the clients and facilitate access to investors and financial institutions.

Lack of capacity, awareness among financial entities, appraisal and management of risk and development and transaction cost are key areas that need to be addressed to convert this potential into a sustainable advantage. Banks and other financial institutes often prefer collateralized assets instead of future cash-flows in terms of realized savings in energy costs. This indicates a necessity to educate such institutions of unique characteristics of energy efficiency projects and build familiarity of risk and return aspects for such investment. Mature energy efficiency market such as the United States has seen emergence of specialized financing institutions dedicated to energy saving projects. Typically they involve larger project cost and aggregation of implementation projects so that development and transaction cost are minimized. In that light, if more and more financial institutions adopt such an approach, then aggregated financing barriers will be overcome for energy efficiency projects.

*Jyoti Deka is a Senior Energy Analyst at a sustainability consulting firm, cKinetics. He has professional experience in the energy sector and has successfully completed consulting assignments for the EMEA and North American clients. Jyoti has a B.Tech. from National Institute of Technology Karnataka and an MSc from Imperial College of London.*

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