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# POWERING UP

The Investment Potential of Energy Service Companies in India

# I. Executive Summary

## Box 1. What Is an ESCO?

An ESCO is “a company that provides energy-efficiency-related and other value-added services and for which performance contracting is a core part of its energy-efficiency services business.”<sup>1</sup>

### Notes

1. For this publication, we adopted the definition of an ESCO from two leading authorities and associations on ESCOs in the United States: the Lawrence Berkeley National Laboratory (LBNL) and the National Association of Energy Service Companies (NAESCO).

## Box 2. Information and Data Sources

The information and data used for this publication were derived from three sources: (1) a survey that WRI conducted among ESCOs in India; (2) interviews of selected ESCOs, financial institutions, ESCO clients, prospective ESCO clients, and government entities; and (3) secondary sources. WRI's survey included only those ESCOs that have had at least one client contract in hand and met the aforementioned ESCO definition. Based on these criteria, we identified twenty-six ESCOs, twenty-four of which responded to the survey (see appendix B for more information on WRI's survey and methodology).

Against a backdrop of national concern about climate change and rising oil imports, interest in implementing energy efficiency initiatives has been increasing in India's government, business, and investment sectors. Both government policies and efforts by multilateral and bilateral organizations to conserve energy across a wide range of sectors have contributed to new domestic and international energy efficiency companies to serve this market. This expansion over the last half decade has in turn led to investors' interest in funding the energy efficiency sector. The potential for energy savings is enormous: an estimated 183.5 billion kWh per year, based on reports prepared by the Asian Development Bank and the Indian Bureau of Energy Efficiency (BEE).

One subsector within the energy efficiency industry that can help deliver both energy savings and financial returns in India is the specialized energy service company (ESCO) industry (see box 1).

In other emerging countries, ESCOs have made significant contributions to energy efficiency programs and local economies. In Brazil, such companies produce annual industry revenues of USD 344 million (2008), and in China, USD 121 million (2006). In both countries, the industry is growing at double-digit rates.

The purpose of this study is to provide a better understanding of the potential of India's ESCO industry in order for financial investors to make better-informed investment decisions. We describe lessons from the ESCO industries in Brazil, China, and the United States and analyze factors that could either contribute to or hinder the growth of the Indian ESCO industry. We also assess the industry's growth potential and look at three case study examples. Last, we summarize the key issues and opportunities and make recommendations to increase the industry's attractiveness to investors.

Our ultimate aim in driving greater investment in the ESCO industry is to reduce greenhouse gas emissions and contribute to a more sustainable development in India and across the world.

## SUMMARY OF FINDINGS

India's ESCO industry has grown steadily and significantly over the past five years; we estimate a compounded annual growth rate of 95.6 percent from 2003 to 2007. Our data and analysis indicate that this still young industry has a high investment potential for debt investors (see box 2 for our information and data sources). The majority of ESCOs' energy efficiency projects have payback periods of less than two years, and ESCOs save clients an average of 20 to 25 percent on baseline energy costs. Currently, opportunities for equity investment in India's ESCO industry are generally limited to direct investment in the larger

energy service companies, most of which are vendor ESCOs – those ESCOs affiliated with or owned by an equipment or control manufacturer. Larger energy service companies (revenues of USD 0.2 million and above) report no problems with funding projects, although some of their clients may still have some difficulty when clients are providing the financing.

Smaller ESCOs, however, have had difficulty because they lack the collateral to meet bank requirements. Moreover, some prospective clients are unwilling to finance, or cannot obtain financing for ESCO projects owing to a lack of confidence in energy service companies' capabilities and/or reluctance to take risks. A particular concern raised by prospective clients was the industry's domination by "vendor" ESCOs that are technology biased (i.e., offer only one technology and suite of products), rather than providing comprehensive energy management services. Another barrier that we found was Indian banks' lack of engagement. In order for ESCO clients to be able to obtain market-rate financing for energy efficiency projects, banks must recognize the savings potential that an ESCO's involvement can offer.

### **SUMMARY OF RECOMMENDATIONS**

WRI's analysis indicates that the following actions can help the ESCO industry become more attractive to investors and realize its market potential:

For equity investors, banks, and other financial institutions:

- Pilot financial products targeted at ESCOs and energy efficiency projects.
- Include an energy efficiency and an ESCO component in existing credit guarantee funds for small- and medium-sized businesses.
- Invest in ESCOs with good credit ratings (banks) or high revenues/growth rates (equity investors), and explore other financial support mechanisms (banks/other financial institutions).

For government:

- Consider the clean energy sector to be a priority for the banking sector.
- Follow through on the 2001 Energy Conservation Act's mandate to create state energy conservation funds.
- Create energy efficiency mandates related to the 2008 National Action Plan on Climate Change.
- Develop and approve monitoring and verification protocols for energy efficiency, especially for projects undertaken by government agencies, such as water pumping and street lighting.

For energy service companies:

- Establish a strong, inclusive national association to increase the industry's credibility, to lobby for its needs, and to coordinate other organizations' efforts to support its growth.
- Focus on developing technical skills in a few industries or technology streams in order to build expertise and increase value to customers.
- Develop cogeneration and captive power generation capabilities to expand opportunities for projects in these untapped sectors.
- Utilize enterprise development and investment facilitation programs that can provide business advisory services and access to investors.

For enterprise development programs:

- Provide business advisory and investment facilitation services to ESCOs and work with banks to develop pilot products to finance them.