Often times, in developing country markets, energy efficiency projects cannot access funds easily and investors lack interest in these kind of projects. Key to promoting energy efficiency is fostering corporate awareness, supporting energy efficiency market leaders and innovative delivery mechanisms, and easing access to local commercial banks. The Three Country Energy Efficiency (3CEE) Project has contributed to bringing energy marker practitioners and stakeholders together to promote energy efficiency projects in Brazil, China, and India by easing typical investment requirements of financial institutions. The project, begun in 2001, is a joint initiative between the World Bank, United Nations Environment Programme and partners in these three countries and is supported by the Energy Sector Management Assistance Programme and United Nations Foundation.

As a result of this activity, a large-scale energy efficiency project, to be financed through local financial intermediaries, is being prepared for China and is expected to result in lifecycle energy savings of 45 million tons of coal equivalent. Five of India’s largest banks – holding 35 percent of the country’s total bank assets – have introduced new energy efficiency lending programs targeting inefficient small and medium enterprise clusters. In May 2006, the Development Bank of Brazil established a credit line to guarantee 80 percent of the credit risks in energy efficiency projects to be implemented in coordination with the Brazilian Association of Energy Service Companies. (http://www.3countryee.org).

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Doing More with Less Through Energy Efficiency

Improved energy efficiency in buildings, industry, and transport could lead to between 17 and 33 percent lower energy use by 2050, according to the International Energy Agency (IEA). Between 1990 and 2006, the WBG financed investments in energy efficiency totaling US$2.9 billion for over 140 projects in more than 50 countries. Building on experiences in core energy supply sectors, the WBG seeks to adopt a comprehensive, multi-sector approach to tap into efficiency opportunities in transportation, industry, households, education, health, agriculture and rural sectors.

Fiscal year 2006 projects in energy efficiency encompass end-use and supply-side opportunities and the removal of institutional, regulatory, financial and technical barriers. For example, efficient and reliable heating systems and the provision of other energy services for public buildings such as schools, residential apartments, hospitals, and orphanages were the focus of projects in Armenia, Belarus and Croatia. In the Armenia project, 17,000 households and 100 schools will benefit from the rehabilitation of heating systems and loans to heat service providers. Large-scale deployment of energy efficient lighting technologies are featured in several WBG projects in Uganda, Ethiopia, and Timor-Leste as a means to address power shortages faced by utilities and to increase reliability of supply to residential consumers.

Affordable, Reliable and Sustainable

Meeting the energy needs of developing countries in an environmentally sustainable manner is an urgent challenge. Clean energy underpins sustainable growth and poverty reduction. Indeed, the livelihoods and welfare of poor people in developing countries depend on the availability of energy services. Major improvements in the quality, quantity and affordability of energy services in developing countries will be necessary to support countries’ development objectives of job creation, health and education. The increase in global oil prices since 2004 has further added to the challenge of ensuring affordable energy services especially in the poorest countries of sub-Saharan Africa.

High energy prices, supply uncertainties, and environmental concerns are leading many countries to give greater consideration to alternatives such as renewable energy (RE) and energy efficiency (EE) that can provide affordable energy services and enhance energy security and reliability in an environmentally-sustainable manner. Nevertheless, renewable energy resources remain underutilized in many developing countries even though the price of renewable energy technologies has reduced significantly. The energy efficiency potential remains largely untapped in developing countries. Therefore, the World Bank Group (WBG) has made renewables and energy efficiency an integral part of its energy strategy as it strives to support sustainable economic development in its partner countries.
A Commitment Made...

The WBG committed to expanding its support for renewable energy and energy efficiency in developing countries at the 2004 International Conference on Renewable Energies in Bonn, Germany. In addition to supporting specific programs and policies, the WBG adopted a target of a 20 percent average annual growth in energy efficiency and new renewable energy commitments between fiscal years 2005 to 2009. The WBG also reaffirmed its support to larger scale hydropower where it is economic, financially viable, and where environmental and social safeguards are met. The WBG provides investment support, policy advice, technical assistance, capacity building and analytical services, co-financing support from Global Environment Facility (GEF), Carbon Finance operations, and bilateral funding that complements its support.

...And Kept

In fiscal year 2006, the WBG's financial support for renewable energy and energy efficiency projects was US$871 million, continuing a growth trend that began in 2001. Total investment for new-renewable energy, and energy efficiency rose to US$680 million in fiscal year 2006 and to US$459 in fiscal 2005.

 Cumulative new renewable energy and energy efficiency investment reached $1.14 billion in fiscal years 2005-2006, double the Bonn commitment.

The WBG investments for renewable energy and energy efficiency in fiscal year 2006 were 37 percent of total power sector investments and 20 percent of total energy sector investments of US$4.4 billion. These investments supported 62 renewable energy and energy efficiency projects in 35 countries. In addition, the Energy Sector Financial and Management Assistance Program (ESFMAP) (http://www.esfmap.org), a multi-donor facility at the World Bank, committed US$2.5 million for supporting analytical and technical assistance work in the area of renewable energy and energy efficiency in 2005.

Renewable Energy Highlights

The WBG’s work on renewable energy is pursuing a two-pronged approach targeting on the one hand the supply of energy in the short to medium-run and on the other hand providing policy support and building capacities for the expansion of renewable energy use in the longer term. In supporting projects we consider what specific energy services can help people meet their needs in an affordable and economic manner.

The success of WBG-assisted projects in improving energy access using energy efficiency projects is illuminated in 2006 when Gramenea Shakthi and Rahanamfao Batteries in Bangladesh and Sarvodaya Economic Enterprise Development Services (SEEDS) in Sri Lanka organizations supported by World Bank projects won the prestigious Ashden Awards for Sustainable Energy in 2006. These projects provided 141,000 households with electricity with the help of micro-credit schemes that made solar energy affordable.

In September of 2006, the World Bank Group merged its various activities in the area of Renewable Energy and Energy Efficiency into a single department, the Energy and Sustainable Development (ESD) Department, to better coordinate and implement interventions across the Bank. The Energy and Sustainable Development (ESD) Department now includes a dedicated Renewable Energy and Energy Efficiency Division (REE) that is responsible for developing policy and strategy and supporting project work across the Bank to increase energy efficiency and promote the development and diffusion of renewable energy technologies.

Source of Funds

<table>
<thead>
<tr>
<th>Source of Funds</th>
<th>New RE</th>
<th>Hydro &gt; 10MW</th>
<th>IE</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Bank IDA</td>
<td>22.7%</td>
<td>15.0%</td>
<td>10.1%</td>
<td>37.8%</td>
</tr>
<tr>
<td>World Bank (GF and Carbon Finance)</td>
<td>37.8%</td>
<td>4.0%</td>
<td>22.0%</td>
<td>64.0%</td>
</tr>
<tr>
<td>IFC (New Funds)</td>
<td>17.4%</td>
<td>47.0%</td>
<td>244.0%</td>
<td>248.4%</td>
</tr>
<tr>
<td>IF (old funds)</td>
<td>2.3%</td>
<td>0.0%</td>
<td>31.0%</td>
<td>33.3%</td>
</tr>
<tr>
<td>IFC SEF and other trust funds</td>
<td>0.0%</td>
<td>0.0%</td>
<td>1.8%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
<td>100.0%</td>
<td>410.0%</td>
<td>511.4%</td>
</tr>
</tbody>
</table>