CITY ENERGY EFFICIENCY TRANSFORMATION INITIATIVE

Helping Cities Improve Services, Enhance Competitiveness, Achieve Cost Savings, and Reduce Environmental Impacts through Energy Efficiency

Cities are the engines of economic growth. More than half of all people on the planet live in an urban area. The United Nations forecasts that the world's urban population will increase to 64 percent by 2050, with 94 percent of that increase occurring in developing countries.

Cities are the consumers of about two-thirds of the world's energy, and are responsible for about 70 percent of the world's greenhouse gas emissions. Increased and rapid urbanization means massive requirements for energy to power economic activity and expand basic infrastructure. Energy efficiency can offer practical solutions for budget-constrained cities to expand municipal services and improve their competitiveness, while contributing to cities' efforts to address climate change. Much of the growing population of developing country cities is poor—nearly one-third of the urban population lived on less than US$1.25 a day. Energy efficiency can also free up resources to improve services to the urban poor.

The City Energy Efficiency Transformation Initiative (CEETI) is a 3-year technical assistance program with an initial budget of US$9 million. Led by the World Bank's Energy Sector Management Assistance Program (ESMAP), the initiative helps cities identify, develop and mobilize finance for transformational investment programs in urban energy efficiency. It includes three main components: (i) financial and technical support; (ii) capacity building and e-learning; and (iii) knowledge creation and exchange.

The initiative builds on ESMAP's extensive work on urban energy efficiency, including development of the Tool for Rapid Assessment of City Energy (TRACE), which has now been deployed in 27 cities to help them quickly identify potential energy efficiency improvements, target underperforming sectors, and prioritize interventions. Other ESMAP efforts in this area include guidance notes, case studies, and

"Cities have always been the engines of economic growth; now they hold the key to a sustainable future. Cities today have a unique opportunity to become global engines of green growth by choosing energy-efficient solutions for their infrastructure needs."

Axel van Trotsenburg, Vice President, East Asia and Pacific Region, World Bank

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The Energy Sector Management Assistance Program (ESMAP) is a global knowledge and technical assistance program administered by the World Bank. It provides analytical and advisory services to low- and middle-income countries to increase their know-how and institutional capacity to achieve environmentally sustainable energy solutions for poverty reduction and economic growth. ESMAP is funded by Australia, Austria, Denmark, Finland, France, Germany, Iceland, Lithuania, the Netherlands, Norway, Sweden, and the United Kingdom, as well as the World Bank.

World Bank Group and Sustainable Urban Development

ESMAP's initiative is part of a broader World Bank Group effort to support cities plan and finance sustainable urban development, which also includes the Low Carbon and Livable Cities (LC2) initiative. LC2 offers a comprehensive package of support that targets climate-smart urban development, and can help cities tap their full emissions reduction potential. Working together, the World Bank's programs offer a full range of solutions for cities. For example, in Rio de Janeiro, ESMAP's TRACE was used as a part of Rio's Low Carbon City Development Program to identify two potential energy efficiency investments: efficient street lighting using LEDs and energy efficiency retrofits to municipal buildings, such as schools and hospitals. Going forward, the City Energy Efficiency Transformation Initiative will provide technical assistance for the implementation of the energy efficiency portfolio.

assistance to Uruguay (improvements in water systems), Rio de Janeiro (diagnostic and pre-feasibility studies in buildings and public lighting), Gaziantep, Turkey (financing of EE recommendations), Shanghai (building retrofits), and Tianjin (landfill gas recovery).

Technical assistance under the initiative is undertaken by cross-sectoral teams from the World Bank Group, working with local and national governments. Such support includes:

- Diagnostics and assessments of city energy use and energy efficiency potential
- Technical assistance for policy, regulatory, and institutional reforms
- Training and capacity building to enhance understanding of urban energy efficiency and its delivery
- Knowledge exchanges to share and disseminate experiences and good practices
- Development of energy efficiency investment programs and assistance to help to mobilize financing

A series of training modules on different municipal sectors (e.g., public lighting, buildings, water and waste-water) is being developed for online learning to reach officials and stakeholders from around the world. Knowledge products on urban energy efficiency topics are under development and will be disseminated broadly to share experience and lessons.

In its first round of grant allocations, CEETI is supporting technical assistance work in 10 cities of Brazil, China, Macedonia, Pakistan, South Africa, and Ukraine. The grants target cities where there is a high potential for the development of ambitious urban energy efficiency programs, a commitment from authorities to move ahead with such programs, and a mandate to implement them. Programs in these cities cover a broad spectrum of urban sectors including: lighting, water and wastewater, buildings (municipal, commercial, and residential), power and heat, waste management, industry, and transportation. Together, these programs seek to make energy efficiency an integral part of cities' sustainable development strategies.