



Cleaner Air for 400,000 Residents in India

Challenge

For years, 400,000 residents breathed air highly polluted by emissions from the 50-year-old coal-fired power plant operated by Calcutta Electric Supply Corporation (CESC) - the largest private thermal power company in Eastern India. The plant relied on old technology that emitted particles significantly higher than India's regulatory standard. The effects of air pollution on the health of citizens living in the area can be devastating, leading to fatal respiratory diseases and heart problems. The CESC plant, one of 81 similar coal-fired thermal power plants in India, faced increasing pressure from regulators to control air emissions or close.



Photo: US Consulate Calcutta

USAID assistance reduced emissions at CESC plant.

“The air pollution mitigation project undertaken by CESC is really commendable. The application of this technology will help the local people breath cleaner air and reduce concerns from environmentalists.”

- Subhas Datta, Howrah Democratic Citizen's Forum

Results

Emissions from fossil fuel combustion, especially coal, are major contributors to air pollution in India. Before USAID helped revamp the plant, the city of Kolkata's air pollution levels were among the highest in the world. The air pollution control system installed in the CESC plant have reduced emissions from 500 - 1,000 to 10 - 20 micrograms per cubic meter, substantially less than the regulatory standard. CESC's 400,000 neighbors are breathing cleaner air, with markedly reduced particulate matter - the chief cause of respiratory ailments. The reduction also prevents the CESC facility from closing, saving 700 jobs of primarily local residents who depend on the plant for their livelihoods. USAID plans to share the technology with other similar coal-fired power plants in India.

Initiative

USAID utilized proprietary technology from Beltran, a small New Jersey-based company, to help improve the CESC plant. To replace the 130 megawatt plant, which still has another ten years of life, with one of similar capacity would have cost about \$60 million. In addition, shutting the plant down would have resulted in the loss of jobs for local residents.

To promote a productive partnership, USAID facilitated a project demonstration that led to an agreement between CESC and Beltran to install the air pollution system for all eight of its coal-fired boilers. The technology, new to India, will reduce emissions at the plant and is more efficient than the conventional equipment currently used to limit pollution generated from the plant's emissions.

