

Sector Briefs

Thermal Power

Overview & Objectives

Citi supports a balanced approach to meet the world's electricity needs while reducing environmental and social impacts. To achieve this balance, Citi promotes and develops renewable energy and energy efficiency projects alongside our support for conventional thermal power. Meeting the world's energy needs equitably will require a diversified energy mix that includes coal-fired power as well as natural gas.

Many developing countries face increasing energy demands to supply some of the world's one billion people living without electricity.¹ Coal-fired power is often significantly cheaper for providing base load electricity generation than any other fuel source. For reasons of cost and reliability, any transition to a low-carbon economy will not happen overnight. As a global institution serving emerging markets, Citi recognizes the need to respond to tradeoffs where justified.

Under this Energy & Power Sector Roadmap, Citi's objectives in the thermal power sector are two-fold:

- For new projects, drive financing of higher efficiency thermal power projects globally;
- To ensure that Citi's approach to thermal power is consistent and balanced across regions and businesses.

Scope & Links to Policy

We undertake a rigorous analysis of the carbon emissions of GHG intensive sectors, including thermal power. For direct financing of new plants in emerging markets this analysis includes: application of IFC Performance Standards and World Bank/IFC Environmental Health and Safety Guidelines for Thermal Power and a gap analysis against host country approval requirements. Rated energy efficiency of new plants must be within the top quartile (25%) of the country average for the same fuel type and power plant size. The client must also undertake a robust alternatives analysis on the type of combustion technology proposed.

In the US, Citi applies the Carbon Principles, a framework for evaluating carbon-related risks which requires an Enhanced Due Diligence process for any financing where the client proposes a new coal-fired power plant.

Key Sector Issues

For clients in the thermal power sector, Citi will consider the following issues in accordance with the ESRM Standard:

- **Use of Best Appropriate Technology** – For new projects or new units in existing plants, clients must demonstrate the use of Best Appropriate Technology for the selected fuel source (i.e. economically and technologically feasible option to achieve the best environmental outcome). For energy efficiency, projects should aim to be in the top quartile of the country average for the same fuel type and power plant size.

¹Annual Energy Outlook (2012) [http://205.254.135.7/forecasts/aeo/pdf/0383\(2012\).pdf](http://205.254.135.7/forecasts/aeo/pdf/0383(2012).pdf)

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- **Water availability** – As a key input requirement for thermal power, the long-term availability of water, and the competing interests of other users, will be considered.
 - **Air emissions** – While the focus of environmental advocates is on greenhouse gas emissions, other air emissions such as particulate matter, NOx and SOx, that lead to human health impacts must be reduced to the extent that is technologically and economically feasible.
 - **Transmission lines and other associated facilities** – The risks and impacts of transmission lines and other associated facilities, which may or may not be part of the financing, must be assessed in the due diligence process.
 - **Health risks and impacts** – The impact of hazardous air pollutants on air quality and human health will be assessed.
 - **Legal and regulatory framework** – The host country legal and regulatory framework will be considered, including regulatory risks related to potential climate legislation.
 - **Other environmental and social risks** – In accordance with Citi's ESRM Standard, transactions will be reviewed to identify environmental and social risks associated with new construction or expansion.

Stakeholder Engagement

Citi is an active participant in the Equator Principles Climate Change Working Group, which aims to promote a common approach to climate change mitigation. Topics include energy efficiency performance, alternatives analysis, assessment of climate impacts and adaptation measures, and greenhouse gas reporting.