The Indian power sector has a history of growing demand for and chronic shortages of electricity. In 2010, the country’s peak power deficit was at 12.7% and the average energy deficit at 10.1%. The country constantly needs additional power supply and the power sector suffers the shortfalls in both generation and transmission capacity.

Achieving efficient delivery of all the power that the growing economy needs is a national priority and critical to sustaining India’s long-term development. To alleviate the country’s acute power shortage, the Government of India has traditionally focused on increasing power generation. The private sector has joined this effort and has added greatly to generation capacity over the last 4 years, but transmission investment has lagged. India has an installed generation capacity of 173,626 megawatts (MW) at present but its interregional transmission capacity of about 23,800 MW is 13.7% of this total. Based on increasing generation capacity, improvements in the transmission system expansion are urgently needed.

To help address the chronic shortages of electricity, the Asian Development Bank (ADB) approved the National Grid Improvement Project in September 2011. The project impact will be to accelerate the development of the interregional grid system to deliver increased power supply to sustain the country’s economic growth. The project outcome, strengthened transmission capacity and more efficient operations, will increase reliable power supply from private independent power producers (IPPs) and public utilities through the interconnected grid. The project will facilitate integration of electricity markets and create power trading opportunities through open access and competition among private and public utilities. It will expand the market for potential power sellers and buyers beyond their own regional grids. This will help promote private investment in generation and distribution.

The project is in line with the strategic directions of ADB’s South Asia Department. The strategy focuses on sustainable infrastructure, climate change mitigation and adaptation, human development, regional cooperation and integration, public–private partnership, and good governance.

**Project Features**

**Energy efficient technology.** The project adopts advanced 800 kilovolt high voltage direct current (HVDC) transmission lines that have so far been used only elsewhere in India and in the People’s Republic of China. This technology significantly reduces power loss and supports low-carbon growth. A large-scale HVDC supergrid network also helps stabilize power supply frequencies and voltages, which in turn will support development of smart grid operations.

**Promotion of private sector development.** Through public sector’s support for the improvement of interregional transmission, the project promotes private sector development in power generation by facilitating the access of IPPs to markets. Public and private investment are combined through the entire power sector value chain to leverage project benefits. Better interregional grid connectivity greatly expands power trading opportunities and consequently boosts IPP businesses. Because the government has opened investment in interregional transmission to competitive bidding, the project also attracts private developers to similar transmission projects in other regions.

(continued overleaf)
Project Brief

Project Features

POWERGRID’s self-financing capacity improvement. This is the first time ADB has combined sovereign and nonsovereign facilities for a single borrower. A foreign commercial term loan without credit support from governments is also a first for POWERGRID. The government encouraged ADB to provide the nonsovereign loan to help POWERGRID transition to and gain experience with more commercial forms of funding. POWERGRID is now nearly completely reliant on the domestic bond markets and recognizes the need to diversify its sources of debt.

Through ongoing capacity development technical assistance, ADB helps POWERGRID strengthen its corporate credit capabilities to promote access to international capital markets and improve its fiscal planning and risk management. The nonsovereign loan helps POWERGRID establish a much-needed benchmark for foreign commercial borrowing, and enhance its capacity for dealing with foreign commercial lending institutions before launching any future commercial borrowing program, such as an offshore syndicated loan or an international bond début.

The nonsovereign loan facility demonstrates to other financially viable central public sector undertakings on raising funds for the country’s economic development in a more autonomous manner. It serves as a catalyst for sustainable economic growth while reducing strain on government finances and increasing fiscal space for other priority social programs.

The Project at a Glance

Cost and financing: Ordinary Capital Resources, $750 million (sovereign loan: $500 million and nonsovereign loan: $250 million)

Project approval date: 30 September 2011

Project themes: Capacity development, Economic growth, Environmental sustainability, Private sector development, Gender equity, Climate change

Status of project implementation: Ongoing

Expected loan closing date: 31 December 2017

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This will be the first time ADB has combined sovereign and nonsovereign facilities for a single borrower.