



GLOBAL ELECTRICITY TRANSMISSION REPORT 2011-16

There is a strong realisation worldwide of the need for a robust transmission infrastructure in a move towards a low-carbon economy with greater renewable content in the energy mix. Until now, investment in the electricity industry has been aimed largely at increasing the generation capacity to meet the growing demand for energy. A significant part of this investment in recent years has been directed towards renewable-energy production in an attempt to mitigate the impact of the electricity industry on climate change. However, increasing generation capacity, through either renewables or conventional fossil fuels, will accomplish little in the absence of sufficient transmission capacity. Often renewable energy resources are constrained by location and require expansion of transmission network and capacity for delivering energy to consumers and to mitigate the effects of their intermittent behaviour on grid stability.

There has also been a change in the way in which the electricity transmission business is viewed. In several economies, electricity transmission has evolved from a “support activity” handled by integrated utilities to a stand-alone business, a development that is now a widely accepted model. This recognition has been reinforced in the past few years with the adoption of explicit regulatory and policy initiatives aimed at promoting investment in the transmission industry. While the pace of development has varied across regions, the trend is driven largely by the common objective of increasing reliability and enhancing security of supply in the emergent green-energy economy.

The **Global Electricity Transmission Report** examines the electricity sectors of 101 countries across the globe and provides detailed analysis of the existing as well as the evolving global transmission industry. These 101 countries represent about 96.4 per cent of the world’s gross domestic product and contribute over 97.3 per cent of the world’s total generation capacity. The report presents key statistics and describes developments in the electricity sectors of these countries from 2005 to 2010, and offers projections for the five-year period from 2011 to 2015. The focus of the report is the high-voltage transmission networks of the 220 kV and above category.

The 563-page report is available in PDF format.

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PART 2: COUNTRY PROFILES

Note: Each country profile has the following subsections:

1. Industry structure
2. Existing generation capacity and production
3. Expected addition to generation capacity
4. Existing transmission network (line length, transformer capacity, number of substations/transformers and existing cross-border electricity interconnections)
5. Expected addition to transmission capacity (line length, transformer capacity and number of substations/transformers)

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Sources and Methodology

Global Transmission Research's industry analysts have utilised various primary and secondary research sources in preparing this report. Primary sources include data and statistics obtained through telephone and email questionnaires sent to various utilities, transmission companies, transmission system operators and industry regulators.

Extensive secondary research has also been conducted by our analysts and research associates. These secondary sources include, but are not limited to: websites of utilities; annual reports and financial reports of utilities; investor presentations; analyst reports; government documents, plans and statistical databases; websites of relevant ministries and regulators; websites of relevant industry associations; internal and external proprietary databases; news articles; and press reports. Wherever applicable, all research sources are appropriately cited within this report.

These primary and secondary research sources, combined with our industry expertise, are synthesised into the qualitative and quantitative analysis presented in this report. The data and statistics for the years 2005 to 2010 are actual figures obtained from the concerned utilities and ministries. In a few cases, where 2010 data are not yet available, we have used estimates based on information obtained from press reports or those based on past growth trends. For expected addition to generation and transmission capacity, we have extensively researched the plan documents of various utilities and governments. Wherever these plans were not available, we derived the projections based on past growth trends.

Great care has been taken to ensure that all analysis is well supported by facts. Where facts were not available and assumptions were made, we have explained our assumptions and our methods of estimation.

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