



U.S. Embassy—Mexico City

Electricity Factsheet

Most of Mexico's electricity generation comes from conventional thermal plants, but is expected to move toward more gas-powered combined cycle.

Important Facts:

- In December 2013, the Mexican Congress passed energy reform legislation that allowed private sector participation in electricity generation.
- The state-owned Federal Electricity Commission (CFE) is the dominant participant in the generation sector, controlling over three-fourths of installed generating capacity. CFE previously held a monopoly on electricity transmission and distribution, but opened its grid after reforms.
- The Energy Regulatory Commission (CRE) has principal regulatory oversight of the electricity sector.
- Prior to reforms, private sector participation in electricity generation was permitted only in certain categories, including for the purposes of construction and operation of private plants for self-supply, co-generation, Independent Power Producers (IPP), small production (under 30 MW), and import/export.

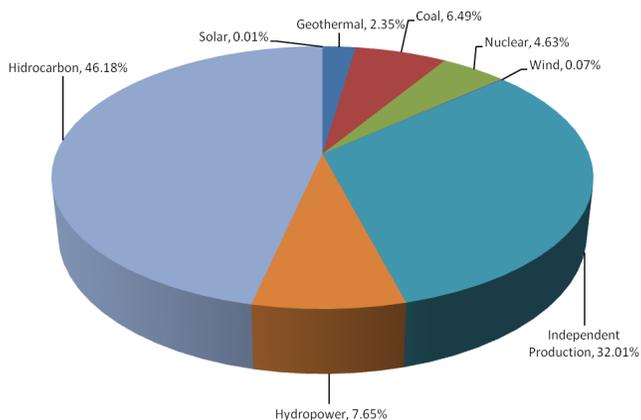
Mexico's state-owned public utility, the Federal Electricity Commission (CFE), is responsible for the overall planning, development, and operation of the national electricity system in Mexico.

The recently approved energy reform retains state-ownership of CFE and its transmission and distribution networks, but allows CFE to enter into contracts with the private sector. The energy reform is expected to impact the sector in several ways, including allowing for greater efficiency in the planning and development of power generation projects, introducing competition into the electricity market, providing non-discriminatory transmission network access and use, and increasing investment in new projects, particularly clean energy projects.

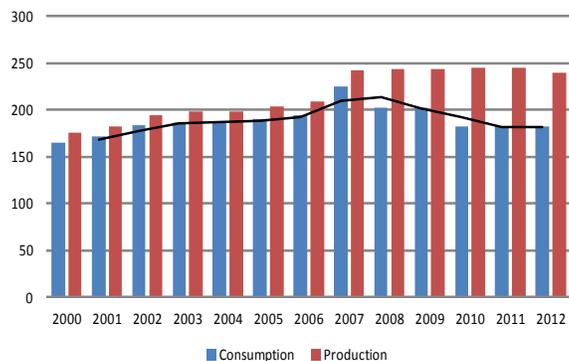
According to the Energy Regulatory Commission (CRE), Mexico's national installed capacity is 65 gigawatts (GW), 53 GW of which corresponds to public service, while private sector licensees represent the remainder. Installed capacity on Mexico's National Electricity System (SEN) grid increased by 177 megawatts (MW) during the first three months of 2014. According to the CRE, as of November, 2013, non-fossil energy sources contributed 27% of the installed public service capacity, while fossil fuel sources contributed 73%.

The electricity sector in Mexico relies heavily on thermal sources followed by hydropower. Although exploitation of solar, wind, and biomass resources has great potential, non-hydropower renewables represented 3% of Mexico's electricity generation in 2013. Mexico's National Energy Strategy and the Works and Investment Program of the Electricity Sector, a planning document from CFE, outline Mexico's legislated goal to increase clean energy generating capacity (renewable energy, hydro, and nuclear) to 35% in 2024.

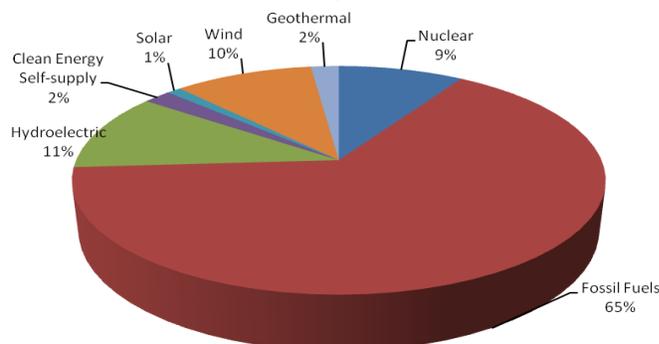
Generation by source, July 2013



Mexico's Electricity Supply and Demand

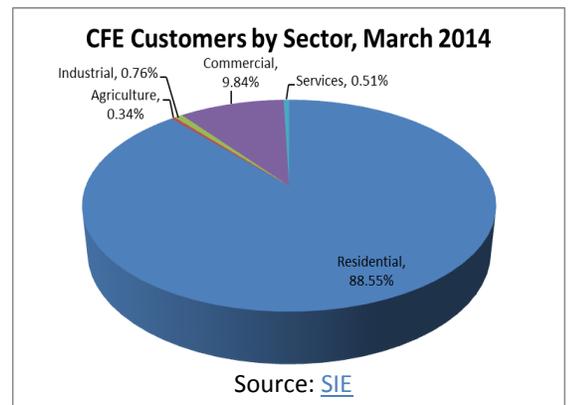


Generation by Source, 2024



Mexico's national transmission grid, which is operated by CFE, includes over 31,000 miles of mostly high and medium voltage lines.

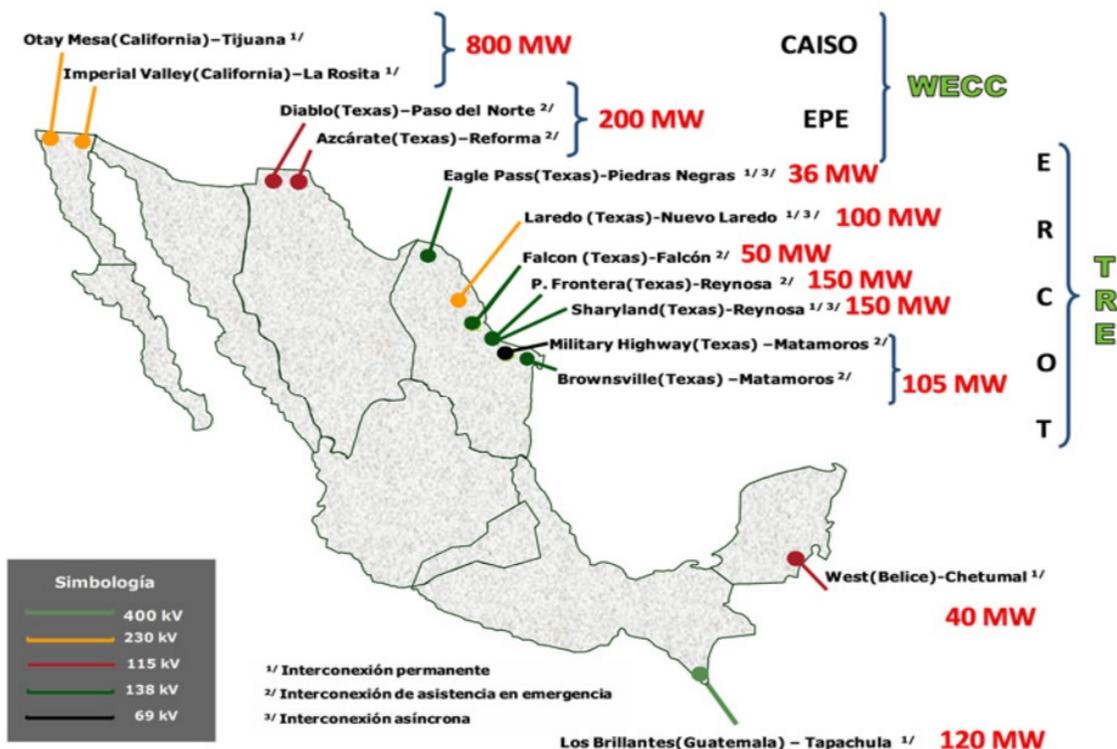
Although CFE reports that 97% of Mexico's population has access to electricity, there are still more than 3 million people without access to the electricity grid situated in about 70,000 locations throughout the country, mainly in rural areas. As of March, 2014, 89% of CFE's customers were in the residential sector. Although industrial and commercial sector clients represent fewer than one percent of CFE's customers they contribute around 60% of CFE's revenue. Because of CFE's high electricity rates to the industrial and commercial sector, many in those sectors have shifted towards self-supply models. In contrast, residential consumers make up 19% of CFE revenue as a result of subsidized residential tariffs and lower electricity use, according to the CRE.



International Interconnections

Electricity trade between the United States and Mexico has existed since 1905, when privately owned utilities located in remote towns on both sides of the border helped meet one another's electricity demand with a few cross-border low voltage lines. Over the years, both countries developed highly regulated and structured electricity sectors and a number of major and minor cross-border transmission lines were constructed. However, for a variety of technical and market reasons, U.S.-Mexico electricity trade has remained small. Existing electrical interconnections between Mexico and the United States are relatively limited in capacity and operationally constrained by asynchronous transmission systems, except in the Southern California-Baja California region.

Enlaces e interconexiones internacionales, 2012



The National Electricity System (SEN) is interconnected at different levels of line tension with the United States, Belize, and Guatemala. There are two types of interfaces: the ones that operate on a permanent basis and those for emergency situations. In the case of Guatemala, the infrastructure consists of a 27 kilometer transmission line on the Mexican side. Mexico has eleven interconnections on its northern border (see map above). The northern border electricity trade is managed by the SEN and two regional U.S. councils: the Western Electricity Coordinating Council (WECC) and North American Electric Reliability Corporation (NERC). The SEN also has interconnections with the Electric Reliability Council of Texas (ERCOT).