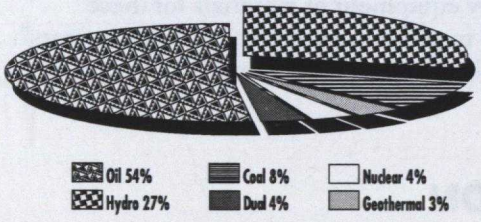
CFE Installed Capacity, 1994



Source: *Comisión Federal de Electricidad (CFE)*, Federal Electricity Commission.

The government is now demanding that the *CFE* bring revenues into line with costs. Subsidies are expected to be completely eliminated by the year 2000. This is putting enormous pressure on the utility to rationalize and modernize its operations. Prices will also have to rise, stimulating demand for more efficient equipment by electricity users.

More than two-thirds of all electricity is generated by thermal plants that burn coal, oil and gas. The *CFE* is presently operating one of two nuclear units at its *Laguna Verde* plant in the state of Veracruz, supplying about 4 percent of Mexico's electricity. Most of the rest of the nation's power comes from hydro and geothermal generation plants. Small-scale private generation plants tend to use gas turbine and combined cycle technologies. By 1999, the *CFE* expects to increase its installed capacity to about 44,000 megawatts, with a large part of the increase coming from dual fuel systems.

Like other public enterprises, the *CFE* is under government pressure to reduce emissions, particularly from its thermal power plants, many of which burn high-sulfur fuel oil produced by *Petróleos Mexicanos (PEMEX)*, the national oil company.

Technical Specifications

Mexico's electrical system includes more than 33,000 megawatts of capacity. It operates at 60 cycles with normal voltages of 110, 200 and 400. Three-phase and single-phase 230-volt power is available. Generation is at a voltage of 4-22 KV, with transmission at 69, 114, 230 or 400 KV. The *CFE* operates about 350,000 kilometres of transmission and distribution lines, with about 1,300 substations.

System Expansion

The Mexican electrical system is in a state of continual expansion. The ultimate objective is to supply all of the rural population. But major problems have been encountered in reaching remote villages. The *Comisión Federal de Electricidad (CFE)*, Federal Electricity Commission, plans to supply about two-thirds of these communities, or about 32,000 villages, over the next 20 years using solar and wind generating systems.

More than 800,000 new users are incorporated into Mexico's electrical system every year. The electric power capacity reserve is estimated at less than 6 percent and continued expansion is essential. Electricity consumption is expected to grow at an average annual rate of about 6 percent until the year 2000. In order to meet this demand, the *CFE* will build almost 14,000 megawatts of additional generating capacity, which is to come online between 1994 and 2000.

In April 1995, the *CFE* announced that the opening of the second unit of the *Laguna Verde* nuclear power plant in the state of Veracruz had been postponed until the second half of 1995, even though construction of the facility is virtually complete. Despite the postponement, the *Instituto Nacional de Investigación Nuclear (ININ)*, National Nuclear Research Institute, inaugurated a pilot plant in the State of Mexico to produce nuclear fuel for the second *Laguna Verde* reactor. The *CFE* does not plan to add any additional nuclear capacity.