June 1997 FEDERAL RESERVE BANK OF DALLAS HOUSTON BRANCH

Houston Business
A Perspective on the Houston Economy

Door to Mexican Energy Opens Slowly

Recent Mexican energy projects have attracted interest from many companies with local ties.

Despite NAFTA and the movement toward economic integration in North America, the Mexican energy door was tightly shut to foreign participation until very recently. The tone was set in 1938 by the Mexican expropriation of U.S. and British oil companies and the creation of Pemex as a state monopoly to control all aspects of the Mexican oil and natural gas industry. In 1962, the Mexican government completed purchases of U.S. and Canadian electric power companies in Mexico and widely advertised ***La Electricidad Es Nuestra*** (The Electricity Is Ours). Foreign participation in energy remains a politically charged subject in Mexico—as dangerous to political careers as talk of cutting entitlements or raising taxes in the United States.

However, in the past two years, the Zedillo administration has tested the limits of foreign participation by privatizing many petrochemicals and has made meaningful progress in opening up natural gas transmission, natural gas distribution and electricity generation. The progress has been slow at best, leaving some frustrating barriers still in place, but for Houston energy companies, it is finally creating new and viable opportunities. Recent Mexican energy projects have attracted interest from many companies with local ties, including Bechtel, Coastal, El Paso Energy, Enron, Fluor Daniel, NorAm, Shell and the Williams Cos.

RESERVED TO THE STATE

In relations between the United States and Mexico, it is commonly observed that the United States often remembers too little of its history and Mexico too much. The Mexican expropriation of U.S. and British oil in 1938 is an excellent example. In retrospect, it was an episode with

little to recommend the actions of either side. The oil companies were guilty of disrespect for both their Mexican workers and Mexican sovereignty. The Cárdenas administration was guilty of using xenophobia to stir the public and as a form of blackmail. The resulting rupture led to the first large-scale expropriation and nationalization of foreign oil assets and caused widespread celebration throughout Mexico in March 1938.

Petróleos Mexicanos (Pemex) was immediately established as a state enterprise to control the Mexican oil industry. Left with little equipment and few administrative skills in 1938, Pemex would eventually become a respected model for Mexican public enterprise. Such public enterprise seemed to harness best the limited administrative skills of a developing country and provided a training ground for future generations of engineers and administrators. The model was perfected during 1946–52 under Miguel Alemán, who brought business efficiency to three great "decentralized agencies" of the Mexican state—oil, electricity and railroads.

State enterprise was widely extended through the Mexican economy in the 1950s and 1960s, but economic reform in recent years has largely focused on reversing this trend and dismantling many of these companies. Modern Mexico now has progressed beyond the original rationale for state monopoly, and the government's willingness to use these firms as a piggybank became their chief shortcoming—through heavy taxes, through subsidies by underpricing public services and for political payoffs to unions.

Since 1938, Pemex has consolidated its grip on Mexican oil. The touchstone for the 1938 expropriation of U.S. and British oil concessions was Article 27 of the Mexican Constitution of 1917, a provision that reserved the mineral wealth of Mexico to the government. In its formative years, Pemex experimented with risk-service contracts that conveyed to foreign companies that provided exploration capital a percentage of the value of oil discovered. Since 1958, however, such risk-service contracts (and any other form of participation agreement) have been forbidden under amendments to Article 27; this is unlikely to change because any implied or actual foreign control of Mexican oil is politically unacceptable. Also, under 1958 legislation, Pemex was given control of oil by-products that are "potentially useful raw materials"—that is, Mexican petrochemicals. A list of 16 basic petrochemicals controlled by Pemex was published in 1960 and increased to 45 by 1967. In 1971, these petrochemicals were reserved to the state under Article 27.

Meanwhile, the private capital of the international oil companies moved on to huge new oil strikes in Venezuela, the Middle East and other locations. The Mexican political problem today is how to attract badly needed capital back to the energy sector, when energy—and especially oil—remains an emotional matter of national pride. Pemex stands at the center of the controversy, both as the key actor in Mexican energy and the chief heir of the oil mystique in Mexico.

CLOSE TO PEMEX

Pemex interacts widely with foreign companies through its suppliers of oil services and machinery. It is in the early phases of two massive exploration and development projects: one in the Burgos gas fields in northeast Mexico, a geological extension of the South Texas fields, and the other a modernization of its super-giant Cantarell field in offshore Campeche. As the contracts are leased for the projects, foreign suppliers become involved—Schlumberger, Halliburton, Cooper Cameron, Western Geophysical and Owen Oil Tools, among others.

Privatization of nonbasic or secondary petrochemicals is under way in Mexico, but recent efforts to privatize existing Pemex petrochemical facilities have led to a series of false starts. The Salinas administration set the stage by reducing the number of state-reserved petrochemicals (which had grown to 70) to 34 in 1986 and to 20 in 1989. The current list includes only nine basic feedstocks. One hundred percent private participation, including foreign, is now allowed for petrochemicals falling outside the basic list. A private $3 billion petrochemical complex is being promoted at Altamira on the Gulf Coast, with 17 companies investing. Future investment should grow with port privatization and a possible connection to the U.S. intracoastal waterway.

In October 1995, the Zedillo administration announced the controversial sale of all 10 Pemex secondary petrochemical complexes,

61 different plants possibly worth $2.5 billion. However, Pemex unions and other political opposition proved too strong by mid-1996, and the energy ministry returned to the drawing board. The current plan is to offer 49 percent shares in 10 newly created Pemex subsidiaries, and even this less-than-halfway approach seems to be on hold until after Mexico's mid-term elections in July.

NATURAL GAS

In 1995, Article 27 was amended to allow private investors to construct, own and operate natural gas pipelines, storage and distribution systems in Mexico. Pemex will remain the only producer and will retain its trunkline system under open access regulation. Other gas transporters can build and operate new pipelines. Pemex will withdraw from natural gas distribution in favor of the private sector, and gas storage and marketers ultimately will evolve as the system becomes more sophisticated.

Three permits have been approved so far for gas transportation. Mid-Con applied to build a 102-mile natural gas pipeline from Rome, Texas, to Monterrey. A second project will carry gas 330 miles to the Mérida III power project in the Yucatán. A third project will carry gas 25 miles to the Salamayuca II power plant near Juárez. In addition, seven permits have been approved for individual companies to provide their own supplies of natural gas through a combination of open access and private pipelines.

There has been strong interest in the first franchises for local natural gas distribution to be offered by Mexico's Energy Regulatory Commission. Consortia of foreign investors have won the first distribution tenders offered in Chihuahua, Hermosillo and Mexicali. They received a 12-year monopoly, and in exchange, they will buy existing Pemex infrastructure and commit to specific levels of investment. The Toluca and Tampico/Altamira regions have been tendered but not awarded, and Mexico City may be offered as several zones.

Two big pricing problems regarding Mexican natural gas are evident. One is a 6 percent Mexican tariff on imports of natural gas, a post-NAFTA relic that is delaying several cross-border transportation projects. The second is a heavy Pemex subsidy for LPG. Instead of using natural gas, 97 percent of Mexican consumers rely on subsidized and dirty-burning LPG for cooking and heating. These subsidies must be reduced to induce households to switch to natural gas.

ELECTRICITY

In 1992, Mexico authorized independent power projects (IPPs) that could be built by Mexican businesses for exclusive sales of electricity to the Mexican power monopoly, the Federal Power Commission (*CFE* is its acronym in Spanish). Under NAFTA rules, U.S. or Canadian firms can similarly enter into such projects. In addition, the law allows foreign investors to own and operate a cogeneration facility for self-supply of electricity, providing power for their own facilities and selling excess to the CFE.

Both IPP and cogeneration started slowly, but finally made significant progress last year. Details have been worked out for construction of the Mérida III generator, an IPP project won by a Japanese–U.S.–Mexican consortium to bring power to the Yucatán. It represented a test of investor interest and required the success of a separately tendered pipeline project. It left the winner's profit margins squeezed firmly between Mexico's energy monopolies—buying all gas from Pemex and selling output for 28 years to the CFE. The head of CFE recently stated that, based on Mérida III, the IPP would be the vehicle of choice for similar large power generators, as foreign investors brought state-of-the-art technology, had attractive financing and offered low long-term power rates.

Cogeneration also started slowly, but gained momentum last year. Three large projects were given permits by mid-year: the first to a group of Monterrey companies, the second to several plants belonging to cement-producer Cemex and the third to a group of companies in Altamira. By the end of last year, 25 self-supply contracts that totaled 1,900 MWe had been published. The current waiting list for CFE approval is 1,400 MWe.

Current electricity pricing deters faster progress. Mexican power rates may be the lowest in the world, with subsidies that cost the Mexican government more than $20 billion in 1996. This presents a significant barrier to cogenerators that sell into the grid at subsidized tariffs. Industry pays approximately 80 percent of its cost of electric service, and residential customers pay less than half.

Employment figures released by the Texas Workforce Commission show that Houston's job growth is slowing. Over the past 12 months, wage and salary jobs have increased only 1.9 percent, and job growth from October to April slowed to an annual rate near 1 percent. The service sector and government have been the main source of job growth during the past six months. In contrast, Beige Book respondents remain upbeat about current conditions.

RETAIL TRADE AND AUTOS

Retailers reported a good May, and they continue to be ahead of planned sales. Retail business has been good all year, and current inventories are in good shape going into the summer season. The two biggest problems are finding workers at the bottom of the labor pool and continued losses from credit cards.

April auto and truck sales were up nearly 5 percent from April 1996. For the first four months of 1997, Houston's auto sales increased approximately 2 percent. This reflects a solid performance, given that 1996 was a strong year for Houston auto sales.

ENERGY PRICES

Crude oil prices were between $19 and $20 for most of April and then increased to just over $20 per barrel during May. May prices were helped by international tension in several key producing areas and strong gasoline demand.

Late spring cold weather helped both natural gas and heating oil prices. Reversing normal seasonal trends, heating oil rose steadily from early April to late May, as unexpected heating loads kept prices rising. Natural gas prices similarly were pushed back over $2 per thousand cubic feet in mid-April and remained there through May. Natural gas storage was only 38 percent full at the end of May, so storage refills should be a positive factor for gas prices through the summer.

REFINING

Refineries switched to gasoline production later than usual, and capacity utilization briefly slipped below 90 percent. Concerns about low gasoline inventories proved unfounded, however, because supplies were adequate for the Memorial Day kickoff of the summer driving season. Refiners have earned respectable margins all year, and May continued this trend.

PETROCHEMICALS

Petrochemical demand remains strong and margins are healthy for most products. Prices of many basic petrochemicals rose along with energy prices over the winter and did not decline as natural gas and gas liquids prices began to fall back to current levels. Prices of polyethylene for packaging and polyvinyl chloride for construction rose in April and May. However, new ethylene capacity coming online over the summer will put downward pressure on the prices of these and other products and will quickly erase the gains.

OIL SERVICES AND MACHINERY

The oil service and machinery industry continues to see very strong demand and is operating flat out. Energy prices are strong enough to offer oil producers tremendous rates of return, thus providing the cash flow needed to reinvest the money in the business through drilling. Reports persist of shortages of machinists, ship captains and crews, drilling crews, drill pipe and many types of equipment.

REAL ESTATE

The single-family market remains solid, with strong sales of new homes. Housing starts lag last year because of wet weather, and most builders have an inventory of sold but uncompleted homes because they can't pour the foundations.

The apartment market is reported to be in balance, with the possible exception of too many Class A apartment projects under way. The industrial market is the strongest real estate market in Houston, with 5 million square feet built last year and another 5 million expected this year.

For more information, contact Bill Gilmer at (713) 652-1546 or bill.gilmer@dal.frb.org

For a copy of this publication, write to Bill Gilmer, Houston Branch,
Federal Reserve Bank of Dallas, P.O. Box 2578, Houston, Texas 77252.

This publication is available on the Internet at www.dallasfed.org

The views expressed are those of the authors and do not necessarily reflect the positions of the Federal Reserve Bank of Dallas or the Federal Reserve System.