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## Evaluation

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# The seven bidders

Seven bidders are participating in the Mexican nuclear competition opened Oct. 5. Bids on this second stage of Mexico's nuclear program—to encompass a target 2,400 MW—are due by Feb. 1, 1982, and results will be announced by Aug. 1, 1982.

This is the way the bidders stack up as of this moment, though it should be remembered that Mexico has left itself plenty of room over the next 10 months for hard bargaining and further definition of its own needs.

### United States

Three of the seven bidders are American: General Electric, Westinghouse, and Combustion Engineering.

**Strengths:** General Electric is the principal builder of Mexico's first nuclear reactor complex, the 1,300 MW of Laguna Verde, due to come on stream in 1983-84. This means GE is well established in Mexico. It would have a special advantage if Mexico wanted to expand the Laguna Verde site, because the extensive testing for placing GE's Boiling Water Reactors (BWR) there, including most importantly seismic studies, would not have to be repeated.

Westinghouse, which produces the more widely adopted Pressurized Water Reactor (PWR), is pitching its bid to Mexico on its ability to guarantee 100 percent transfer of technology, as demonstrated in its 10-year program of transfer to Spanish licensees. It has also considered strengthening the financing package it can offer by bringing in either Mitsubishi (its Japanese licensee) or its Spanish associate firms.

Combustion Engineering's forte in the past has been its leading role in producing heavy components such as pressure vessels and steam generators. It is expected to be selling Mexico on this capability. Its basic model: Pressurized Water Reactor.

All three U.S. firms benefit from their extensive experience in reactor production and export, and the momentum of the current thaw in U.S.-Mexico relations.

**Weaknesses:** Mexico is interested in both guaranteeing supply of imported enriched uranium for the next set of reactors and in acquiring such enrichment technology for itself further down the line. The U.S. has yet to demonstrate a convincing record in either area.

A second severe problem area is export financing. Eximbank is currently inadequate to the task.

**Evaluation:** Despite these problems, the U.S. firms stand an excellent chance.

### France

France has been in the running long and hard since the time of President Giscard's visit to Mexico in March 1979.

**Strengths:** More than any other bidder, France is willing to discuss transfer of enrichment technology to Mexico. It is offering Mexico concretely the 11.6 percent of the shares of Eurodif, a pooled enrichment arrangement in Europe, which Iran let lapse after the Khomeini takeover. This would guarantee Mexico enriched uranium supply until the Eurodif capacity is saturated. At that point France promises Mexico access to two experimental enrichment processes, chemical isotope separation and laser separation. France has also repeatedly offered Mexico access to the technology of France's Super-Phénix breeder reactor as it comes into commercial use in the late 1980s.

**Weaknesses:** In a word, Mitterrand. So long as the new Socialist government slashes domestic nuclear plans left and right, France has had to do some fast talking to convince Mexico that it plans to stay in the business of being a reliable nuclear exporter. The French embassy in Mexico has put out the word that nuclear will be "at the top of the agenda" that François Mitterrand brings with him into talks with President José López Portillo in Mexico Oct. 19-21.

**Evaluation:** Despite the Mitterrand problem, France retains the support of a strong current in Mexico's energy and nuclear establishment. Also up near the front.

### Canada

Up until the recent re-entry of U.S. bidders, Canada had been the principal country going head-to-head with France. It now looks in trouble.

**Strengths:** Canada, unlike all the other entrants, is offering solely Heavy Water Reactors (HWR), known as the CANDU. The CANDU does not require enriched uranium, and hence offers Mexico a way out of the delicate and uncertain business of seeking guaranteed sources for enriched uranium.

**Weaknesses:** The CANDU requires heavy water, a substance difficult either to import on an assured basis or to produce at home. The Atomic Energy Commission of Canada (AECL) contracts out for all its reactor components (50 percent of which are actually produced in the United States), and is therefore not in a position to offer a complete transfer-of-technology package. Finally, since CANDU is a major divergent technology from the more widespread Light Water Reactors

(LWR) offered by everyone else, it entails a top-to-bottom re-tooling of the Mexican nuclear industry, outside the kind of timetable implied in the decision to go for immediate bids on the next stage, as taken Sept. 22.

**Evaluation:** The CANDU is supported for political reasons by a powerful faction in the Mexican nuclear workers' union, SUTIN, the nuclear research institute, ININ, and surrounding leftist political layers. Their argument is that heavy water is subject to less "foreign dependence" than enriched uranium. This argument did not carry the day in the Sept. 22 meeting and is not likely to in the future. Other considerations, technical and commercial, favor the other bidders and Canada's chances are now somewhat reduced.

### Sweden

Sweden has made a surprisingly strong run for the money, starting with a full tour of Sweden's nuclear industry provided López Portillo during the Mexican President's visit to Sweden in May, 1980.

**Strengths:** Sweden is making an offer no other competitor has on the table: the physical relocation of its nuclear company, ASEA ATOM, to Mexico. This would enhance Mexican opportunities for manufacture of components, both for itself and for export. Sweden also already has an extensive share of Mexico's non-nuclear electricity technology market. Mexico's Industry Minister De Oteyza, with a large say in the nuclear decisions, was reported to have been particularly impressed with the Swedish industry during his 1980 visit.

**Weaknesses:** Sweden does not have enrichment capability, nor a major export record (its only sale has been to Finland so far).

**Evaluation:** Not one of the front-runners.

### West Germany

A late entry in the competition, Germany did not even include nuclear energy on the formal agenda when López Portillo visited Bonn in 1980.

**Strengths:** West Germany's Kraftwerke Union (KWU) is the only firm in the bidding able to offer all three commercial reactor technologies: Boiling Water, Pressurized Water, and Heavy Water. It has experience with a broad-ranging Third World nuclear development program (the Brazil deal) graduating into supply of a full fuel-cycle capability. Specifically, like France, Germany has an experimental enrichment technology it has been willing to export.

**Weaknesses:** Entered the bidding so late that it does not have any significant "lobbying" apparatus already built up in Mexico. It has to demonstrate that it is seriously interested in the Mexico market, which it had previously been willing to write off as it concentrated on the Brazil deal.

**Evaluation:** Trailing the pack at this point.

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## Japan-Mexico Relations

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# Tokyo out to rebuild trade and investment

by Héctor Apolinar

Over 100 Japanese businessmen and government representatives met with various Mexican businessmen and state officials the week of Oct. 5-7 in Guadalajara, 300 miles west of Mexico City, at the 12th Plenary Meeting of the Mexico-Japan Businessmen's Committee.

The most striking aspect of the meeting was the evidence that Mexico and Japan are taking steps to consolidate economic and political cooperation of a sort perhaps not occurring anywhere else in the world at this time. If this relationship succeeds, it could rapidly become a new model for relations between advanced industrial countries and those underdeveloped countries aspiring to advanced status.

Economic ties between the two countries have made surprisingly large advances in the past two years, demonstrated by the fact that Japan moved from fifth to third place in foreign investment in the country. Japanese investment now totals \$1.5 billion, surpassing France and Sweden. For 1982, the Japanese objective is to displace West Germany, currently in second place, with approximately \$3 billion in investments.

The Japanese offensive is making businessmen from other countries nervous. The Mexico-Japan Businessmen's Committee in fact projects a \$4 billion level of investment by 1983 and trade valued at \$3 billion.

In the course of talks in Guadalajara with the Japanese participants, it became clear to me that for these industrialists, who created Japan's economic resurgence, Mexico is seen as an almost ideal place to invest. Mexico's economic opportunity and natural resources, and above all the enormous productive and creative potential of the Mexican population, are considered by the best of Japanese industrialists to endow Mexico with the makings of a second Japan.

Another faction of Japanese businessmen is disconcerted by these developments, even unhappy over the markedly political emphasis established by Mexico in its international economic negotiations. Part of this reaction can be traced to the fact that Mexico has refused to