Turning Japanese

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Since 1995, when the deregulation of Japan's power industry began, new independent power projects (IPPs) have contributed 6,302 Megawatts of electricity to Japan's total market supply. Like the latest IPP venture, Kobe Steel's scheme to build two new power plants to supply 1,400MW to Japanese electric utility (JEU) Kansai Electric, the majority of these developments have been exclusively Japanese ventures.

Kobe Steel's quasi base load, project, scheduled for completion by 2004, is being arranged by Development Bank of Japan, Sanwa, DKB, IBJ, and Sakura, demonstrating that a lack of international participation has also been a feature of the financing arrangements for Japanese power projects.

The reasons for this purely Japanese funding will be familiar; low Japanese interest rates, a demand for Yen denominated funding, and the strong links that continue to exist between Japanese corporates and banks. For the international banker, therefore, the opportunities to be involved in financing new Japanese power projects are intimately linked to western power operators' success in breaching the market.

International interest builds

International interest in Japan's power industry was initially restrained due to the limitations of the first phase of deregulation. Peter Evans, a senior consultant at US energy consultancy CERA, notes that IPP developments between 1995 and the beginning of 2000 have been limited to contracts to supply the JEUs themselves and not the Japanese customer base directly.

From March 2000 on the other hand, prospective fossil fuel players will no longer be beholden to the existing utilities but will be able to pitch customers in an expanded wholesale bidding process. Competition will still be restricted, namely to supplying high volume, high voltage customers, but the segment comprises a hefty 28% of the market or 6,100 large industrial and 2,200 large commercial firms. In addition, there will be new opportunities in power aggregation and marketing. "It may not be total competition," Evans adds, "but we are talking about the third largest power industry in the world after the US and China, with industry-wide revenues of ¥15 trill ($125 billion)."

Judging by comments made by foreign power producers to *Project Finance*, initial hesitance has been replaced by a much more serious intent to explore the market's potential. Leading the pack are InterGen, AES, Enron and Texaco. One Hong Kong banking source even believes that Texaco will be the source of a project financing in Japan, possibly by year end.

Masaaki Ebina, project coordinator for Texaco in Japan, says the company has been conducting feasibility studies with Tokyo-based Koa Oil, about jointly entering the country's electric-power industry. Market sources say the two companies are considering investing a total of ¥120 billion ($1.07 billion) to build two generators in western Japan on site at a Koa refining facility. Texaco will not give any more details at present.

Similarly, Orix, the Japanese leasing company, is buying a 20% stake in EnCom, an offshoot of Enron. The US operator set up EnCom last year in an attempt to gain a foothold in Japan's electric power market. Orix USA, the US arm of Japan's largest leasing company, plans eventually to increase its investment in EnCom to $30 million.

Moody's JEU analyst, Takahiro Morita, predicts that other foreign power companies will link up with Japanese trading houses in order to limit the heavy costs associated with operating in Japan.

Tom Doyle, head of development, at InterGen in Hong Kong, says that foreign power companies are looking closely at buying power generation assets of major Japanese industrials. "The value of these assets is not in being able to obtain a lower cost of production than the existing utilities but in having access to a particular site and, potentially, a captive off-taker," says Doyle. Within Japan's industrial base, analysts believe attentions will focus on companies who have a large number of sites, for example, Nippon Steel.

Many heavy industrials have a key advantage that international players will want to tap into, namely large holdings of land close to metropolitan areas. In the last two years, Nakayama and Kobe Steel have both been successful in winning contracts from the JEUs for power supply because they have land close to where the JEUs customers are, allowing for lower infrastructure costs.

At the same time, many sectors of Japanese heavy industry, which were previously granted permission for certain high emission levels, are scaling back on production allowing for their emissions to be well below the permitted maximums. One banking source involved in the Kobe deal says that foreign power operators, in tandem with Japanese industry, may be able take advantage of these pre-existing emission approvals. On this basis, proposed power plants of foreign contenders will have less chance of being rejected for environmental reasons.

It should be noted, says Morita, that only a slice of this market will be commercially attractive for foreign power companies, given the wide variation in the price per kilowatt hour paid by high volume users. Best placed industrial companies pay about ¥11.8 per kWh for electricity, partly due to the fact that if prices were any higher, industrial companies might be tempted to build their own generating units. ¥11.8 per kWh would not generate enough of a margin to attract international players like InterGen or Enron. In contrast, ¥16.7 per kWh, a price which large commercial users habitually pay, would produce ample gains. "For international operators the market opening is really closer to 11.5% than 28% of total power supply in Japan due to the price differentials," says Evans.

Challenges to market entry

Foreign power producers looking to enter the Japanese market face a number of crucial challenges. Their ability to overcome these challenges is another important determinant of how large their eventual market presence will be. Doyle says the three main difficulties are; acquiring sites, obtaining adequate fuel supplies, and Japan's stringent emission standards. "These challenges," Doyle observes, "are not much different from the difficulties that new operators face in other countries except that the emission rules are about the strictest in the OECD."

Confronted by similar challenges, the Japanese IPPs experience during the first four years of deregulation has not been an altogether happy one. Refiner General Sekiyu (GSK), in which Exxon now has a controlling interest, and its partner Mitsui & Co withdrew from a plan to develop a 547.5 MW plant in Kawasaki due to the unexpected costs associated with the city's high air quality standards. Most bid winners under the existing bidding system have also had to rely on idle land-holdings or existing infrastructure to enhance their cost competitiveness. Meanwhile, the JEUs have not been obliged to provide back-up facilities, often forcing newcomers to maintain expensive additional generating capacity.

The most aggressive foreign players remain unfazed. Doyle says that the first stage of deregulation produced a different environment to the one which foreign power companies are examining now. Over the last four years the JEUs solicited bids for a limited amount of electricity supply from IPPs which were in direct competition with each other. This fierce competition, in an avoid cost based system, drove bid prices down to pricing lows of about ¥8 or ¥9 per kWh, a level which Moody's Morita declared might not be sufficient for new operators to achieve a profit. Since its scope is far broader, the competitive retail environment that will be in place from March is not likely to reproduce such a fierce supply/ demand mismatch.

Foreign power companies claim other issues have to be tackled or analyzed before they will be ready to commit to the market. The major issues are; the reaction of existing utilities to competition, access to transmission lines and associated costs, the lack of an independent service operator, and the inadequate regulatory mechanism.

Potential market entrants from the US or Europe claim that the formulas being used by the JEUs to calculate proposed back-up charges are not consistent with those employed in other countries, leading to much higher potential costs. The Ministry of International Trade and Industry (MITI) which is charged with regulating the energy industry, will have to be much more aggressive about analyzing these formulas if it is serious about competition, says one market watcher.

In late December 1999, government authorities did announce fair trade practice guidelines for the deregulating retail market. According to Ritsuko Miyazaki, research analyst at Nikko Salomon Smith Barney, these guidelines seek neutrality from the power transmission divisions of the established power companies, barring the divisions from using information on new power suppliers to help the established firms' sales activities. The guidelines also warn that if established power suppliers offer extraordinarily low rates to large power users, hampering newcomers to the power retail market, their practices might violate the Antimonopoly Law, another important new development.

What is less satisfactory is the dispute resolution resources that MITI has at its disposal. Evans indicates that MITI's approach to the issue has been ad hoc. As a result the capacity of the Japanese government to resolve disputes fairly is limited. "At best MITI has only a handful of people with the necessary expertise to judge whether an application to wheel power has been turned down for justifiable reasons. The Federal Energy Regulatory Commission in the US has a staff of about 1,000 devoted to these sorts of issue," comments Evans.

JEUs and deregulation

Foreign players are also watching the JEUs carefully to gauge their reaction to deregulation. Tokyo Electric Power (Tepco) has already announced measures to counter competition from companies joining the nation's power retail market when it is liberalized in late March. Japan's biggest power house has announced rate cuts for large-lot clients and also plans to reduce rates for household users within the next fiscal year starting in April. "Overall, general market expectations are that prices will reduce about 5%,"says Evans. "That's not a drastic reduction and one that potential foreign entrants can live with," the consultant adds. Since the competitive threat from foreign players is not that large, the existing JEUs clearly don't want to cut their margins too much. Tepco has meanwhile announced that is will offer its transmission lines for ¥2.87 per kilowatt-hour for new entrants.

The head of Enron's Japan venture, Carey Sloan is circumspect about the deregulation process. "It is really going to take a test case, an attempt by a new entrant to negotiate its way into the transmission network, before we really know how the whole environment will work," he says.

Given growing market uncertainties and the reluctance of JEUs to commit to wholesale purchase contracts, Evans expects most new fossil fuel plants will be built on a merchant basis. If so, lenders to new Japanese power projects will be exposed to a wide range of market risks.

One recent event indicates that the risks of operating in the Japanese power market are likely to become much more acute. To date one of the more unusual features of the market has been the degree of cooperation between the privately owned JEUs. Increasingly, however, Japanese corporates have been pressing for cheaper electricity tariffs to boost their international competitiveness and have begun to shop around for lower cost supply. Car manufacturer, Toyota, recently informed its power supplier Chubu Electric that if it didn't lower its rates Toyota would buy power from rival Kansai Electric. The development could herald an era of far greater competition between the nine existing JEUs and measurably reduced opportunities for foreign players.

Nevertheless there are still reasons for foreign energy companies to be confident that their designs on Japan can be realized. That's because other liberalization measures are thought to be on the way. Miyazaki says MITI is seeking to liberalize gas supply and hopes to compile guidelines on gas liberalization by early next year. A Fair Trade Commission panel has also called for the introduction of a pool market allowing generators, distributors and users of electric power to trade electricity on a short-term basis.

Market rumours also suggest that a review of the Electric Utility Law, which was revised in fiscal 1999, could be moved forward one year to take place in 2002. "Once the law is reviewed the market could be opened to include all industrial companies and also medium sized commercial players. If so, the key for foreign players will be to get into the market as soon as possible," says Evans.