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China Is Eager to Bring High-Speed Rail Expertise to the U.S.

By KEITH BRADSHER

BEIJING — Nearly 150 years after American railroads brought in thousands of Chinese laborers to build rail lines across the West, [China](#) is poised once again to play a role in American rail construction. But this time, it would be an entirely different role: supplying the technology, equipment and engineers to build [high-speed rail lines](#).

The Chinese government has signed cooperation agreements with the State of California and [General Electric](#) to help build such lines. The agreements, both of which are preliminary, show China's desire to become a big exporter and licensor of bullet trains traveling 215 miles an hour, an environmentally friendly technology in which China has raced past the United States in the last few years.

"We are the most advanced in many fields, and we are willing to share with the United States," Zheng Jian, the chief planner and director of high-speed rail at China's railway ministry, said.

Gov. [Arnold Schwarzenegger](#) of California has closely followed progress in the discussions with China and hopes to come here later this year for talks with rail ministry officials, said David Crane, the governor's special adviser for jobs and economic growth, and a board member of the California High Speed Rail Authority.

China is offering not just to build a railroad in California but also to help finance its construction, and Chinese officials have already been shuttling between Beijing and Sacramento to make presentations, Mr. Crane said in

a telephone interview.

China is not the only country interested in selling high-speed rail equipment to the United States. Japan, Germany, South Korea, Spain, France and Italy have also approached California's High Speed Rail Authority.

The agency has made no decisions on whose technology to choose. But Mr. Crane said that there were no apparent weaknesses in the Chinese offer, and that Governor Schwarzenegger particularly wanted to visit China this year for high-speed rail discussions.

Even if an agreement is reached for China to build and help bankroll a high-speed rail system in California, considerable obstacles would remain.

China's rail ministry would face independent labor unions and democratically elected politicians, neither of which it has to deal with at home. The United States also has labor and [immigration](#) laws stricter than those in China.

In a nearly two-hour interview at the rail ministry's monolithic headquarters here, Mr. Zheng said repeatedly that any Chinese bid would comply with all American laws and regulations.

China's rail ministry has an international reputation for speed and low costs, and is opening 1,200 miles of high-speed rail routes this year alone. China is moving rapidly to connect almost all of its own provincial capitals with bullet trains.

But while the ministry has brought costs down through enormous economies of scale, "buy American" pressures could make it hard for China to export the necessary equipment to the United States.

The railways ministry has concluded a framework agreement to license its technology to G.E., which is a world leader in diesel locomotives but has little experience with the electric locomotives needed for high speeds.

According to G.E., the agreement calls for at least 80 percent of the components of any locomotives and system control gear to come from American suppliers, and labor-intensive final assembly would be done in the United States for the American market. China would license its technology and supply engineers as well as up to 20 percent of the components.

State-owned Chinese equipment manufacturers initially licensed many of their designs over the last decade from Japan, Germany and France. While Chinese companies have gone on to make many changes and innovations, Japanese executives in particular have grumbled that Chinese technology resembles theirs, raising the possibility of legal challenges if any patents have been violated.

All of the technology would be Chinese, Mr. Zheng said.

China has already begun building high-speed rail routes in Turkey, Venezuela and Saudi Arabia. It is looking for opportunities in seven other countries, notably a route sought by the Brazilian government between São Paulo and Rio de Janeiro, Mr. Zheng said.

International rail experts say that China has mastered the art of building high-speed rail lines quickly and inexpensively.

“These guys are engineering driven — they know how to build fast, build cheaply and do a good job,” said John Scales, the lead transport specialist in the Beijing office of the [World Bank](#).

The California rail authority plans to spend \$43 billion to build a 465-mile route from San Francisco to Los Angeles and on to Anaheim that is supposed to open in 2020. The authority was awarded \$2.25 billion in January in federal economic stimulus money to work on the project.

The authority’s plans call for \$10 billion to \$12 billion in private financing. Mr. Crane said China could provide much of that, with federal, state and local jurisdictions providing the rest. Mr. Zheng declined to discuss financial details.

China’s mostly state-controlled banks had few losses during the global financial crisis and are awash with cash now because of tight regulation and a fast-growing economy. The Chinese government is also becoming disenchanted with bonds and looking to diversify its \$2.4 trillion in foreign reserves by investing in areas like natural resources and overseas rail projects.

“They’ve got a lot of capital, and they’re willing to provide a lot of capital” for a California high-speed rail system, Mr. Crane said.

Later plans call for the California line to be extended to Sacramento and San Diego, while a private consortium

hopes to build a separate route from Los Angeles to Las Vegas.

Toyota is shutting a big assembly plant in Fremont, Calif., that it once operated as a joint venture with **General Motors**, and one idea under discussion is converting the factory to the assembly of high-speed rail equipment, said Mr. Crane, who is also a member of the state's Economic Development Commission.

Rail parts from China would then come through the nearby port of Oakland, in place of auto parts from Japan.

“High-speed rail requires a lot of high technology — we would send many high-end engineers and high-end technicians” to California, Mr. Zheng said.

G.E. estimates that the United States will spend \$13 billion in the next five years on high-speed rail routes.

China, with a much more ambitious infrastructure program, will spend \$300 billion in the next three years on overall expansion of its rail routes, mainly high-speed routes, according to G.E.

China's long-term vision calls for high-speed rail routes linking Shanghai to Singapore and New Delhi by way of Myanmar, and someday connecting Beijing and Shanghai to Moscow to the northwest and through Tehran to Prague and Berlin, according to a map that Mr. Zheng keeps on a bookshelf behind his desk. He cautioned that there were no plans to start construction yet outside China.

A high-speed rail link for passengers from Beijing to Shanghai will be finished by the end of 2011 or early 2012, and cut the journey to four hours, from 10 hours now, Mr. Zheng said.

New York to Atlanta or Chicago is a similar distance, and takes 18 to 19 hours on **Amtrak**, which must share tracks with 12,000-ton freight trains and many commuter trains.

For the American market, Mr. Zheng said, “we can provide whatever services are needed.”

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