

Editor's Note: *BusinessWeek* earlier this year wrote about the growing power sector in India in an article titled, "The Sweet Smell of Demand." The piece started with information about Siemens's construction of a 130,000-square-foot plant to produce transformers. Siemens' sales to India's electric sector doubled last year to \$447 million, the magazine reported. EnergyBiz contacted Goutam Bhatia, the manager of the new transformer plant, and asked him to write about the hot Indian market. He agreed, and his essay follows.

India Power Demand Surges

SIEMENS STEPS UP TRANSMISSION PRODUCTION

BY GOUTAM BHATIA

THE INDIAN POWER sector has witnessed a strong all round revival in the last five years with growth rate averaging at about 6 percent per year. When India achieved freedom in 1947, the installed capacity was 1.4 gigawatts. Today it is 127 gigawatts. The current five year plan envisages adding another 68 gigawatts by 2012.

The country has emerged as the second largest potential destination for investments in power after China. The government of India has made certain provisions which will attract investment leading to strengthening the existing transmission and distribution network and also creating additional transmission network to match the envisaged generating capacity. The investment to meet this end would be \$210 billion.

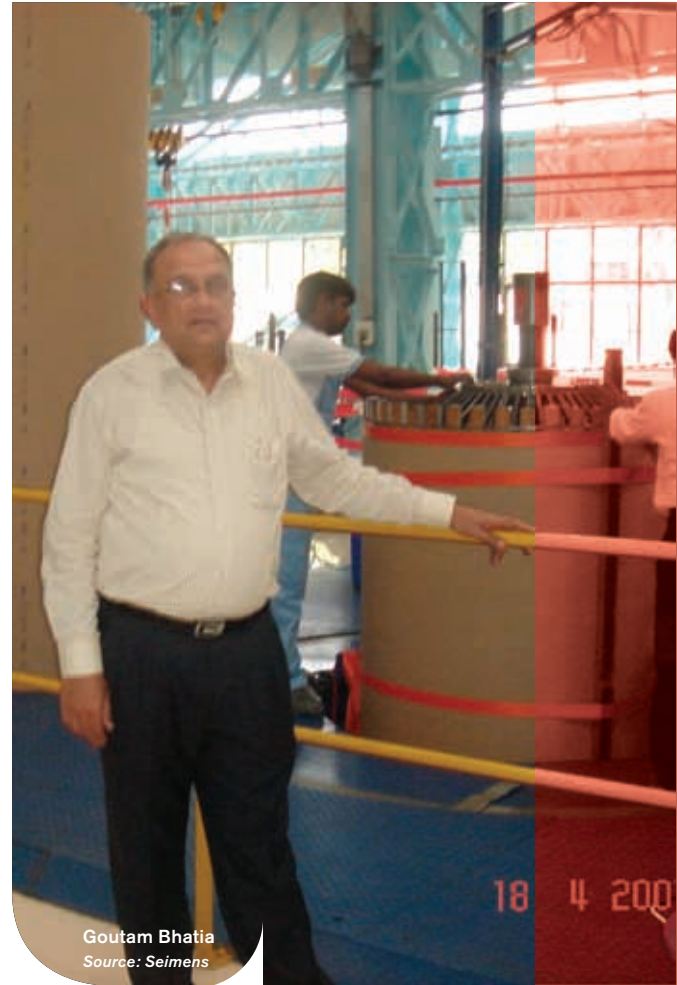
The transformer industry in India is a matured industry estimated at around \$1.5 billion. The growth is expected to be in range of 18 percent a year. The growth will be driven predominantly by domestic market requirements. Many of the transformer manufacturers are exporting transformers to the Middle East, Africa, Europe and the United States.

The existing manufacturers are involved in producing power, distribution and industrial transformers. India is currently gearing-up for manufacturing transformers for 800-kilovolt and large, high-voltage, direct-current transformers. Major areas of concern include the availability of core steel, insulation and other raw materials, as

manufacturers have been surprised by the sudden surge in demand. As a result, they are unable to satisfy the requirement for these items. The labor cost and other overheads form a small part of the total cost of the transformers, with raw materials forming about 75 percent of the sales cost.

Siemens is setting up a state-of-the-art, power transformers design-and-manufacturing facility in Kalwa, near Mumbai. The facility is capable of manufacturing high-voltage direct-current and other special application transformers. The transformers manufactured by Siemens in India will be identical to those made in Europe, the United States and elsewhere as the technology for these comes from Nuremberg, Germany. The full technology transfer, including the know-how for design and production techniques, has been transferred through documentation as well as the training of Indian personnel in Siemens plants in Germany and elsewhere.

The new plant is designed taking into consideration all the experiences gathered from other Siemens plants, which have been in operation



Goutam Bhatia
Source: Siemens

for the past several decades. This makes the plant unique as it applies all the best practices established in other plants – under one roof.

The new plant will have 500 employees when it reaches full production capacity. The manpower and production costs account for approximately 15 percent of the sales price in India compared to about 35 percent in developed countries.

Considering the present spurt in the transformer industry, it was really a tough task to get personnel. However, we are finding trained and experienced manpower. ☒

Goutam Bhatia heads the Siemens transformer facility in Kalwa, near Mumbai, India.

NewsFLASH

RAILROAD LOAN NIXED

Dakota, Minnesota & Eastern railroad was denied approval of a \$2.3 billion loan it requested to build additional rail lines.

The railroad hopes to compete against bigger railroads hauling coal for utilities, which generally support the project, according to the Associated Press.

The Federal Rail Administration, which denied the loan, said the risk was too high that the railroad would not be able to repay it.

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