



Mr. Naveen Munjal

Director – Business Development & Commercial (Conventional), CLP India

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Energetica India meets up with Mr. Naveen Munjal, Director – Business Development & Commercial (Conventional), CLP India on challenges in India's T&D system

ENERGETICA INDIA: Please share your views on India's Power Transmission and Distribution Sector?

NAVEEN MUNJAL: Power generation has been ahead of the curve vis-à-vis transmission and distribution. Today, India has almost 350,000 megawatts of installed capacity, whereas the actual peak load hasn't gone beyond 200,000 megawatts. Though we have built substantial capacity on the generation side, there is a bit of a lag in transmission and a substantial gap in the distribution sector.

The transmission sector in India has picked up, with an increase in private sector participation over the past few

years. Although a lot of projects at the intra-state level get awarded to state transmission companies on a cost-plus basis, there are quite a few projects that are available for the private sector too. A lot of new generation capacity is being set up in the form of renewable energy; however, not all those areas are well-connected to the national or the intra-state grid. Green corridors are the need of the hour, and work is already underway in this direction. There is also a need for building more transmission capacity at both the intra-state level and the inter-state level.

On the distribution front, there were a few reforms that were introduced in the



past. However, major reforms need to be undertaken to help DISCOMS. Hopefully, we will witness some progress when the proposed separation of carriage and content is implemented once the requisite amendments are made to the Electricity Act.

ENERGETICA INDIA: What are the investment opportunities you expect in the transmission sector?

NAVEEN MUNJAL: The Draft National Electricity Plan estimates an investment requirement of around \$38 billion (approximately 2.7 trillion Indian rupees) by the year 2022 in transmission.

ENERGETICA INDIA: The Indian government has come up with programmes to ramp up the pace of electrification in the country. According to you, what contribution has it made to date to the growth of the sector?

NAVEEN MUNJAL: Power is a subject which is on the Concurrent List in the Constitution, and because of that, there's only so much the Central Government can do. Each State Government should deliver what is expected of it. At the end of the day, the Central Government can only formulate overarching policies and encourage the states to reform their sectors, but the onus ultimately lies with the States.

Distribution losses are still upwards of 20 percent. The losses are in the range of 50-70 paise per unit for every unit of power sold, hence the need to resort to load shedding. The tariffs are not revised appropriately and, unfortunately, they don't recover the cost of service to customers.

There is a need for significant reforms at the State level. Some states are doing better than others. Gujarat, of course, has been at the forefront, and some states are moving forward, whereas some states, unfortunately, are still going with populist free-power/cheap-power schemes. If the poor are to be helped through the provision of power, then we must give them direct subsidies (direct-benefit transfer), but we must charge them at normal rates or at least at a minimum cost of supply. If these issues are addressed, it will spur the demand for power, attract investments into the sector, and help the GDP growth.

ENERGETICA INDIA: How do you think that 'Power for All' as a concept is relevant for a country like India?

NAVEEN MUNJAL: 'Power for All' is an absolute must. Power is not a luxury; it's a basic requirement. Despite being the third-largest producer of power in the world, we consume only 1,000 units of power per person, per year. If you look at countries like China that has a population only slightly larger than India, their per capita consumption is more than four times of India. In western economies, some of them might be 15 times of India's per capita consumption. There is a great scope to grow our demand for power. China is largely an export-driven economy that's heavy on manufacturing. While we are largely a services-driven economy, we may not necessarily move in a linear correlation with China. Even if we were to double it or increase it to two-and-half times, the kind of power we would need would be staggering.

ENERGETICA INDIA: How important is Flexible Transmission Network planning for the growth of the power sector in the country?

NAVEEN MUNJAL: A flexible transmission network is an absolute necessity. There's a lot of renewable capacity being built up in the system. Hence, there's a need to replace the traditional method of building the transmission system and for granting access to the transmission system. There's so much renewable energy potential in pockets that are currently outside the transmission network and it will be ultimately looped into the grid. Flexible transmission network planning is, therefore, the need of the hour. There needs to be more planning and concerted action between the States and the Centre in this direction. Planning at the levels of both the State and the Centre must be done together, and not in isolation. Working in isolation leads to gaps, and we can avoid this if agencies work together to create a single network.

ENERGETICA INDIA: What role will the energy storage play in strengthening country's T&D system?

NAVEEN MUNJAL: Energy storage is a vital aspect of renewable energy. Solar energy is only generated during day hours

and wind energy mainly during the monsoon. If there is storage available, the grid can be more balanced. Currently, the grid is underutilized, especially in green corridors. Even the new networks that have been installed will be underutilized unless we find a balance through storage. Until such time that storage solutions are deployed on a large scale, we must balance the grid through existing hydro and gas resources – both of which have been underutilized for a while now.

ENERGETICA INDIA: What are your recommendations for up-gradation of the country's existing transmission infrastructure to cater to present as well as future power requirement seamlessly?

NAVEEN MUNJAL: We are largely in agreement with the CII's recommendations in this matter.

- We need to have centralized planning for all transmission systems
- Grid codes must be standardized through the country
- There needs to be a separation of the Central Transmission Utility and the power grid
- There is a need for more flexible transmission network planning and improvement in the timelines for project bids
- There should be greater freedom in tower design and collection of conductors

ENERGETICA INDIA: How do you see the T&D system progressing over the next five years?

NAVEEN MUNJAL: The future is very promising, and we can only improve from our present position. The state governments should invest time, money and effort to fix the problems in the distribution sector. Once the proposed changes in the carriage and content come into effect, we believe there will be a lot more private sector participation as far as the carrier is concerned. This will spur a lot of government and private investments in the sector.