



SPML Infra Ltd recently completed a 400kV AIS substation extension project at Durgapur in West Bengal for Power Grid Corporation of India Ltd. The project was significant for SPML Infra in several respects, mainly being a challenging 400kV substation contract for the Kolkata-headquartered multi-disciplinary engineering and contracting firm. In this exclusive exchange with T&D India, we have **Subhash Sethi** discussing this project at length – the scope, the challenges and more importantly, how this experience has empowered SPML Infra to bid for more 400kV and even 765kV projects in future.

— **Subhash Sethi**, Chairman, SPML Infra Ltd

The Durgapur substation project has strengthened our business competitiveness

Let us start by getting to know more about the contract.

This contract was placed by Power Grid Corporation of India Ltd, the Central Transmission Utility. Construction activity started by end-March 2017 and we completed the project in June 2019. Some extension work was awarded in the interim and the same is scheduled for completion by March 2020. The scope of work for SPML Infra covered engineering, supply, erection, testing & commissioning of a 400/220kV AIS (air-insulated

switchgear) substation at Durgapur in West Bengal. The work also included construction of 400/220kV bays, a 315 MVA auto transformer; civil, electrical and mechanical works. (See *Project Snapshot*)

Was the Durgapur substation project part of a larger scheme?

Yes, as per detailed load flow studies carried out to evolve transmission system requirement considering future load demand of West Bengal

400/220KV SUBSTATION EXTENSION, DURGAPUR & SIX LOCATIONS: PROJECT SNAPSHOT

Project Owner	Power Grid Corporation of India Ltd
SPML Infra's scope of works	Engineering, supply, erection, testing & commissioning of 400/220kV AIS substation, 220kV bays, 315-500 MVA autotransformer, civil, electrical & mechanical works.
Suppliers Involved	GE T&D India, Crompton Greaves, ABB, Siemens, TBEA, etc
Contract Value	Rs.89.40 crore (original package value) Rs.98 crore (revised package value)
Project start date	March 30, 2017
Project end date	June 2019 (Extension work to be completed by March 31, 2020)
Time overrun	One year (due to additional scope of work)
Cost overrun	15 per cent (due to additional scope of works)



and Odisha along with other eastern states, it was recommended to establish/enhance the existing substations to 400/220kV capacities. These projects were funded by the Central Government through Power Grid Corporation of India under the Eastern Region Strengthening Scheme (ERSS). The power supply augmentation project was initiated for the extension of 400/220kV substation at Durgapur, followed by six others sites — Malda, Jeypore, Rourkela, Angul (one unit each), and Maithon (two units) — spanning the states of West Bengal, Jharkhand and Odisha.

What did the Durgapur substation project mean to SPML Infra, as a contractor?

It was a large capacity 400kV substation that we, at SPML Infra, were executing after completing substations of similar capacity in Rajasthan and West Bengal. There were also 315 MVA auto transformers to be installed. With this experience, we are delighted to be qualified to bid for 400/765kV substation projects in future. This is a big achievement for the company as we envisage that there will be a number of such projects put to bidding under several schemes to achieve the target of providing 24x7 uninterrupted power supplies to all homes.

Can you recount major challenges faced during project execution?

We did face a number of challenges during the

project execution. Major challenges included managing the strict shutdown schedule of the existing substations whilst erecting, testing and commissioning the new units. Project execution also got delayed due to engineering complexities, variations in drawings, increase in work quantity, etc.

Did the project help generate local employment?

Yes, the project engaged local semi-skilled manpower and helped provide employment to the local people.

Could you give us a macro picture as to how the project benefited West Bengal and perhaps eastern India?

As I mentioned, the project was for expansion of existing substations in West Bengal, Jharkhand and Odisha. It was implemented to enhance the reliability of the power transmission network, to make electricity supply efficient through the provision of competent electricity distribution system. Apart from the Durgapur city, power supply in the district will also get a boost with the installation of these high capacity substations. Once commissioned and operational, they are expected to improve the power supply in the designated areas, which is very relevant to India's developmental needs and plans.



Please summarize the overall positive impact that the project has had on SPML Infra.

We are very happy that our expertise in power transmission and distribution segment has been enhanced with the completion of this 400kV substation. We have also strengthened our business competitiveness for power infrastructure business and SPML Infra now has the pre-

qualification to bid for large capacity substation projects.

The project under the Eastern Region Strengthening Scheme is going to improve the reliability of power transmission. The technologically high substation and autotransformer is highly sustainable and as per the future requirements for better and quality power supply.

SPML Infra has successfully executed several power substations in T&D projects in the past, and is currently engaged with the execution of a good number of such projects in several states of the country.

We are confident that SPML Infra will be playing an important role in the development of robust power infrastructure in India and making electricity accessible to millions of people and empowering their lives. ■

Cont'd from page 96

and policies. While Kenya is further along in solar adoption, there is a long way to go in the rest of the East Africa. India is a much more mature market for rooftop solar at this stage than East Africa but that also shows the scale of opportunity there. Because of India's maturity in understanding of solar, our sales pitch is a lot easier in India. In some of the African states we are having conversations with some of the regulators to help them kick-start solar deployment and adoption through policy changes.

How do you see the years ahead for Distributed Energy in India? What will be your key growth drivers?

We are currently looking at ways to accelerate investor on-boarding for our pipeline of projects. We are evaluating investing in a fund structure



focused on solar rooftop that will accelerate rooftop solar financing and adoption. We intend to deploy 80 mw in 2020, which will provide us with an understanding of key challenges for our business model at scale. ■