

NVVN AND THE SOLAR MISSION

NTPC Vidyut Vyapar Nigam Limited (NVVN) was formed by the National Thermal Power Corporation (NTPC) Limited, as a wholly owned subsidiary with a vision to be a catalyst in the development of the wholesale power market in India, enabling the trading of surplus power.

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India requires a paradigm shift from economic activities based on fossil fuels to one based on non fossil fuels and from reliance on non renewable and depleting sources of energy to renewable sources. In June 2008 the National Action Plan on Climate Change (NAPCC) identified development of solar energy technologies in the country as one of the national missions. Consequently in 2010, the Jawaharlal Nehru National Solar Mission (JNNSM) was announced as a major initiative of the Government of India (GoI). JNNSM aims to promote an

ecologically sustainable growth while addressing India's energy security challenge and establish India as a global leader in solar energy, by creating policy conditions for its diffusion across the country as quickly as possible. It will also constitute a major contribution by India to the global effort to meet the challenges of climate change.

Formation of NVVN

NTPC Vidyut Vyapar Nigam Limited (NVVN) was created by the National Thermal Power Corporation

(NTPC) Limited, as a wholly owned subsidiary with a vision to be a catalyst in the development of the wholesale power market in India, enabling the trading of surplus power. NVVN was incorporated on 1 November 2002 with the main objective of carrying on the business of purchase and sale of all forms of electrical power, both conventional and non conventional. It was also to supply, import, export or otherwise deal with all aspects of electrical energy. It was decided by the Ministry of New and Renewable Energy (MNRE), Government of India, that the implementation of the target up to March 2013, of 1000 MW of grid connected (33 KV and above) solar power plants under the JNNSM will be through NVVN. This capacity of 1000 MW has been divided equally between solar photovoltaic (PV) and solar thermal projects.

NVVN's role in JNNSM

NVVN has been appointed as the nodal agency for entering into power purchase agreements (PPAs) with solar power generation project developers, and will directly purchase

coal based stations and NVVN will supply this bundled power to the distribution utilities. Performance guarantee is to be provided by the project developer to NVVN as a bank guarantee on the basis of Rs 50 lakh per MW of the total project capacity; 50 per cent of which is to be provided before signing the memorandum of understanding (MoU) and the balance 50 per cent before signing the PPA. In case of failure of the project developer to execute the PPA within the stipulated time period, the bank guarantee shall be encashed by NVVN. From the date of signing of the PPA the bank guarantees shall be valid for 15 and 31 months for PV and solar thermal projects, respectively.

In less than a year after the launch of the scheme, 343 bids for solar PV plants and 55 for solar thermal projects were received by NVVN. In Rajasthan, Maharashtra and Punjab 16 applicants with a total solar capacity of 84 MW (54 PV and 30 thermal) qualified for migration to JNNSM. On 24 July 2010 NVVN entered into an MoU with these applicants, while the PPA for the qualified solar capacity was signed on 15 October 2010. Indian Renewable Energy



In less than a year after the launch of the scheme in January 2010, a total of 418 bids - 343 for solar PV plants and 55 for solar thermal projects were received by NVVN.

the solar power as per the norms and guidelines fixed by the Central Electricity Regulatory Commission (CERC). That is, it will be the nodal agency for sale and purchase of grid connected solar power. Under JNNSM two types of schemes are proposed (i) the migration scheme and (ii) the new project scheme.

For each MW installed capacity of solar power for which a PPA is signed by NVVN, the Ministry of Power (MoP) shall allocate to NVVN an equivalent amount of MW capacity from the unallocated quota of NTPC

Development Agency Limited (IREDA) has already selected about 184 MW of grid connected plants.

NVVN received an overwhelming response of over 400 interested project developers to its request for selection (RfS) document, for selection of new grid connected solar power projects under JNNSM. The document was prepared on the basis of the MNRE guidelines for new

grid connected solar power projects. After evaluation of the received applications, short listed solar power project developers were informed and their bids were opened on 16 November 2010. The eligible bids offered a range of discounts and the average rate for selected plants was Rs 12.16 per unit for solar PV and Rs 11.48 per unit for solar thermal plants. NVVN had invited bids for 620 MW capacity (see table) and had shortlisted 30 solar power project developers for 150 MW of solar PV capacity and 7 solar power project developers for 470 MW solar thermal capacity. Letters inviting expression of interest (EoI) from various state utilities/discoms for purchase of solar power under Phase 1 of JNNSM have been sent out in November 2010. As on 11 January 2011 power purchase agreements of 800 MW capacity have been signed with investors and implementation is underway.

List of projects selected under JNNSM Phase 1 Batch 1 by NVVN

State	Solar project type	Capacity (MW)
Maharashtra	PV	5
Rajasthan	PV & thermal	505 (105 PV & 400 thermal)
Karnataka	PV	10
Andhra Pradesh	PV & thermal	65 (15 PV & 50 thermal)
Uttar Pradesh	PV	5
Tamil Nadu	PV	5
Orissa	PV	5
Gujarat	Thermal	20
Total		620



Future perspective

NVVN will play a very important role in the implementation of JNNSM in the years to come. NVVN has several competitive advantages, which include;

- It is promoted by NTPC Limited, one of the biggest energy operators in the country. NTPC has an excellent track record in creating energy infrastructure in India and provides a strong managerial, technical and financial background to NVVN.
- It has an excellent asset back up - NTPC's existing capacity is 32694 MW and it plans to be a 50,000 MW plus entity by 2012 and a 75,000 MW company by the end of 2017.
- NTPC has a strong network with existing utilities, which is one of the important drivers in the trading industry. This

helps NVVN to easily establish rapport and credibility with potential buyers and sellers.

- NVVN being a 100 per cent owned subsidiary of NTPC Limited, is also a government company under the Companies Act 1956. NVVN would thus enjoy strong credibility in the market.
- NVVN employees have been drawn from the professional manpower of NTPC. Most of them are engineers and chartered accountants having extensive experience in dealing with various technical and commercial issues in NTPC.

With the government having done its bit, now it is up to the industry to make India the solar capital of the world, in the years to come. 🌞

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