

RAJASTHAN RAJYA VIDYUT PRASARAN NIGAM LIMITED
OFFICE OF SUPERINTENDING ENGINEER (AUTOMATION, N/M & SP)
REGD. OFFICE VIDYUT BHAWAN, JANPATH, JYOTI NAGAR, JAIPUR-302005
Telephone No. 2740752 -- Fax No.2740794 Email se.spl@rvpn.co.in

EXPRESSION OF INTEREST
(No. RVPN/EHV/EOI/2019/1)

1. Rajasthan Rajya Vidyut Prasaran Nigam Ltd., (RVPN/ Nigam), is State Transmission Utility (STU) engaged in transmission of bulk electric power all over Rajasthan. RVPN presently have following transmission assets:

S. No.	Item Description	Details (Nos./ km) (as on 31.03.2019)
1.	EHV Substation	
	765 kV	02 Nos.
	400 kV	16 Nos.
	220 kV	121 Nos.
	132 kV	437 Nos.
2.	EHV Lines	
	765 kV	425.498 km
	400 kV	6277.896 km
	220 kV	15268.243 km
	132 kV	17617.653 km

The list of substations is available on RVPN website link:
<http://energy.rajasthan.gov.in/content/raj/energy-department/rajasthan-rajya-vidyut-prasaran-limited/en/about-us/lines-and-sub-stations.html>

2. RVPN has already taken the Smart Grid Initiative with “**Smart Transmission Network and Asset Management Scheme**” since year 2016. In this scheme the communication backbone on fiber optic with IP/MPLS technology is being established. The works on OPGW based network and related ICT infrastructure is in completion stage.
3. In the above referred communication infrastructure presently 02 Nos. of 765, 16 Nos. 400 kV, 121 Nos. 220 kV, 416 Nos. 132 kV substations along-with Generating plants at Suratgarh, KTPS (Kota), Chhabra, Ramgarh, Jawahar Sagar, Rana Pratap Sagar, Mahi-I&II, Gandhi Sagar (08 Nos. locations) are getting connected on OPGW based fiber optic network. In addition to existing 2997.436 km of OPGW network (24 Fiber), 14050 km of OPGW network (24/48 Fiber) is ordered in which 12450 km is already installed.

4. The OPGW network laid by RVPN is of 24 F on main sections and 48 F on LILO/ Common sections of Lines in which 8 Fibers are envisaged to be used for internal/ DOIT, Govt. of Rajasthan requirements. Remaining 16 Nos. dark fibers are likely to be available as spares in various links joining various substations/ locations.
5. Due to variability/ intermittency of renewable generation (solar & wind) there is a requirements of balancing of power for stability of grid. The issue can be minimized/ addressed by promoting renewable energy generation plants and battery Energy Storage resource near to load centers. It will also allow the optimum utilization of spare transmission capacities available at various substations and lines. The renewable energy generation and storage near to load center shall help in reduction of transmission incidences and losses. Multiple and distributed energy storage can provide a finer control on power balancing requirements for the stability of transmission grid.
6. With the advent of EV (Electric Vehicle) in passenger transport segment there is a need for the fast charging infrastructure at various locations. These infrastructures need ample space for parking of vehicles and high capacity power sources.
7. RVPNs substations being geographically located all over Rajasthan with ample spaces available at many substations, connected on high speed fiber optic communication network are suitable for installation of solar generation plant, Energy Storage and EV charging Infrastructure.
8. RVPN intends to monetize the available asset through a developer for,
 - a. Utilizing of spare fiber optic capacity/ towers for development of communication infrastructure for leasing.
 - b. Utilizing of available spare space/ land (wherever feasible) at substations for putting up of solar generation plant, Energy storage and EV Charging infrastructure.
9. This expression of interest is to identify the potential firms/ consultants, who can broadly under-take the following activities related to RVPN efforts to monetize the existing assets:
 - i. Survey and Identification of Fiber Optic Network and availability of fiber capacity at various locations/ substation for leasing.
 - ii. Survey and identify the potential substations where the infrastructure for solar generation, Energy storage and EV Charging can be developed by developer.
 - iii. Feasibility report of asset monetization with prospective business plan/ potential, financial modeling, regulatory requirement/ compliances etc.
 - iv. Bid process management for selection of Potential Developer

The detailed Terms of Reference shall be finalized based on the inputs received from the prospective firm/ consultants.

10. All the interested firms/ consultants who can assist RVPN in carrying out the above asset monetization efforts are invited to make their presentation/ expressing of their views as per following schedule and venue:

Venue: Conference Hall, First Floor, Vidyut Bhawan, Jaipur-302005

Schedule: 11.00 AM dated 24.10.2019.

11. In reference to this Expression of Interest, any query/ enquiry/information be made/ sought to/ from:

**Superintending Engineer (Automation, N/M & SP)
Rajasthan Rajya Vidyut Prasaran Nigam Limited
Vidyut Bhawan, Jyoti Nagar
Jaipur-302005.**

**Superintending Engineer (Automation, N/M & SP)
RVPN, Jaipur**