Patratu Vidyut Utpadan Nigam Limited at Crossroads

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ABSTRACT

Jharkhand State Electricity Board (JSEB) entered into a joint venture with NTPC Limited for performance improvement and capacity expansion of its Patratu Thermal Power Station (PTPS). Patratu Vidyut Utpadan Nigam Limited (PVUNL), the joint venture (JV) company, revived two closed units and improved the performance of the generating units but it is at crossroads due to non-viable operating conditions. The company is facing the task of developing various alternatives, making a strategic choice in running the plant.

Keywords: Strategy, Planning, Project Management, Environment Impact Assessment

INTRODUCTION

It was a bright and pleasant day at Patratu Valley on April 8, 2017. The new chief executive officer (CEO) of PVUNL, S K Patnaik was on his way to the site at Patratu in Ramgarh district of Jharkhand state of India. Patnaik was amazed at the scenic beauty of the valley which offered a beaming view of the plant amidst lush green forests and Patratu dam. PVUNL, a subsidiary of NTPC Limited, is a JV of NTPC and Jharkhand Bijali Vitaran Nigam Limited (JBVNL), an arm of JSEB representing the government of Jharkhand (GoJ). A memorandum of agreement (MOA) had been entered on May 3, 2015 (Gauba, 2015) and assets were transferred to PVUNL on April 1, 2016. In the JV, NTPC and JBVNL had a stake of 74% and 26%, respectively. In this venture, running of the units in the present configuration proved costly but stopping of operations of the units would lead to breaching of JV agreement (Biswas, 2016). Making other units ready for operation needed funds which were not forthcoming. Phasing out of all the units was not recommended even when the power generation from these units would be costlier as millions were spent for the renovation and modernization (R&M) of Units#9 and 10. Public hearing and Environment Impact Assessment (EIA) (Appendix A) for the new project of 3*800 MW, which would generate power at much lesser cost, had to be started to get environmental approvals (Appendix B). He

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found himself at a crossroad; whether to go full hog to rejuvenate the old plant or to close them down and concentrate on a new project of higher capacity and efficiency.

Patnaik had been with the NTPC Limited for over 34 years. He had seen it grow many folds. He was a pioneer in project planning and execution at NTPC plants like Ramagundam, Dadri, Lara, and the Corporate Center. He also had lead operation and maintenance (O&M) functions of the gas and coal-based thermal power plants. He had set many benchmarks while heading the project construction team of NTPC at Dadri and Lara. Before joining as the CEO of PVUNL, he was the regional head of the operational services of the company in the western region II.

NATIONAL THERMAL POWER CORPORATION LIMITED

The National Thermal Power Corporation Limited is a Central Public Sector Undertaking in India. Since its inception in 1975, it has expanded vertically and horizontally into the business of power generation, distribution, trading of power, coal mining, equipment manufacturing, ash utilization, rural electrification, consultancy, and many more. It has 20 coal based, 7 gas based, 1 hydro based, 1 wind based, and 11 solar based power generating station of 51635 MW capacity including 9 joint venture projects (NTPC Overview, 2017). It plans to be a 130 GW1 company by the year 2032. It has 22 new projects worth 19692 MW under different stages of execution in India, Sri Lanka, and Bangladesh. The turnover and profit after tax of the company in the financial years 2015-2016 were US\$ 10.84 billion and US\$ 1.6 billion, respectively (40th Annual Report 2015-16, 2016).

To support India meet Global Sustainable Development Goal (GSDG) 2030, NTPC plans to limit fossil fuel sources to 70% enhancing the contribution from non-fossil fuel to 30% by 2032 (Appendix C). It has a target to hold a market share of 25% in ancillary services and storage business, and 10% for the supply of electricity in e-mobility business (NTPC Overview, 2017). It has got ten coal mines from the government of India (GoI) for its captive usage. GoI has also given permission for oil and gas exploration.

The National Thermal Power Corporation Limited has acquired four power plants in Uttar Pradesh (UP), Odisha, and Delhi. It has JVs with many other power generating companies or state governments. It has five subsidiaries, where it holds a majority share and many JVs in the field of power generation. PVUNL is a subsidiary of NTPC in JV with JBVNL. NTPC has expertise in performance improvement by providing consultancy to other power generating companies as demonstrated in Accelerated Power Development and Reform Program (APDRP) launched in 2002 by the GoI which helped many thermal power plants of India improve their productivity.

JHARKHAND URJA UTPADAN NIGAM LIMITED

The Jharkhand State Electricity Board is the successor of Bihar Electricity Board (BSEB) in Jharkhand after bifurcation of Bihar state into Bihar and Jharkhand states in 2000. For proper management of the loss-making JSEB, Energy Department of GoJ unbundled it into four

¹ GW stands for Gigawatt, 1 GW = 1000 MW = 1000000KW; Consumption of 1KW power for 1 HR makes 1 unit (KWH).

companies vide notification no. 18 dated January 6, 2014. These are Jharkhand Urja Vikash Nigam Limited (JUVNL) for energy policymaking, Jharkhand Urja Sancharan Nigam Limited (JUSNL) for transmission, Jharkhand Bijili Vitaran Nigam Limited (JBVNL) for distribution, and Jharkhand Urja Utpadan Nigam Limited (JUUNL) for generation (*JSEB is unbundling*, 2014). PTPS at Patratu, with an installed capacity of 840 MW was the only thermal power generating station for JUUNL.

PATRATUTHERMAL POWER STATION

Construction of this plant started in 1962 in collaboration with Russia. The plant had ten power generation units with a capacity of 840MW.² The average age of Russian units (units#1 to 6) is42 years and Indian units (units#7 to 10) is 32 years. Due to unviable operating conditions, operations of units#1, 2, 3, 5, and 7 were stopped (Appendix D). These units were phased out by the Central Electricity Authority (CEA). When the assets were transferred to PVUNL on April 1, 2016, only unit number 10 was operating at a PLF of 70% and all other units were out of service either due to equipment failure or system renovation and modernization (R&M).

PATRATU VIDYUT UTPADAN NIGAM LIMITED

The National Thermal Power Corporation Limited deputed Basuki Nath Jha, Additional General Manager (AGM) in 2009 for discussion with Jharkhand state government for taking control of PTPS. After due diligence, a proposal for total takeover of PTPS was mooted which was opposed by PTPS workers. Then it was proposed to set up 2*660 MW units. Other revival plans were also discussed. In an interaction, Jha recollected that CEA had recommended phasing out unit nos. 1, 2, 3, 5, and 8 due to poor conditions and obsolescence of equipments. It had recommended phasing out units # 4 and 6 by 2017 and run units 7, 9, and 10 after proper R&M.

Looking at the long experience of successfully running JVs, and turn around capability of NTPC (Appendix E), GoJ and NTPC signed a MoA on May 3, 2015 for creating a JV company (Sankalp 782, 2016). NTPC and JBVNL, on behalf of GoJ, formed a JV on July 29, 2015 with 74:26 equity holding. The purpose of the JV was to improve PLF of PTPS from 15% to 82% and set up an efficient super critical thermal power plant of 4000 MW in two phases (Gauba, 2015). GoJ became a JV partner by virtue of the valuation of PTPS plant, machinery, buildings, civil structures, land, current assets, industrial scrap, and spares inside the plant. PVUNL was incorporated on October 15, 2015 and assets of PTPS were transferred by GoJ to PVUNL on April 1, 2016 (Cabinet Proceedings No. 32, 2016).

Sanjay Kumar, the principal secretary to the chief minister of Jharkhand, said in an informal meeting that the GoJ hoped to provide affordable and uninterrupted power to every household, every farmer, and every industry in the state with this JV. 24 × 7 power to industries would lead to rapid industrialization and provide employment to youth of the state, he opined. According to the JV agreement employee or worker of PTPS would be laid off. He revealed that GoJ wanted the earliest restoration of the generation of power to its declared capacity of 325 MW and GoJ would extend all possible help to PVUNL for the earliest start of the work for phase I of 3*800 MW.

² 4 units of 50 MW, 2 units of 100 MW, 4units of 110 MW.