

CHAPTER 1

INTRODUCTION

1.1 About the Jharkhand State Electricity Regulatory Commission

The Jharkhand State Electricity Regulatory Commission (herein after referred to as the JSERC or the Commission) was constituted by the Government of Jharkhand under Section 17 of the Electricity Regulatory Commission Act, 1998 (herein after referred to as the ERC Act), vide the Department of Energy's notification No. 1763 dated August 22, 2002. The Commission became operational on April 24, 2003. The Government notified the functions and the duties of the Commission as per Section 22 (1) and (2) of the ERC Act.

1.2 Functions of the JSERC

The Commission has been mandated to discharge the following functions listed under section 22(l) of the ERC Act. This section is reproduced below:

Quote

- (a) To determine the tariff for electricity, wholesale, bulk, grid or retail, as the case may be in the manner provided in Section 29.
- (b) To determine the tariff payable for the use of the transmission facilities in the manner provided in Section 29.
- (c) To regulate power purchase and procurement process of the transmission utilities including the prices at which power shall be procured from the generating companies, generating stations, or from other sources for transmission, sale, distribution and supply in the state.
- (d) To promote competition, efficiency and economy in the activities of electricity industries to achieve the objects and purposes of the Act.

Unquote

1.3 Tariff determination by the State Electricity Regulatory Commission (SERC)

The Commission is guided by Section 86 of the Electricity Act 2003 (herein after referred to as the Act), which enunciates the principles to be followed for the determination of tariff. The Commission is also guided by the National Electricity Policy and the National Tariff Policy.

While determining generation tariff, SERC is guided by the JSERC (Terms and Conditions for Determination of Thermal Generation Tariff) Regulations, 2004. These regulations are based on the principles and methodologies specified by the Central Commission for generation.

1.3.1 Electricity Act 2003:

Section 86 of the Act states the following:

Quote

86. Functions of the State Commission. – (1) The State Commission shall discharge the following functions, namely: -

(a) determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be within the State:

Provided that where open access has been permitted to a category of consumers under Section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;

(b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;

(c) facilitate intra-state transmission and wheeling of electricity;

(d) issue licenses to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;

(e) promote co-generation and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee;

(f) adjudicate upon the disputes between the licensees, and generating companies and to refer any dispute for arbitration;

(g) levy fee for the purposes of this Act;

(h) specify State Grid Code consistent with the Grid Code specified under clause (h) of sub-section (1) of section 79;

(i) specify or enforce standards with respect to quality, continuity and reliability of service by licensees;

(j) fix the trading margin in the intra-State trading of electricity, if considered, necessary and

(k) discharge such other functions as may be assigned to it under this Act.

(2) The State Commission shall advise the State Government on all or any of the following matters, namely: -

- (i) promotion of competition, efficiency and economy in activities of the electricity industry;
- (ii) promotion of investment in electricity industry;
- (iii) reorganization and restructuring of electricity industry in the State;
- (iv) matters concerning generation, transmission, distribution and trading of electricity or any other matter referred to the State Commission by that Government.

Unquote

1.3.2 National Electricity Policy:

The National Electricity Policy (herein after referred to as the NEP) was announced in February 2005 by the Central Government. The policy aims to achieve the following objectives in the next five years:

- Access to electricity - Available for all households in next five years
- Availability of power - Demand to be fully met by 2012. Energy and peaking shortages to be overcome and adequate spinning reserve to be available.
- Supply of reliable and quality power of specified standards in an efficient manner and at reasonable rates.
- Per capita availability of electricity to be increased to over 1000 units by 2012.
- Minimum lifeline consumption of 1 unit/household/day as a merit good by year 2012.
- Financial Turnaround and Commercial Viability of Electricity Sector.
- Protection of consumers' interests.

Some of the important provisions of the NEP with regard to determination of tariffs is given below:

Section 5.8.3

Quote

Capital is scarce. Private sector will have multiple options for investments. Return on investment will therefore, need to be provided in a manner that the sector is able to attract adequate investments at par with, if not in preference to, investment opportunities in other sectors. This would obviously be based on a clear understanding and evaluation of opportunities and risks. An appropriate balance will have to be maintained between the interests of consumers and the need for investments.

Unquote

Section 5.8.5

Quote

Competition will bring significant benefits to consumers, in which case, it is competition that will determine the price rather than any cost plus exercise on the basis of operating norms and parameters. All efforts will need to be made to bring the power industry to this situation as early as possible, in the overall interest of consumers. Detailed guidelines for competitive bidding as stipulated in section 63 of the Act have been issued by the Central Government.

Unquote

Section 5.4.4

Quote

MYT framework is an important structural incentive to minimize risks for utilities and consumers, promote efficiency and rapid reduction of system losses. It would serve public interest through economic efficiency and improved service quality. It would also bring greater predictability to consumer tariffs by restricting tariff adjustments to known indicators such as power purchase prices and inflation indices.

Unquote

1.3.3 National Tariff Policy

The National Tariff Policy was notified in January 2006. The broad objectives of the policy are:

Section 4.0

Quote

- (a) Ensure availability of electricity to consumers at reasonable and competitive rates;
- (b) Ensure financial viability of the sector and attract investments;
- (c) Promote transparency, consistency and predictability in regulatory approaches across jurisdictions and minimise perceptions of regulatory risks;
- (d) Promote competition, efficiency in operations and improvement in quality of supply.

Unquote

The National Tariff Policy has laid out the framework for performance-based cost of service regulation. The provisions of the policy that apply to generation tariffs are listed below:

Section 5.3

Quote

a) Return on Investment

Balance needs to be maintained between the interests of consumers and the need for investments while laying down rate of return. Return should attract investments at par with, if not in preference to, other sectors so that the electricity sector is able to create adequate capacity. The rate of return should be such that it allows generation of reasonable surplus for growth of the sector.

The Central Commission would notify, from time to time, the rate of return on equity for generation and transmission projects keeping in view the assessment of overall risk and the prevalent cost of capital which shall be followed by the SERCs also.

While allowing the total capital cost of the project, the Appropriate Commission would ensure that these are reasonable and to achieve this objective, requisite benchmarks on capital costs should be evolved by the Regulatory Commissions.

b) Equity Norms

For financing of future capital cost of projects, a debt:equity ratio of 70:30 should be adopted. Promoters would be free to have higher quantum of equity investments. The equity in excess of this norm should be treated as loans advanced at the weighted average rate of interest and for a weighted average tenor of the long term debt component of the project after ascertaining the reasonableness of the interest rates and taking into account the effect of debt restructuring done, if any. In case of equity below the normative level, the actual equity would be used for determination of return on equity in tariff computations.

c) Depreciation

The Central Commission may notify the rates of depreciation in respect of generation and transmission assets. The rates of depreciation so notified would be applicable for the purpose of tariffs as well as accounting. There should be no need for any advance against depreciation. Benefit of reduced tariff after the assets have been fully depreciated should remain available to the consumers.

d) Cost of Debt

Structuring of debt, including its tenure, with a view to reducing the tariff should be encouraged. Savings in costs on account of subsequent restructuring of debt should be suitably incentivised by the Regulatory Commissions keeping in view the interests of the consumers.

e) Cost of Management of Foreign Exchange Risk

Foreign exchange variation risk shall not be a pass through. Appropriate costs of hedging and swapping to take care of foreign exchange variations should be allowed for debt obtained in foreign currencies. This provision would be relevant only for the projects where tariff has not been determined on the basis of competitive bids.

f) Operating Norms

Suitable performance norms of operations together with incentives and dis-incentives would need to be evolved along with appropriate arrangement for sharing the gains of efficient operations with the consumers. The operating parameters in tariffs should be at “normative levels” only and not at “lower of normative and actuals”. This is essential to encourage better operating performance. The norms should be efficient, relatable to past performance, capable of achievement and progressively reflecting increased efficiencies and may also take into consideration the latest technological advancements, fuel, vintage of equipments, nature of operations, level of service to be provided to consumers etc. Continued and proven inefficiency must be controlled and penalized.

The Central Commission would, in consultation with the Central Electricity Authority, notify operating norms from time to time for generation and transmission. The SERC would adopt these norms. In cases where operations have been much below the norms for many previous years, the SERCs may fix relaxed norms suitably and draw a transition path over the time for achieving the norms notified by the Central Commission.

g) Renovation and Modernisation

Renovation and modernization (it shall not include periodic overhauls) for higher efficiency levels needs to be encouraged. A multi-year tariff (MYT) framework may be prescribed which should also cover capital investments necessary for renovation and modernization and an incentive framework to share the benefits of efficiency improvement between the utilities and the beneficiaries with reference to revised and specific performance norms to be fixed by the Appropriate Commission. Appropriate capital costs required for pre-determined efficiency gains and/or for sustenance of high level performance would need to be assessed by the Appropriate Commission

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1.4 About TVNL

The TVNL a wholly owned Generating Company of Government of Jharkhand was constituted in 1987 under Indian Company's Act 1956. The company owns and operates the Tenughat

Thermal Power Station with an installed capacity of 420 MW with two units of 210 MW each. The units were commissioned as detailed below:

- Unit – I September 1996
- Unit – II September 1997

With the creation of Jharkhand state on November 15, 2000 from the erstwhile Bihar State, TVNL has become an undertaking of Government of Jharkhand.

1.5 Tariff Order for TVNL for FY 2005-06

TVNL filed its petition on September 7, 2005 for setting generation tariff for the year 2005-06. The Commission's staff visited the plant and sought for some clarification and details from TVNL in December 2005. The Commission invited comments from the public but did not receive any objections. The Commission conducted a public hearing on January 28, 2006.

The Commission issued the Generation Tariff Order of FY 2005-06 for TVNL on March 30, 2006. This Order was made effective from January 1, 2006. The Commission approved an aggregate tariff of Rs. 1.90 per unit that comprised fixed charge of Rs.1.049 per unit and variable charge of Rs.0.855 per unit.

1.6 Tariff filing by the TVNL for 2007-08: Procedural Background

The TVNL had filed a petition on July 6, 2007, seeking revision of the existing generation tariff. The filing was made under Section 64 of the Act and JSERC (Terms and Conditions for Determination of Thermal Generation Tariff) Regulations, 2004 issued by the Commission. The Commission undertook a detailed examination of the filing and identified important information requirements. The Commission then accepted this petition on August 17, 2007.

The TVNL issued a public notice on September 1, 2007 in the local newspapers of Jharkhand viz. Prabhat Khabar, Hindustan, Ranchi Express, Dainik Jagran (all Hindi) and Hindustan Times (English) seeking objections/ comments/ suggestions on the tariff petition submitted by TVNL to the JSERC.

1.7 Submission of Objections and conduct of public hearing

The Commission issued a public notice on October 25, 2007 seeking objections on the tariff petition filed by TVNL for FY 2007-08. This notice was issued in all the leading newspapers of Jharkhand, viz, Prabhat Khabar, Hindustan, Ranchi Express, Dainik Jagaran AAJ, (all Hindi), Hindustan Times (English) and Farooqui Tanzeem, Siyasi Ufuque and Quami Tanzeem (all Urdu)

The Commission however did not receive any suggestions/objections. The Commission conducted a public hearing on November 3, 2007 at the Commission's premises in Ranchi. The Commission, on the basis of its analysis of the petition raised some issues with TVNL. The Commission has considered these while analyzing the tariff petition submitted by TVNL and these are discussed in detail in Chapter 5 & 6 of this order.

1.8 Interaction with the staff of TVNL

The Commission communicated regularly with the officers of the TVNL in order to validate the information submitted by them and to consider their views on different aspects of the tariff petition.