

**Jharkhand State Electricity Regulatory
Commission, Ranchi**



ANNUAL REPORT

2017-18

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List of Abbreviations

Abbreviation Full Form

AERA	Airport Economic Regulatory Authority
APTEL/ATE	Appellate Tribunal for Electricity
ARR	Annual Revenue Requirement
BAU	Birsa Agricultural University
BEE	Bureau of Energy Efficiency
BIT	Birla Institute of Technology
BU	Billion Units
CAC	Central Advisory Committee
CAG	Comptroller and Auditor General
CCI	Competition Commission of India
CCL	Central Coalfields Limited
CERC	Central Electricity Regulatory Commission
CGRF	Consumer Grievance Redressal Forum
DELP	Domestic Efficient Lighting Program
DISCOM	Distribution Company
DRDO	Defence Research and Development Organisation
DVC	Damodar Valley Corporation
EA	Electricity Act
ER	Eastern Region
ERC	Eastern Regional Power Committee
FOIR	Forum of Indian Regulators
FOR	Forum of Regulators
FPPPA	Fuel Power Price Purchase Adjustment
GOI	Government of India
GSES	Grid Security Expert System
HPS	Hydro Power Station



IEX	Indian Energy Exchange
IICM	Indian Institute of Coal Management
IIT	Indian Institute of Technology
IPP	Independent Power Producer
ISTS	Inter State Transmission System
JERC	Joint Electricity Regulatory Commission
JV	Joint Venture
KV	Kilo Volt
KW	Kilo Watt
KWh	Kilo Watt Hour
MNRE	Ministry of New and Renewable Energy
MoP	Ministry of Power
MU	Million Units
MW	Mega Watt
MYT	Multi Year Tariff
NJA	National Judicial Academy
NLDC	National Load Dispatch Centre
NTPC	National Thermal Power Corporation
NUSRL	National University of Study of Law and Research
O&M	Operation and Maintenance
RU	Ranchi University
SAC	State Advisory Committee
SAIL	Steel Authority of India Limited
SAFIR	South Asia Forum for Infrastructure Regulations

1. The Commission

- 1.1 The Jharkhand State Electricity Regulatory Commission (JSERC) was constituted by the Government of Jharkhand in August 2002 in accordance with the Regulatory Commissions Act, 1998 and was operationalised on 24th of April 2003 after the Chairman took oath of the office.
- 1.2 The Commission consists of a Chairperson and two Members. During the year under report on attaining the age of 65 years Hon'ble Mr. Justice N.N. Tiwari Chairperson JSERC demitted the office on 22nd May 2017. Thereafter on being appointed as chairperson, JSERC, Dr. Arbind Prasad, IAS (Retd.) was administered the oath of office and secrecy on 17.07.2017 by Hon'ble Her Excellency Smt. Draupadi Murmu, Governor of Jharkhand.



Hon'ble Dr. Arbind Prasad making and subscribing oath of office and secrecy before Her Excellency- Smt. Draupadi Murmu, Governor of Jharkhand

- 1.3 Office of the Commission - The Government of Jharkhand has allotted a piece of land measuring 0.78 acres at Hinoo, Ranchi to the Jharkhand State Electricity Regulatory Commission for construction of its office building. The Jharkhand State Building Construction Corporation Ltd (JSBCCL) prepared a building plan and DPR and submitted to the State



Government. The matter is under active consideration of the Government.

Presently the office of the Jharkhand State Electricity Regulatory Commission is functioning in a rented premises of Rajendra Jawan Bhawan at Sainik Market, Main Road, Ranchi which is in the heart of the City.

Mission Statement

The Commission intends to promote competition, efficiency and economy in bulk power markets, improve the quality of supply, promote investments and advise Government on the removal of institutional barriers to bridge the demand supply gap and thus foster the interests of consumers. In pursuit of these objectives, the Commission aims to – Formulate an efficient tariff setting mechanism, which ensures speedy and time bound disposal of tariff petitions, promote competition, economy and efficiency in the pricing of bulk power and transmission services and ensure least cost investments, Facilitate open access in intra-state transmission, Facilitate intra-state trading, Promote development of power market, Improve access to information for all stakeholders, Facilitate technological and institutional changes required for the development of competitive markets in bulk power and transmission services, Advise on the removal of barriers to entry and exit for capital and management within the limits of environmental, safety and security concerns and the existing legislative requirements, as the first step to the creation of competitive markets.

1.4 Guiding Principles - To pursue the mission statement and its goals, the Commission is guided by the following principles:

- Remain equitable in conflict resolution brought to it through petitions after providing sufficient and equal opportunity to participants to be heard.
- Maintain regulatory certainty by remaining consistent in views on one hand and being open minded to adopting change in the evolving power sector on the other.
- Adopt a stakeholder consultation and participative process in formulation of its regulations to ensure that the regulations are in line with the expectations of stakeholders.
- Ensure optimal allocation of resources in the power sector using regulatory and market based mechanism.
- Encourage sustainable development by promoting renewable sources in the power generation.



1.5 Outcome of Regulatory Processes in terms of benefits to Consumers and Development of the Sector

Benefits to Consumers

One of the guiding principles of JSERC is to protect the interest of civil society, including those of consumers and suppliers, while remaining fair, transparent and neutral to all stakeholders. The initiatives taken by JSERC to safeguard the interests of consumers are listed below:

a. Green Energy for environment security

Enabling provision was made to facilitate installation of generation based on renewable energy sources in the premises of existing thermal generating stations for optimum utilization of resources.

b. Quality of Power

Stringent Unscheduled Interchange (UI) charges as deterrent against grid indiscipline. Responsibility on the persons in-charge of Transmission utility/Load dispatchers for grid indiscipline.

c. Promotion of Green Energy

Green energy comes from natural sources such as sunlight, wind, rain, tides, plants, algae and geothermal heat. These energy resources are renewable, meaning they're naturally replenished. In contrast, fossil fuels are a finite resource that take millions of years to develop and will continue to diminish with use.

Renewable energy sources also have a much smaller impact on the environment than fossil fuels, which produce pollutants such as greenhouse gases as a by-product, contributing to climate change. Gaining access to fossil fuels typically requires either mining or drilling deep into the earth, often in ecologically sensitive locations.

Green energy, however, utilizes energy sources that are readily available all over the world, including in rural and remote areas that don't otherwise have access to electricity. Advances in renewable energy technologies have lowered the cost of solar panels, wind turbines and other sources of green energy, placing the ability to produce electricity in the hands of the people rather than those of oil, gas, coal and utility companies.

Green energy can replace fossil fuels in all major areas of use including electricity, water and space heating and fuel for motor vehicles.

2. Our Chairperson – Hon'ble Dr. Arbind Prasad



Dr. Arbind Prasad was administered the oath of office of the Chairperson, Jharkhand State Electricity Regulatory Commission (JSERC) on 17.07.2017 by Her Excellency the Governor of Jharkhand.

Dr. Arbind Prasad has been Director General, Federation of Indian Chambers of Commerce and Industries (FICCI) from May, 2012 to March, 2016. He has also served as Managing Director of Invest India, has been a Member on the Board of Management of Delhi Technical University, on the Executive Committee of Bureau of Indian Standard (BIS), and on the CAG's Audit Advisory Board.

Dr. Arbind Prasad has over 30 years of experience as an IAS officer (September 1980 to April 2012) working both in Government of India and the State Government of Bihar. In Government of India, he served as Senior Advisor (Power & Energy), Planning Commissions and Joint Secretary, Social Defence. He was on the Board of Directors of Nuclear Power Corporation of India Ltd. (NPCIL), and Bhartiya Vidyut Nigam (Bhavini).

In the State Government, in addition to various other assignments, he worked as Secretary to the Government in the Department of Energy and Department of Institutional Finance & Program Implementation. He also served as



Divisional Commissioner, Patna and as District Magistrate of Patna and Saharsa.

He has also been the Director of L.N. Mishra Institute of Economic Development and Social Change.

Dr. Prasad has done B. Tech. in Electrical Engineering from IIT Kanpur (1974-79), and Masters and Ph.D. in Management from Yale University, USA (1994-98). He was adjudged to be the best outgoing student of Electrical Engineering and awarded Gold Medal by IIT, Kanpur. He has been the recipient of Yale University Fellowship throughout his study at Yale University.

Dr. Prasad has several publications including on Policy for Structural Reforms for India's Economic Development and other policy related issues.

3. Profile of Hon'ble Shri Rabindra Narayan Singh, Member (Technical)



Hon'ble R.N. Singh, Member (Engg.) J.S.E.R.C., Ranchi, born on 10th January, 1956, completed his Electrical Engineering Degree in the year 1981 and got the degree of Ex-PGDM in Operation Research from IIM, Ranchi.

He worked as lecturer for a short time in Engineering College. Later on, he joined Bihar State Electricity Board as Assistant Executive Engineer and rose to the highest post of Chief Engineer in Jharkhand State Electricity Board (Presently JUSNL). During his service tenure, spanning over 32 years he served in different wings comprising generation, transmission - operation, maintenance as well as construction. Was awarded certificate of appreciation by Jharkhand State Electricity Board for devotion and outstanding performance.

He completed 6 months Training Programme conducted by Power Engineers Training Society (A Govt. of India undertaking) at Badarpur, (Simulator Training of 210 MW Thermal Power), Neyveli and Tuticurin (Tamil Nadu).

He participated in national conclave on "INCLUSIVE & IMPACTFUL CSR" organised by Indian Institute of Management, Ranchi. Has been awarded certificate of excellence on successful completion of RIO+20 India Certificate Programme for short terms course study in sustainable development.



Got certificate of participation and completion of Capstone Business Simulation on behalf of Management Simulations Inc. USA. He also participated in SMART GRID Training Programme.

With work devotion, assertive leadership and exceptional skill, he played a pivotal role in timely completion of inter-state EHT line, Rupnarayanpur-Dumka and other lines as well as Grid substations during his tenure as General Manager-cum-Chief Engineer (Transmission Zone), Dumka and attracted all round laurel including a letter of appreciation by Jharkhand Urja Sancharan Nigam Ltd. for meeting the target even in adverse situation.



4. Objectives of the Commission

The Commission is expected to take measures conducive to development of electricity industry, promoting competition therein, protecting the interest of the consumers, rationalization of tariff and ensuring transparency in its functioning in the State of Jharkhand.

5. Duties and Responsibilities of the Commission

The functions of the SERCs are prescribed in Section 86 of the Electricity Act 2003 which are as follows.

1. The State Commission shall :

- 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 cogeneration 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.
3. The State Commission shall ensure transparency while exercising its powers and discharging its functions.
4. In discharge of its functions the State Commission shall be guided by the National Electricity Policy, National Electricity Plan and tariff policy published under section 3 of the Electricity Act, 2003.

6. Regulations of the Commission

The regulations are made by the Commission in exercise of its power as provided in Section 181 of Electricity Act 2003 to carry out the provisions of the said Act. The Commission frames all its regulations through a fully consultative and transparent process. Draft concept papers are uploaded on the Commission's website and comments and suggestions are invited from all stakeholders – the power utilities, the consumers and all other institutions involved in the electricity industry. Thereafter the Commission invariably holds a public hearing in which yet another opportunity is given to all stakeholders to make comments and give suggestions. On completion of this process the regulations are finalized, notified and uploaded on the Commission's web-site.

The Commission has so far made and notified the following Regulations:-

- i) JSERC (State Advisory Committee) Regulations 2003



- ii) JSERC (Delegation of financial powers), Regulation, 2004
- iii) JSERC (Open Access in Intra-State Transmission and Distribution) Regulations, 2005.
- iv) JSERC (Distribution License Conditions) Regulations, 2005.
- v) JSERC (Procedure, Terms and Conditions for grant of Intra-State Trading Licence) Regulations, 2006
- vi) JSERC Regulations in respect of methods and principles for fixation of charges including cross subsidy charges recoverable by distribution licensee for supply of Electricity (In short methods and principles of fixing electricity charges).
- vii) JSERC (State Grid Code), Regulations 2008
- viii) JSERC (Demand Side Management) Regulations, 2010.
- ix) JSERC (Determination of Tariff for Procurement of Power from Solar PV Power Project and Solar Thermal Power Project
- x) JSERC (Compliance Audit for Regulated Entities) Regulations, 2011
- xi) JSERC (Guidelines for Establishment of Forum for Redressal of Grievances of the Consumers and Electricity Ombudsman) Regulations, 2011
- xii) Format for Levy of Collection of Fees and Charges by SLDC
- xiii) JSERC (Electricity Supply Code) Regulations 2015
- xiv) JSERC (Standards of Performance) Regulations 2015
- xv) JSERC (Rooftop Solar PV Grid Interactive Systems and Net/ Gross Metering) Regulations, 2015
- xvi) JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2015
- xvii) JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2015
- xviii) JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015
- xix) JSERC (Determination of Tariff for procurement of power from wind, biogas, municipal solid waste and refuse derived fuel based power projects) regulations, 2016
- xx) JSERC (Small hydro Tariff) Regulations 2016



- xxi) JSERC (Scheduling and forecasting for wind and solar) Regulations 2016
- xxii) JSERC (Renewable Energy Purchase Obligation and its Compliance) Regulations 2016
- xxiii) JSERC (Power Regulatory Accounting) Regulations 2016
- xxiv) JSERC (Determination of Tariff for procurement of Power from Biomass-Rankine and Gasification based projects and non-fossil fuel based co-generation projects) Regulations 2016
- xxv) JSERC (Determination of Tariff for Procurement of Power from Solar PV Power Project and Solar Thermal Power Project 2016
- xxvi) JSERC (Intra State Open Access) Regulations 2016
- xxvii) JSERC (Conduct of Business) Regulations 2016

7. Determination of Tariff

Tariff is determined by the Commission in discharge of its duty prescribed in Section 62 of the Electricity Act -2003 for the following :-

- i) Supply of Electricity by a Generating Company to a Distribution Company.
- ii) Transmission of Electricity.
- iii) Wheeling of Electricity.
- iv) Retail sale of Electricity

Just as in the case of the preparation and notification of its regulations, the Commission follows a totally consultative, interactive and transparent process determining and issuing tariff orders.

Tariff petitions are filed by all generating entities and licensees in accordance with an annual schedule laid down in the Commission's Regulations. Comments of all stakeholders are invited in respect of all tariff petitions. Thereafter, public hearings are held invariably. These public hearings are mandated by the Electricity Act, 2003 and are the most appropriate forum for obtaining opinions, suggestions and objections that are necessary for arriving at the most appropriate and balanced tariffs. In respect of JBVNL, such public hearings are held in at least five places across the State. After this transparent consultative process is complete, tariff orders are finalised, notified and uploaded on the Commission's website.



8. Dissemination of information

The Commission makes available information to the public and stakeholders through press and Commission official website.

9. State Advisory Committee (SAC)

The Commission constituted the State Advisory Committee (SAC) as required under Section 87 of Electricity Act, 2003.

9.1 Objectives of SAC

To advice the Commission on:

- (a) Major policy issues
- (b) Matter relating to quality, continuity and extent of service provided by the licensee
- (c) Compliance by licensees with conditions and requirements of their license
- (d) Protection of consumer interest
- (e) Electricity supply and overall standard of performance by utilities

9.2 The fourth SAC was constituted on 19th February 2014 for a period of two years which has been extended upto 31st March 2018. The following are the Members of the State Advisory Committee:-

1. Principal Secretary, Department of Energy, - Ex-Officio Member, Govt. of Jharkhand
2. Principal Secretary, Department of Food, Public Distribution & Consumer, Government of Jharkhand - Ex-Officio Member
3. CMD, Jharkhand Urja Vikas Nigam Ltd, Ranchi or his representative not below the rank of General Manager.
4. M.D., Jharkhand BijliVitrana Nigam Ltd, Ranchi or his representative not below the rank of General Manager.
5. M.D., Jharkhand UrjaSancharan Nigam Ltd, Ranchi or his representative not below the rank of General Manager.
6. M.D., Jharkhand UrjaUtpadan Nigam Ltd, Ranchi or his representative not below the rank of General Manager.
7. CMD, DVC, Kolkata or his representative not below the rank of General Manager.
8. M.D. JUSCO, Jamshedpur, or his representative not below the rank of General Manager.
9. M.D. Tata Steel Ltd, Jamshedpur or his representative not below the rank of General Manager.
10. M.D. SAIL/Bokaro Steel Plant, B.S. City or his representative not below the rank of General Manager.



11. M.D., TenughatVidyut Nigam Ltd., Hinoo, Ranchi or his representative not below the rank of General Manager.
12. G.M. (Electrical), Tata Power Company Ltd., Jamshedpur.
13. C.M.D. CCL, Ranchi or his representative not below the rank of General Manager dealing with Electricity matter.
14. C.M.D. Mecon, Ranchi or his representative not below the rank of General Manager dealing with Electricity matter.
15. CMD, HEC, Dhurwa, Ranchi or his representative not below the rank of General Manager dealing with Electricity matter.
16. Vice-Chancellor, Birsa Agricultural University, Kanke, Ranchi or his representative.
17. Head of the Department (Electrical), BIT Mesra, Ranchi.
18. Chief Electrical Distribution Engineer, SE Rlys, Kolkatta.
19. President, Federation of Jharkhand Chamber of Commerce & Industries, Ranchi.
20. President, All India Chambers of Consumers, West Singhbhum, Chaibasa.
21. President, LaghuUdyogBharti, Jamshedpur
22. President, Adityapur Small Industries Association, Adityapur, Saraikela-kharsawan
23. President, Jharkhand Small Tiny Service & Business Enterprises Association, B.S. City.
24. President, Jharkhand Small Scale Industries Association, Ranchi
25. General Secretary, Dhanbad Flour Mills Association, Dhanbad
26. General Secretary, Santhal Pargana Small Industries Association, Deoghar
27. President Bokaro Employees Leased House Welfare Society, Bokaro

9.3 SAC Meeting held during the year 2017-18

S.N.	Date	Venue
1.	10 th April 2017	Hotel Ranchi Ashok, Ranchi
2.	15 th September 2017	Indian Medical Association Hall, Ranchi
3.	05 th February 2018	Hotel Ranchi Ashok, Ranchi
4.	21 st March 2018	Hotel Capitol Hill, Ranchi



Former Chairperson Hon'ble Justice N.N. Tiwari and Hon'ble Mr. Rabindra Narayan Singh, Member (Technical) during a SAC Meeting in the month of April 2017



Chairperson Hon'ble Dr. Arbind Prasad and Hon'ble Mr. Rabindra Narayan Singh, Member (Technical) during a SAC Meeting in the month of March 2018.



10. Constitution of Electricity Supply Code Review Panel Committee

Commission constituted an Electricity Supply Code Review Panel Committee to perform the following functions :-

- To consider views from licensees, consumers and other interested parties about the implementation of the Code.
- To assess compliance by licensees with Conditions of Supply;
- To protect consumer interests and ensure/monitor overall performances of licensees;
- To review the code due to any operational problems faced by Distribution licensees or the consumers in implementation of Code.

The following are the members of the present Electricity Supply Code Review Panel Committee

- Chief Engineer (C&R), Jharkhand Bijli Vitran Nigam Limited (JBVNL)
- Chief (Power Management), Tata Steel Ltd. (TSL)
- G.M (Power Services Div.), Jamshedpur Utility and Services Company Limited (JUSCO)
- Chief Engineer (Comml), Damodar Valley Corporation
- Dy. G.M (T.A-Electrical), Steel Authority of India Limited, Bokaro
- Ranchi, Chief Engineer (T&OM), Jharkhand Urja Sancharan Nigam Limited (JUSNL)
- Chief Engineer (SLDC/ULDC), Jharkhand Urja Sancharan Nigam Limited (JUSNL)
- Sr.DGM (PSD), Heavy Engineering Company (HEC)
- Chief Engineer, South Eastern Railway, Kolkata
- President, Federation Chamber of Commerce & Industries
- General Secretary, Santhal Pargana Small Industries Association
- General Secretary, Dhanbad Flour Mills Association, Deoghar
- Director, Chhotanagpur Rope Works Pvt. Ltd.

So far the meeting of Review Panel Committee has been held twice as under :-

S.N.	Meeting	Date	Venue
1.	I st Meeting	15 th September 2017	Indian Medical Association Hall, Ranchi
2.	II nd Meeting	21 st March 2018	Hotel Capitol Hill, Ranchi



11. Major Decisions and orders passed in the year F.Y 2017-18

a. Damodar Valley Corporation (DVC)

Damodar Valley Corporation (DVC) is a statutory body incorporated under the Damodar Valley Corporation Act, 1948, having multifarious functions. Regarding the electricity, DVC undertakes generation of electricity and is, therefore a generating company within the meaning of Section 2 (28) of the Electricity Act, 2003. With regard to the retail sale and supply of electricity, DVC covers the entire Damodar Valley area which falls in two contiguous States, namely, the State of West Bengal and the State of Jharkhand. Thus, tariff for retail sale and supply of electricity in the Damodar Valley area is governed by the provisions of Section 62 (d) read with Section 86 (1) of the Electricity Act, 2003 and has to be determined by the respective Electricity Regulatory Commissions in the States of West Bengal and Jharkhand.

The Commission notified Order on True-up for FY 2006-07 to FY 2014-15 for Damodar Valley Corporation (DVC) on 19th April 2017.

True-up for FY 2006-07 to FY 2010-11

The following table summarizes the ARR for Jharkhand area as per DVC's submission and the Commission's analysis for the period FY 2006-07 to FY 2010-11.

Summary of ARR (Rs Cr.) for Jharkhand Area for FY 2006-07 to FY 2010-11 as per DVC's Submission and as per the Commission's Analysis

Particulars	DVC's Submission					Commission Analysis				
	FY07	FY08	FY09	FY10	FY11	FY07	FY08	FY09	FY10	FY11
Allocated input cost for Jharkhand Area	2,159.12	2,046.6	2,154.24	2,662.70	2,847.28	2124.86	2014.05	2094.48	2633.01	2836.93
Add: Tariff filing & publication expenses	0.24	0.23	0.27	0.63	0.66	0.24	0.23	0.27	0.63	0.66
Add: Interest on Working Capital	1.97	1.94	2.45	2.56	2.38	2.15	2.76	3.35	3.67	3.38
Total ARR for Jharkhand area	2161.20	2048.69	2156.79	2665.37	2849.76	2127.11	2016.92	2097.94	2636.79	2840.41
Revenue from sale of power in Jharkhand	1923.20	1586.35	1996.14	2092.40	2021.59	2097.76	2256.09	2737.41	2995.05	2878.70



Revenue Gap/(Surplus)	238.00	462.34	160.65	572.96	828.17	29.35	(239.17)	(639.47)	(358.26)	(38.29)
Sales (MU)	6761.63	7394.84	7740.31	8093.99	8549.47	6761.63	7394.84	7740.31	8093.99	8549.47
Average Cost of Supply (Rs/kWh)	3.20	2.77	2.79	3.29	3.33	3.15	2.73	2.71	3.26	3.32

True-up for FY 2011-12 to FY 2014-15

The following table summarizes the ARR for Jharkhand area as per DVC's submission and the Commission's analysis for the period FY 2011-12 to FY 2014-15.

Summary of ARR (Rs Cr) for Jharkhand Area for FY 2011-12 to FY 2014-15 as per DVC's Submission and as per the Commission's Analysis

Particulars	DVC's Submission				Commission Analysis			
	FY12	FY13	FY14	FY15	FY12	FY13	FY14	FY15
Allocated input cost for Jharkhand Area	3532.56	3517.65	4895.21	4435.60	3443.08	3857.20	4813.67	4374.52
Add: Cost of Solar & Non-Solar Power Purchased to meet the RPO in the state of Jharkhand	-	-	-	48.63	-	-	11.48	48.92
Add: Tariff filing & publication expenses	0.34	0.34	0.38	0.58	0.34	0.34	0.38	0.58
Add: IWC for Jharkhand Area	70.87	91.73	106.50	101.42	4.44	5.48	5.65	6.62
Deposits	1.02	2.11	1.27	1.24	1.02	2.11	1.27	1.24
Total ARR for Jharkhand area	3604.80	4107.52	5003.36	4587.48	3448.88	3865.14	4832.45	4431.88
Revenue from sale of power in Jharkhand	2571.89	3607.17	3304.18	4167.61	3412.38	3717.43	3910.08	4489.57
Revenue Gap/(Surplus)	1032.91	500.34	1699.18	419.87	36.50	147.71	922.37	(57.69)
Sales (MU)	8899.12	9096.66	9610.55	9815.15	8899.12	9096.66	9610.55	9815.15
Average Cost of Supply (Rs/kWh)	4.05	4.52	5.21	4.67	3.88	4.25	5.03	4.52



b. Inland Power Limited (IPL)

IPL was originally incorporated on June 22, 1993 as a Private Limited Company and was subsequently converted to a Public Limited Company on April 03, 2008. IPL signed a Memorandum of Understanding (MoU) with Government of Jharkhand to develop a 126 MW (+ 20%) (2x 63 MW) power project in October 2011. Accordingly, IPL is setting up a 2x63 MW thermal power plant based on CFBC technology in two stages in Gola, District Ramgarh, Jharkhand. The commercial operation date of the first unit of 63 MW is May 21, 2014.

As per the provisions of the MOU, the Government of Jharkhand or Distribution Licensees authorized by it will have the first right of claim on purchase up to 25% of power delivered to the system by the proposed power plant. Further, the MoU stipulates that out of the 25% under first right of refusal to the State, the rate of 12% share will be on variable cost. Pursuant to the MoU signed between Government of Jharkhand and IPL, IPL signed a Power Purchase Agreement (PPA) with Jharkhand State Electricity Board (now Jharkhand UrjaVikash Nigam Limited or "JUVNL") on February 23, 2012 for supplying 35 MW of 63 MW from Stage 1 of the Project on long term basis. Subsequently, IPL signed a supplementary PPA with JSEB (now JUVNL) on April 22, 2013 for purchase and sale of entire quantity of power to be generated from Unit 1 of 63 MW inclusive of quantity mentioned in earlier Principal PPA.

The Commission notified Order on Approval of Capital Cost, True-up for FY 2014-15, Annual Performance Review (APR) for FY 2015-16, ARR and Tariff determination for period FY 2016-17 to FY 2020-21 for Inland Power Limited (IPL) on 16th May 2017.

True-up for FY 2014-15

The following table shows the annual fixed charges submitted by the Petitioner for the Plant and approved by the Commission for the Control Period:

Annual Fixed Charges approved by the Commission FY2014-15

Particulars	Unit	Approved in MYT order	Submitted by IPL	Approved in True up
O&M Expenses	Rs. Cr	12.57	16.49	13.07
Depreciation	Rs. Cr	13.20	13.63	13.46
Interest on Loan	Rs. Cr	23.37	31.45	25.89



Return on Equity	Rs. Cr	14.86	12.76	12.36
Cost of Secondary Fuel	Rs. Cr	1.72	2.10	1.63
Interest on Working Capital	Rs. Cr	5.45	2.82*	5.06
Total Fixed Cost	Rs. Cr	71.17	79.25	71.47

Multi Year Tariff for FY 2017-21

The summary of fixed cost approved by the Commission for the MYT period is tabulated below:

Summary of Fixed cost for MYT as approved by the Commission

Particulars	Unit	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
O&M Expenses	Rs. Cr	17.01	18.08	19.22	20.43	21.72
Depreciation	Rs. Cr	15.60	15.60	15.60	15.60	15.60
Interest on Loan	Rs. Cr	24.98	23.08	21.18	19.28	17.37
Return on Equity	%	19.30	19.84	19.84	19.84	19.84
Interest on Working Capital	Rs. Cr	5.99	6.02	6.05	6.07	6.11
Total Fixed Cost	Rs. Cr	82.88	82.62	81.88	81.21	80.64

Inland Power Limited shall recover the tariff from JUVNL in accordance with the provisions of the MoU with Government of Jharkhand and as per the provisions of the PPA with JUVNL.

Tariff for 12% of Total Net Capacity:

The tariff for 12% of the total net capacity shall be the variable cost (subject to fuel price adjustment in accordance with JSERC Generation Tariff Regulations, 2015) approved by the Commission in this order and as noted below:

Summary of Approved Tariff for 12% of the net capacity

Particulars	Units	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Approved Variable cost/ Energy Charge Rate	Rs./kWh	2.09	2.09	2.09	2.09	2.09

Tariff for 88% of Total Net Capacity:

The tariff for 88% of the total net capacity shall be the total tariff i.e. variable cost (subject to fuel price adjustment in accordance with Generation Tariff Regulations, 2015) and fixed charges as approved by the Commission in this order as noted below:



Approved Tariff for 88% of the net capacity

Particulars	Units	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Approved Variable cost/ Energy Charge Rate	Rs./kWh	2.09	2.09	2.09	2.09	2.09
Approved Annual fixed charges	Rs. Cr.	82.88	82.62	81.88	81.21	80.64

True-up for FY 2015-16

The Commission notified Order on Approval of True-up for FY 2015-16 for Inland Power Limited (IPL) on 19th March 2018.

Annual Fixed Charges approved by the Commission FY2015-16

Particulars	Unit	Approved in MYT order	Submitted by IPL	Approved in True up
O&M Expenses	Rs. Cr	16.01	24.96	16.01
Depreciation	Rs. Cr	15.91	15.84	15.60
Interest on Loan	Rs. Cr	26.30	33.28	32.15
Return on Equity	Rs. Cr	17.90	14.48	14.32
Cost of Secondary Fuel	Rs. Cr	2.07	2.07	2.03
Interest on Working Capital	Rs. Cr	6.54	7.52	7.36
Total Fixed Cost	Rs. Cr	84.73	98.15	87.47

c. Jharkhand Bijli Vitran Nigam Ltd. (JBVNL)

Jharkhand Bijli Vitran Vikas Nigam Ltd. (JBVNL) has been incorporated under Indian Companies Act, 1956 pursuant to decision of Government of Jharkhand to reorganize erstwhile JSEB.

Reorganization of the JSEB was done by Government of Jharkhand pursuant to “Part XIII - Reorganization of Board” read with section 131 of the Electricity Act 2003. JBVNL was constituted under the provisions of Government of Jharkhand, General Resolution as notified by transfer scheme vide notification no. 8, dated 6th January 2014, and is duly registered with the Registrar of Companies, Ranchi. JBVNL was incorporated on 23rd October 2013 with the Registrar of Companies,



Jharkhand, Ranchi and obtained Certificate of Commencement of Business on 28th November 2013. JBVNL is a Distribution Licensee under the provisions of the Electricity Act, 2003 (EA, 2003) having license to supply electricity in the State of Jharkhand.

The Commission notified Order on Approval of Business Plan & ARR for Multi Year Tariff for Control Period FY 2016-17 to FY 2020-21 and Distribution and Retail Tariff for FY 2016-17 for Jharkhand Bijli Vitran Nigam Limited (JBVNL) on 21st June 2017.

ARR for the MYT Period FY 2016-17 to FY 2020-21 & Tariff for FY 2016-17

The following table summarize the Aggregate Revenue Requirement (ARR) for MYT period FY 2016-17 to FY 2020-21 as approved by the Commission.

ARR for MYT Control period as approved by the Commission (in Rs Cr)

Particulars	FY17	FY18	FY19	FY21	FY21
O&M Cost	334.53	377.87	454.69	535.87	591.87
Employee cost	218.19	226.30	234.78	243.61	252.84
A&G Expense	50.48	52.68	54.97	57.37	59.86
R&M Cost	65.87	98.89	164.94	234.89	279.17
Power purchase (Inc. PGCIL & RLDC)	4,629.51	5,495.92	6,648.10	6,548.22	6,618.57
Transmission cost JUSNL	141.18	185.50	243.49	282.25	310.77
Interest Cost	58.36	118.46	176.83	202.15	202.62
Interest on WC	0.00	0.00	0.00	0.00	0.00
Interest on Security Deposits	55.71	79.31	108.79	110.09	111.83
Depreciation	93.67	138.29	184.42	212.52	236.32
Return on Equity	66.19	111.69	152.49	175.16	186.99
Provision for bad debts	-	-	-	-	-
Less: Other income	(134.30)	(141.01)	(148.07)	(155.47)	(163.24)
Total ARR required	5,244.85	6,366.03	7,820.74	7,910.80	8,095.74

The Commission has approved an overall 12.24 % hike in energy charges, fixed charges and demand charges in different categories. The Commission has



determined category wise retail tariff for the MYT Control Period, as depicted in the following table:

Summary of Approved Tariff for FY 2016-17

Category	Units for Fixed Charges	Existing Fixed Charges	Approved Fixed Charges	Existing Energy Charge (Rs/kWh)	Approved Energy Charges (Rs/kWh)
DOMESTIC					
DS-I (a), KutirJyoti (metered) (0-50) units	Rs/Conn/Month	15.00	16.00	1.20	1.25
DS-I (a), KutirJyoti (metered) (51-100) units	Rs/Conn/Month	15.00	16.00	1.20	1.25
DS-I (a), KutirJyoti (Unmetered)	Rs/Conn/Month	40.00	60.00	NIL	NIL
DS-I (b), Metered (0-200) units	Rs/Conn/Month	27.00	30.00	1.50	1.60
DS-I (b), Metered (above 201) units	Rs/Conn/Month	27.00	30.00	1.60	1.70
DS-I (b), Other Rural Domestic Connections (Unmetered)	Rs/Conn/Month	110.00	170.00	NIL	NIL
DS-II, <= 4 KW					
0-200 units	Rs/Conn/Month	43.00	50.00	2.60	3.00
201 and above units	Rs/Conn/Month	65.00	80.00	3.10	3.60
DS-III, Above 4 kW	Rs/Conn/Month	110.00	150.00	3.20	4.00
DS HT	Rs/kVA/Month	80.00	110.00	2.80	3.50
NON DOMESTIC					
NDS-I, Metered (<=2kW) (0-100) units	Rs/Conn/Month	32.00	45.00	1.90	2.20
NDS-I, Metered (<=2kW) (Above	Rs/Conn/Month	32.00	45.00	1.90	2.25



Category	Units for Fixed Charges	Existing Fixed Charges	Approved Fixed Charges	Existing Energy Charge (Rs/kWh)	Approved Energy Charges (Rs/kWh)
100) units					
NDS-I unmetered (<=2kW)	Rs/kW/Month	Rs 190 per kW per month or part thereof for connected load up to 1 kW and Rs 70 per kW per month for each additional 1kW or part thereof	Rs 250 per kW per month or part thereof for connected load up to 1 kW and Rs 90 per kW per month for each additional 1kW or part thereof	NIL	NIL
NDS-II	Rs/kW/Month	Rs 190 per kW per Month or part thereof	Rs 225 per kW per Month or part thereof	5.65	6.00
NDS-III (Advertising & Hoardings)	Rs/Conn/Month	165.00	200.00	6.50	6.80
LOW TENSION INDUSTRIAL & MEDIUM POWER SERVICE (LTIS)					
LTIS (Installation Based Tariff)	Rs/HP/Month	140.00	160.00	5.30	5.50
LTIS (Demand Based Tariff)	Rs/kVA/Month	255.00	275.00	5.30	5.50
IRRIGATION & AGRICULTURE					
IAS-I Metered	Rs/HP/Month	NIL	NIL	0.65	0.70
IAS-I Unmetered	Rs/HP/Month	75.00	100.00	NIL	NIL
IAS-II Metered	Rs/HP/Month	NIL	NIL	1.10	1.20
IAS-II Unmetered	Rs/HP/Month	300.00	375.00	NIL	NIL



Category	Units for Fixed Charges	Existing Fixed Charges	Approved Fixed Charges	Existing Energy Charge (Rs/kWh)	Approved Energy Charges (Rs/kWh)
HTS					
HTS-11 KV	Rs/kVA/Month	255.00	300.00	5.85	6.25
HTS-33 KV	Rs/kVA/Month	255.00	300.00	5.85	6.25
HTS-132 KV	Rs/kVA/Month	255.00	300.00	5.85	6.25
HT SPECIAL S					
HTSS-11 KV	Rs/kVA/Month	440.00	490.00	3.50	4.00
HTSS-33 KV	Rs/kVA/Month	440.00	490.00	3.50	4.00
HTSS-132 KV	Rs/kVA/Month	440.00	490.00	3.50	4.00
TRACTION					
RTS	Rs/kVA/Month	235.00	235.00	5.85	6.00
STREET LIGHT SERVICE					
SS-I (Metered)	Rs/Conn/Month	38.00	55.00	4.80	5.25
SS-II (Unmetered)	Rs/Conn/Month	Rs 150 per 100 watt lamp and Rs 32.5 for every additional 50 watt	Rs 250 per 100 watt lamp and Rs 55.00 for every additional 50 watt	NIL	NIL
MES	Rs/kVA/Month	230.00	260.00	4.35	4.60
Temporary Supply	1.5 times applicable fixed charges	1.5 times applicable fixed charges	1.5 times applicable energy charges	1.5 times applicable energy charges	Temporary Supply

d. Ranchi Municipal Solid Waste Private Limited (RMPL)

Ranchi Municipal Corporation (RMC), Government of Jharkhand (GoJ) is the administrative body responsible for the civic and infrastructural assets in the city of Ranchi in Jharkhand. RMPL entered into a Concession Agreement with RMC on 31st October 2015. As per the Concession Agreement, the project is to be executed on Design Build Finance Operate Transfer (DBFOT) basis. RMPL has decided to set up 11.5 MW mass- burn



controlled combustion technology based Waste to Energy (WtE) Power Plant at Jhiri Village in Ranchi city.

The Commission has determined the tariff applicable only in case the project achieves the Commercial Operation Date (CoD) up to 31st March 2020. The approved tariff shall be considered for a period of twenty years from the date of commercial operation of the generating station. The Commission has issued a Tariff order on dated 21st of June 2017.

Approved Tariff for the Waste to Energy Plant of RMPL (For 1st 10 years)

Year of Operation	1	2	3	4	5	6	7	8	9	10
Installed Capacity (MW)	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
Net Generation (MU)	55.66	64.22	64.22	64.22	64.22	64.22	64.22	64.22	64.22	64.22
Cost of Generation (Rs. Lakh)										
O&M Expenses	1035.00	1094.20	1156.79	1222.96	1292.91	1366.87	1445.05	1527.71	1615.09	1707.48
Depreciation	1086.83	1086.83	1086.83	1086.83	1086.83	1086.83	1086.83	1086.83	1086.83	1086.83
Interest on term loan	1537.33	1403.65	1269.97	1136.28	1002.60	868.92	735.24	601.56	467.88	334.20
Interest on working Capital	135.72	135.90	136.26	136.81	137.55	138.51	139.69	141.10	142.75	144.67
Return on Equity	1117.89	1117.89	1117.89	1117.89	1117.89	1117.89	1117.89	1117.89	1117.89	1117.89
Total Fixed Cost	4912.76	4838.47	4767.74	4700.77	4637.79	4579.02	4524.70	4475.09	4430.45	4391.07

Approved Tariff for the Waste to Energy Plant of RMPL (For 2nd 10 years)

Year of Operation	11	12	13	14	15	16	17	18	19	20
Installed Capacity (MW)	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
Net Generation (MU)	64.22	64.22	64.22	64.22	64.22	64.22	64.22	64.22	64.22	64.22
Cost of Generation (Rs. Lakh)										
O&M Expenses	1805.14	1908.40	2017.56	2132.96	2254.97	2383.95	2520.31	2664.48	2816.89	2978.01



Year of Operation	11	12	13	14	15	16	17	18	19	20
Depreciation	1086.83	1086.83	465.79	465.79	465.79	465.79	465.79	465.79	465.79	465.79
Interest on term loan	200.52	66.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	151.74	154.23	144.95	150.98	157.37	164.11	171.25	178.79	186.76	195.19
Return on Equity	1341.46	1341.46	1341.46	1341.46	1341.46	1341.46	1341.46	1341.46	1341.46	1341.46
Total Fixed Cost	4585.70	4557.77	3969.76	4091.20	4219.59	4355.32	4498.81	4650.52	4810.90	4980.45

Based on the above, approved fixed cost, the levellised tariff comes out to be Rs. 7.29/kWh for the plant useful life.

e. Adhunik Power and Natural Resources Limited (APNRL)

Adhunik Power and Natural Resources Limited (APNRL) has set up a 540 MW coal based power plant in Stage-1 (consisting of Unit 1 and Unit 2 of 270 MW each) and is planning to develop an additional 540 MW coal based power plant in Stage-2. Unit 1 of the power plant was synchronized on November 13, 2012 and COD for the same was declared on January 21, 2013. Unit 2 of the power plant was synchronized on March 29, 2013 and COD for the same was declared on May 19, 2013.

Pursuant to the MoU signed between Government of Jharkhand and APNRL, APNRL signed a Power Purchase Agreement (PPA) with Jharkhand State Electricity Board (now Jharkhand UrjaVikas Nigam Limited or "JUVNL") on September 28, 2012 for supplying contracted capacity of 122.85 MW (25% of 491.4 MW, i.e., gross capacity of 2 units of 270 MW each, totaling to 540 MW less normative auxiliary consumption) from Stage-1 of the Project on long term basis. As per the terms of the PPA, 63.882 MW capacity, i.e., 13% of Net Capacity of Stage-1 shall be supplied to JSEB (now JUVNL) at total tariff and the balance 58.968 MW capacity, i.e. 12% of total Net Capacity of Stage-1 shall be supplied at variable cost only.

The Commission notified Order on True-up for FY 2014-15 & FY 2015-16, Business Plan, Aggregate Revenue Requirement (ARR) and Tariff for MYT from FY 2016-17 to FY 2020-21 for Adhunik Power and Natural Resources Limited (APNRL) on 19th February 2018.



True-up for FY 2014-15 & FY 2015-16

The tables below show the annual fixed charges submitted by the Petitioner and approved by the Commission for each unit for the entire capacity of 270 MW.

Summary of Annual Fixed Charges of Unit-1 for 270 MW for FY 2014-15 (Rs. Cr.)

Particular	Approved in APR	APNRL submission FY2014-15	Approved by JSERC
Depreciation	79.59	80.05	81.43
Interest on Loan	142.98	148.39	147.36
Return on Equity (pre-tax)	83.72	68.06	68.90
O&M Expenses (including water charges)	64.91	66.69	64.91
Interest on Working Capital	24.87	25.50	25.34
Cost of Secondary Fuel	7.79	7.92	7.93
Annual Fixed Charges	403.85	396.60	395.85

Summary of Annual Fixed Charges of Unit-1 for 270 MW for FY 2015-16 (Rs. Cr.)

Particular	Approved in APR	APNRL Submission FY 2015-16	Approved by JSERC
Depreciation	79.59	80.87	82.43
Interest on Loan	132.29	129.94	131.99
Return on Equity (pre-tax)	83.72	69.79	70.62
O&M Expenses (including water charges)	68.63	70.34	68.63
Interest on Working Capital	31.59	30.76	30.44
Cost of Secondary Fuel	12.77	7.77	7.77
Annual Fixed Charges	408.59	389.47	391.89

Summary of Annual Fixed Charges of Unit 2 for 270 MW for FY 2014-15 (Rs. Cr.)

Particular	Approved in APR	APNRL Submission FY2014-15	Approved by JSERC
Depreciation	80.66	80.82	82.16
Interest on Loan	147.09	153.16	152.18
Return on Equity (pre-tax)	84.73	68.66	68.77
O&M Expenses (including water charges)	64.91	66.69	64.91
Interest on Working Capital	22.84	22.41	21.90



Particular	Approved in APR	APNRL Submission FY2014-15	Approved by JSERC
Cost of Secondary Fuel	6.26	6.23	6.23
Annual Fixed Charges	406.49	397.97	396.88

Summary of Annual Fixed Charges of Unit 2 for 270 MW for FY 2015-16 (Rs. Cr.)

Particular	Approved in APR	APNRL Submission FY2015-16	Approved by JSERC
Depreciation	80.66	81.67	83.20
Interest on Loan	136.34	143.03	137.99
Return on Equity (pre-tax)	84.73	70.46	71.30
O&M Expenses (including water charges)	68.63	70.34	68.63
Interest on Working Capital	31.74	25.72	25.44
Cost of Secondary Fuel	12.77	5.82	5.82
Annual Fixed Charges	414.87	397.04	392.39

Multi-Year Tariff for FY 2017-21

The tables below show the annual fixed charges for MYT period approved by the Commission for each unit for the entire capacity of 270 MW.

Annual Fixed Charges of Unit 1 for 270 MW approved by the Commission

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Depreciation	82.37	82.37	82.37	82.37	82.37
Interest on Loan	121.65	110.84	100.02	89.21	78.39
Return on Equity (pre -tax)	70.62	70.62	70.62	70.62	70.62
O&M Expenses	72.01	75.56	79.28	83.19	87.28
Water Charges	1.74	1.74	1.74	1.74	1.74
Interest on Working Capital	24.31	24.28	24.27	24.26	24.27
Annual Fixed Charges	372.71	365.41	358.30	351.39	344.68



Annual Fixed Charges of Unit 2 for 270 MW approved by the Commission

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Depreciation	83.15	83.15	83.15	83.15	83.15
Interest on Loan	127.42	116.38	105.34	94.30	83.25
Return on Equity (pre -tax)	69.79	69.79	69.79	69.79	69.79
O&M Expenses	72.01	75.56	79.28	83.19	87.28
Water Charges	1.74	1.74	1.74	1.74	1.74
Interest on Working Capital	24.46	24.43	24.40	24.39	24.40
Annual Fixed Charges	378.57	371.04	363.70	356.55	349.61

f. Tata Power Corporation Limited (TPCL)

Tata Power Company Limited (TPCL) is a company incorporated under the Indian Companies Act, VII of 1913 with its Registered Office at Bombay House, 24, Homi Mody Street, Fort, Mumbai - 400001 and is engaged in the generation, transmission and distribution of electricity in the country. TPCL operates five out of which two units (Unit 2 and Unit 3) of Jojobera Power Plant are the subject matter of tariff determination by JSERC. Both Units have a capacity of 120 MW each. Unit 2 commenced its operations on February 1, 2001 and Unit 3 on February 1, 2002.

The Commission notified Order on True-up for FY 2015-16, Approval of Business Plan and ARR for control period FY 2016-17 to FY 2020-21 for Tata Power Company Limited (TPCL) on 19th February 2018.

True-up for FY 2015-16

Summary of True-up of Annual Fixed Cost Unit-2 for FY 2015-16 (in Rs. Cr.)

Particulars	Unit	Approved in MYT order	Submitted by TPCL	Approved in True up
O&M charges	Rs Cr	31.48	51.87	31.58
Depreciation	Rs Cr	6.34	5.79	5.79
Interest on Loan	Rs Cr	4.19	3.65	3.65
Return on Equity (pre-tax)	Rs Cr	28.31	28.24	28.24
Cost of Secondary Fuel	Rs Cr	5.35	4.66	0.40
Interest on Working Capital	Rs Cr	11.04	15.98	13.78
Annual Fixed Charges	Rs Cr	86.72	110.19	83.44



Summary of True-up of Annual Fixed Cost Unit-3 for FY 2015-16 (in Rs. Cr.)

Particulars	Unit	Approved in MYT order	Submitted by TPCL	Approved in True up
O&M charges	Rs Cr	25.92	46.52	25.54
Depreciation	Rs Cr	7.64	7.41	7.41
Interest on Loan	Rs Cr	3.07	2.97	2.97
Return on Equity (pre-tax)	Rs Cr	26.81	27.06	27.06
Cost of Secondary Fuel	Rs Cr	5.68	4.62	0.67
Interest on Working Capital	Rs Cr	11.52	16.92	12.70
Annual Fixed Charges	Rs Cr	80.64	105.49	76.34

Multi Year Tariff for FY 2017-21

The Annual Revenue Requirement (ARR) & Generation Tariff for unit#2 and unit#3 for the Control Period FY 2016-17 to FY 2020-21 as approved by the Commission.

Annual Revenue requirement for unit-2 (in Rs Cr) as approved by the Commission

Particulars	UoM	FY17	FY18	FY 19	FY 20	FY 21
Gross Generation	MU	852.49	886.58	835.28	890.70	830.97
Auxiliary Consumption	%	10%	10%	10%	10%	10%
Ex-Bus Generation	MU	767.24	797.92	751.76	801.63	747.88
Station Heat Rate	kcal/kWh	2567	2567	2567	2567	2567
Normative Sp LDO Consumption	ml/kWh	0.5	0.5	0.5	0.5	0.5
Fixed Charges						
Depreciation	Rs Cr	6.27	6.95	8.18	8.94	9.10
Interest on Loan	Rs Cr	4.18	4.48	4.89	5.00	4.58
O&M expenses	Rs Cr	46.35	51.00	54.52	59.17	60.53
Return on Equity (Pretax)	Rs Cr	28.80	29.27	29.89	30.41	30.61
Interest on Working Capital	Rs Cr	12.15	12.79	12.54	13.38	12.88
Total Annual Fixed Charges – (1)	Rs Cr	97.74	104.50	110.02	116.90	117.70
Rate of Energy Charges	Rs/kWh	2.578	2.578	2.578	2.578	2.578
Total Energy Charges–(2)	Rs Cr	197.76	205.67	193.77	206.62	192.77
Annual Revenue Requirement – (1) + (2)	Rs Cr	295.50	310.17	303.79	323.53	310.47


Annual Revenue requirement for unit-3 (in Rs Cr) as approved by the Commission

Particulars	UoM	FY 17	FY 18	FY 19	FY 20	FY 21
Gross Generation	MU	860.93	815.52	893.52	832.40	893.52
Auxiliary Consumption	%	10.00%	10.00%	10.00%	10.00%	10.00%
Ex-Bus Generation	MU	774.84	733.97	804.17	749.16	804.17
Station Heat Rate	kcal/kWh	2577	2577	2577	2577	2577
Normative Sp LDO Consumption	ml/kWh	0.5	0.5	0.5	0.5	0.5
Fixed Charges						
Depreciation	Rs Cr	7.76	8.62	9.71	10.40	10.56
Interest on Loan	Rs Cr	3.67	4.26	4.58	4.64	4.27
O&M expenses	Rs Cr	40.29	43.51	48.21	50.74	53.33
Return on Equity (Pretax)	Rs Cr	27.74	28.40	28.97	29.42	29.63
Interest on Working Capital	Rs Cr	11.90	11.68	12.79	12.33	13.11
Total Annual Fixed Charges – (1)	Rs Cr	91.36	96.47	104.24	107.54	110.90
Rate of Energy Charges	Rs/kWh	2.587	2.587	2.587	2.587	2.587
Total Energy Charges – (2)	Rs Cr	200.42	189.84	208.00	193.77	208.00
Annual Revenue Requirement – (1) + (2)	Rs Cr	291.78	286.32	312.24	301.31	318.91

g. Jharkhand Urja Sancharan Nigam Ltd. (JUSNL)

Jharkhand Urja Sancharan Nigam Ltd. (JUSNL) has been incorporated under Indian Companies Act, 1956 pursuant to decision of Government of Jharkhand to reorganize erstwhile JSEB.

Reorganization of the JSEB was done by Government of Jharkhand pursuant to “Part XIII - Reorganization of Board” read with section 131 of the Electricity Act 2003. JUSNL constituted under the provisions of Government of Jharkhand, General Resolution as notified by transfer scheme vide notification no. 8, dated 6th January 2014, and is duly registered with the Registrar of Companies, Ranchi.

JUSNL was incorporated on 23rd October 2013 with the Registrar of Companies, Jharkhand, Ranchi and obtained Certificate of Commencement of Business on 28th November 2013. JUSNL is a Transmission Licensee under the provisions of the Electricity Act, 2003 (EA, 2003) having license to establish or operate transmission lines in the State of Jharkhand and is



engaged in the business of transmission of electricity to its consumers situated over the entire State of Jharkhand.

The Commission notified Order on Approval of Business Plan & ARR for Multi Year Tariff for Control Period FY 2016-17 to FY 2020-21 and Transmission Tariff for FY 2016-17 for Jharkhand UrjaSancharan Nigam Limited (JUSNL) on 24th February 2018.

ARR as approved by the Commission for FY 2016-17 to FY 2020-21 (Rs. Cr.)

Particulars	FY17	FY18	FY19	FY21	FY21
O&M Expenses	72.59	76.84	99.88	121.93	145.33
Depreciation Expenses	54.03	82.16	132.09	182.34	265.98
Interest & Finance Charges	73.35	135.75	94.14	133.87	190.14
Interest on WC	7.78	9.98	11.36	14.48	19.54
Return on Equity Capital	55.37	55.37	55.37	55.37	91.70
Aggregate Revenue Requirement	263.13	360.09	392.85	507.99	712.70
Less: Non-Tariff Income	5.90	6.20	6.51	6.83	7.17
Revenue Gap of previous tariff order	0.00	0.00	0.00	0.00	0.00
Aggregate Revenue Requirement from Transmission	257.22	353.89	386.34	501.16	705.53

The Commission approves transmission tariff of Rs 0.25 per kWh for FY 2016-17, which shall remain applicable till amended or modified or extended by an Order of this Commission.

12. Meetings of – FOR, FOIR, FORENS, SAFIR, International Regulators' Forum, CIGRE etc.

The Chairman/Members*¹ participated in the following meetings:-

- 59th Meeting of FOR at Guwahati on 21st April 2017.
- *7th FORENS meeting at Gangtok from 27th – 30th April 2017
- 23rd Steering Committee Meeting of SAFIR held on 12th May, 2017 at New Delhi, India
- *Interaction of Chairperson of CERC/SERCs with Union minister of state for Power & 18th Annual General Body Meeting of Forum of Regulators (FOR) at New Delhi on 22nd & 23rd July 2017.
- *Meeting on DSM Action plan arranged by JUSCO at Jamshedpur on 03th August 2017.

¹ *Hon'ble Members also participated alongwith Hon'ble Chairperson.



- 4th Meeting of Forum of Regulators sub-group on “Power Quality” at New Delhi on 09th October 2017.
- 62nd Meeting of Forum of Regulators at New Delhi on 15th December 2017.
- Interaction of the Hon’ble Minister of State (I/c) for Power and NRE with Electricity Regulator at New Delhi on 08th January 2018
- Meeting on “World Sustainable Development Summit 2018” at New Delhi on 15th-17th February 2018.
- FORENS Technical workshop on “Roof Top Solar” at Kolkata on 22nd February 2018.
- Joint Meeting of CBIP Executive Committee and General Body meeting of CBIP on 09th of March 2018.

13. Consumer Grievance Redressal Mechanism

As prescribed under Sections 42(5) and 42(6) of the Electricity Act 2003, Consumer Grievance Redressal Forums (CGRF) and constituted by the Electricity Ombudsman (EO) appointed by the Commission, are working effectively in the State. Formation of the CGRFs and the office of the EO enables electricity consumers to seek speedy and economical redressal for their grievances.

13.1 Consumer Grievance Redressal Forum (CGRF) - At present, 9 CGRFs are functioning in the State, out of which 5 have been constituted by Jharkhand Urja Vikas Nigam Ltd. and the remaining by other Distribution Licensees, viz., Tata Steel Limited, Tata Power Company Limited, SAIL-Bokaro and Damodar Valley Corporation. Each CGRF comprises of one Chairperson-cum-Member (Legal) and two members. The Chairperson of the CGRF is an independent Member nominated by the Commission. In accordance with the provision of the JSERC (Guidelines for Establishment of Forum for Redressal of Grievances of the Consumers and Electricity Ombudsman) Regulations, 2011.

13.2 Detail of the CGRFs at present functioning in the State and the area covered by it is shown in the table below:-

SL. No.	Licensee Name	CGRF Name	Area Covered
1.	Jharkhand Bijli Vitran Nigam Ltd.	I. Vidyut Upbhokta Shikayat Niwaran Forum (VUSNF), Ranchi I. Vidyut Upbhokta Shikayat Niwaran Forum (VUSNF), Hazaribagh	Ranchi, Khunti, Simdega, Gumla and Lohardaga Hazaribagh, Girdih, Dhanbad, Bokaro, Chatra, Koderma and Ramgarh



SL. No.	Licensee Name	CGRF Name	Area Covered
		I. Vidyut Upbhokta Shikayat Niwaran Forum (VUSNF), Dumka	Dumka, Jamtara, Deoghar, Godda, Pakur and Sahebganj
		I. Vidyut Upbhokta Shikayat Niwaran Forum (VUSNF), Chaibasa	East Singhbhum, West Singhbhum, Saraikela-Kharswan
		I. Vidyut Upbhokta Shikayat Niwaran Forum (VUSNF), Palamu	Medninagar, Garhwa, Latehaar
2.	Tata Steel	Forum of Redressal of Grievance of the Consumers	Jamshedpur Township
3.	JUSCO	Forum of Redressal of Grievance of the Consumers	Saraikela –Kharswan
4.	Steel Authority of India, Bokaro	Forum of Redressal of Grievance of the Consumers	Bokaro Steel City Township
5.	Damodar Valley Corporation	VidyutUpbhoktaShikayatNiwaran Forum, Maithon	Only DVC Command Area

13.3 Details of the grievances dealt with the by the different CGRFs during the Calendar Year 2016are shown in Table A and B.

TABLE – A
LIST OF GRIEVANCES RECIEVIED BY JUVNL IN 2017-18 (APRIL-MARCH)

S.N.	Name of CGRF (Zone)	Carried Forward from 2017	Complaints Received	Disposed Cases
1	Ranchi	05	04	08
2	Hazaribagh	15	19	18
3	Dumka	02	07	05
4	Medninagar	02	03	01
5	Chaibasa	14	07	10



TABLE-B

LIST OF GRIEVANCES RECEIVED BY OTHER LICENSEES IN 2017-18 (APRIL- MARCH)

S.N.	Name of Licensee	Pending Cases	Complaints Received	Disposed Cases
1	Tata Steel Ltd.	0	01	01
3	JUSCO	0	0	0
4	SAIL – Bokaro	0	0	0
5	DVC	01	0	0

14. Electricity Ombudsman

14.1 The Electricity Ombudsman office is situated in the 4th Floor of Bhagirath Complex, Near Adivasi Hostel, Karamtoli, Ranchi. At present Shri Prem Prakash Pandey, Retd. Principal District & Sessions Judge is Electricity Ombudsman

14.2 Details of Grievances dealt with by Electricity Ombudsman during the year 2017-18

F.Y 2017-18				
S.N.	Electricity Ombudsman	Pending Cases	Complaints Received	Disposed Cases
1.	Ranchi	08	09	16

15. Events & Programmes

- a. Arrival of Hon'ble Chairperson Dr. Arbind Prasad in the office



Hon'ble Member Shri Rabindra Narayan Singh greets new Hon'ble Chairperson Dr.Arbind Prasad



Hon'ble Chairperson Dr.Arbind Prasad interacting with Media person.

b. Independence Day Celebration 2018



Hon'ble Chairperson Dr. Arbind Prasad hoisting the national flag

c. State Advisory Committee Meeting on 15.09.2017



Hon'ble Chairperson Dr. Arbind Prasad during the meeting



d. Public hearing of APNRL on 11th December 2017



e. JUSNL PUBLIC HEARING



f. REPUBLIC DAY CELEBRATION 2018



Hon'ble Chairperson Hoisting the national flag

g. STATE ADVISORY COMMITTEE MEETING 21ST MARCH 2018



Hon'ble Chairperson Dr. Arbind Prasad and Hon'ble Member (Technical) Shri Rabindra Narayan Singh during the meeting



h. ELECTRICITY SUPPLY CODE REVIEW PANEL COMMITTEE MEETING ON 21ST MARCH 2018



16. Functioning of the Commission

The Commission has a very wide mandate under the Act for performance of various functions. The efficiency of the Commission in discharging its responsibilities depends upon the quality and efficiency of the officers with the requisite expertise and experience.

a. At present the following are the contact officers in the Commission

S.N.	Name of Officers	Designation
1	Shri A.K. Mehta	Secretary
2	Shri Rajendra Prasad Nayak	Law Officer, Accounts Officer & Public Information Officer

b. Besides for consumer grievance Redressal mechanism, the Commission has Electricity Ombudsman and Chairman & Members of Consumer Grievance Redressal Forums of all the licensees, the details of which are as under:-

S.N.	Name of Officers	Designation
1.	Shri Prem Prakash Pandey	Electricity Ombudsman
2.	Shri Ghanshyam Kumar Mallik	Chairman, VUSNF Ranchi



S.N.	Name of Officers	Designation
3.	Shri Jayant Prasad	Member (Engineering), VUSNF Ranchi
4.	Shri LambodarKamat	Member (Accounts) VUSNF Ranchi
5.	Shri A.K.Chaturvedi	Chairperson, VUSNF Chaibasa
6.	Shri Ashok Kumar	Member (Engineering), VUSNF Chaibasa
7.	Shri Shiv PujanTiwary	Chairperson, VUSNF Dumka
8.	Shri Chandra Bhushan Singh	Chairperson, VUSNF Hazaribagh
9.	Shri Om Prakash	Member, VUSNF Hazaribagh
10.	Shri R.R.Tripathi	Chairperson, VUSNF Medninagar
11.	Shri Abhay Shankar Mishra	Chairperson, CGRF DVC Maithon Jharkhand
12.	Shri Rajesh Kumar	Member (Engineering), CGRF DVC Maithon Jharkhand
13.	Shri I Nandi	Member (Finance), CGRF DVC Maithon Jharkhand
14.	Shri Jai Prakash Singh	Chairperson, CGRF SAIL Bokaro Jharkhand
15.	N.N.Jha	Member (Engineering), CGRF SAIL Bokaro Jharkhand
16.	Sujoy Kumar	Member (Engineering), CGRF SAIL Bokaro Jharkhand
17.	Shri Mohammed Kasim	Chairperson, CGRF JUSCO
18.	Shri Deepak P. Kamath, Member Technical	Member (Engineering), CGRF JUSCO
19.	Shri A.N. Choudhary, Member Finance	Member (Finance), CGRF JUSCO
20.	Shri Narendra Kumar Shrivastav	Chairperson & Member (Legal), CGRF TATA STEEL
21.	Shri Umesh Prasad, Member (Tech)	Member (Technical), CGRF TATA STEEL
22.	Shri AwanishArun, Member (Finance)	Member (Finance),CGRF TATA STEEL

17. Accounts

JSERC Fund Rules 2009 has been notified by the Government of Jharkhand, Department of Energy on 21.11.2009 which, inter alia, prescribes format for maintaining the Accounts of the Commission. Accordingly, the Commission follows the rules and prepares its accounts in the prescribed format which has been updated till F.Y 2016-17.

Transaction Audit has also been completed by A.G Audit upto F.Y 2015-16.

18. The Annual Report Committee

The Annual Report is prepared , authored and framed by the Committee constituted by the Hon'ble Chairperson headed by Sri A.K. Mehta, Secretary and the following Officers and Staff as Members :-

Name with Designation	
 Shri A.K. Mehta Secretary	Chairman
 Rajendra Prasad Nayak Law Officer, Accounts Officer and Public Information Officer	Member
 Praveen Kumar Computer Operator	Member



Annexure – I

a. Status of the Petitions filed before JSERC

Carried forward from the year 2017	No. of Petitions received during the years FY 2017-18	Total	Disposed of	Pending
34	25	59	25	34

b. Tariff Orders

9 No. of Tariff Orders issued by the Commission during the F.Y 2017-18

S.N.	Case No. & Name of Parties	Subject	Date of Disposed
1	Case(T) No.02 of 2016 & Damodar Valley Corporation (DVC)	Order on True-up for FY 2006-07 to FY 2013-14 and Annual Performance Review for FY 2014-15 for DVC Command Area of Jharkhand	19.04.2017
2.	Case No.06 of 2016 Inland Power Limited (IPL)	Order on Business Plan for MYT Control Period FY 2016-17 to FY 2020-21	16.05.2017
3	11 of 2016 Inland Power Limited (IPL)	Order on Petition for Approval of Capital Cost, True Up of ARR for FY 2014-15 and Annual Performance Review for FY 2015-16 and ARR and Tariff Determination for the period FY 2016-17 to FY 2020-21 for Inland Power Limited (IPL)	16.05.2017
4.	Case No. 12 of 2016 Ranchi Municipal Solid Waste Private Limited (RMPL)	Order on Determination of Levellised Generation Tariff for 11.5 MW Municipal Solid Waste (MSW) Project of Ranchi Municipal Solid Waste Private Limited (RMPL)	21.06.2017
5.	Case No.08 of 2016 Jharkhand Bijli Vitran Nigam Limited (JBVNL)	Order on Business Plan for MYT Control Period FY 2016-17 to 2020-21 and Tariff determination for FY 2016-17.	21.06.2017
6	Case No. 10 of 2016 Jharkhand Bijli Vitran Nigam Limited (JBVNL)	Order on ARR and Tariff Determination for MYT Control Period FY 2016-17 to FY 2020-21	21.06.2017



S.N.	Case No. & Name of Parties	Subject	Date of Disposed
7	Case No.13 of 2016 Adhunik Power and Natural Resources Limited (APNRL)	Review of the Tariff Order dated 01.09.2016 passed by JSERC in Case No.05 of 2015 (T)	09.01.2018
8	Case No. 15 of 2016 Adhunik Power and Natural Resources Limited (APNRL)	Order on True up for FY 2014-15 and FY 2015-16 for supplying the regulated Contracted Capacity to JUVNL/JBVNL from 540 MW Coal based Power Plant	19.02.2018
9	Case No.01 of 2017 Adhunik Power and Natural Resources Limited (APNRL)	Order on Business Plan, ARR and Determination of Tariff for the Control Period starting from FY 2016-2021.	19.02.2018
10.	Case No.05 of 2017 Tata Power Company Limited (TPCL)	Order on MYT Petition for 2 nd MYT Control Period for FY 2016-17 to FY 2020-21 and Truing up of FY 2015-16.	19.02.2018
11	Case No. 16 of 2016 Tata Power Company Limited (TPCL)	Order on approval of Business plan second control period FY 2016-17 to FY 2020-21 for Tata Power Company Limited (TPCL)	19.02.2018
12	Case No.03 of 2017 Jharkhand Urja Sancharan Nigam Ltd	Order on MYT Petition for the second control period for FY 2016-17 to FY 2020-21.	24.02.2018
13	Case No.17 of 2016 Jharkhand Urja Sancharan Nigam Ltd	Order on MYT Business plan for Second Control Period for FY 2016-17 to FY 2020-21	24.02.2018
14	Case No.06 of 2017 Inland Power Ltd. (IPL)	Order on approval of True up of ARR for FY 2015-16 for Inland Power Ltd. (IPL)	19.03.2018

c. Petitions disposed in the year F.Y 2017-18

S.N.	Case No. & Name of Parties	Subject	Date of Disposed
01	13 of 2016 Lily Bala Singh Vrs. Jharkhand Urja Vikas Nigam Limited & Ors.	Order for Case No. 13 of 2016	20.04.2017



S.N.	Case No. & Name of Parties	Subject	Date of Disposed
02	02 of 2017 M/s Jamshedpur Utilities & Services Co. Ltd.	A petition for approval of Demand Side Management (DSM) action plan for the licensee.	08.08.2017
03	01 of 2017 Jharkhand Bijli Vitran Nigam Limited	providing provisional electrical connection to those applicants who do not have necessary documents related to acceptable proof of ownership or occupancy of premises for getting fresh electrical connection as per provisions	08.08.2017
04	09 of 2017 M/s Inland Power Limited (IPL) Versus Jharkhand Bijli Vitran Nigam Limited (JBVNL)	An application for reviewing the Final Order dated 16.05.2017 on True Up for the Financial Year 2014-15 in case No. 06 & 11 of 2016	17.10.2017
05	04 of 2017 M/s Bharadwaj Steel Pvt. Ltd Vrs. Damodar Valley Corporation & Another	An application for a direction upon the licensee to refund the estimated charge levied as supervision/survey charges and service tax from the petitioner for the purpose of grant of power supply	12.12.2017
06	10 of 2017 Clean Solar Power (Jaipur) Private Ltd. Vrs. The State of Jharkhand through Department of Energy, through its Secretary Jharkhand Renewable Energy Development, Through its Director Jharkhand Bijli Vitran Nigam Renew Solar Power Private Ltd Karvy Solar Power Ltd. OPG Power Generation Pvt. Ltd Adani Green Energy Limited Madhav Infra Projects Ltd. Suzlon Energy Limited	An application under section 36(1)(a) and (b) of Electricity Act 2003	27.12.2017



S.N.	Case No. & Name of Parties	Subject	Date of Disposed
07	13 of 2016(T) M/s Adhunik Power & Natural Resources Ltd. (APNRL) Versus Jharkhand Bijli Vitran Nigam Limited (JBVNL) & Ors	Order on Case No.13 of 2016 (Tariff)	09.01.2018
08	Suomotu Case No. 09 of 2016	Suomotu Case No. 09 of 2016	09.01.2018
09	Case No. 12 of 2016 S.P. Tiwary Vrs. JSEB/Jharkhand Bijli Vitran Nigam Limited & Ors	Order on Case No 12 of 2016	09.01.2018
10	05 of 2017 M/s Krishna Plastic Vrs. Jamshedpur Utilities & Services Co. Ltd. &Ors.	An appeal against the order dated 27.01.2016 passed by the Electricity Ombudsman in Appeal no. EOJ/06/2015 and order date 13.07.2015 passed in case no. PBD/CGRF/01/15 by Consumer Grievance Redressal Forum, JUSCO, Seraikela Kharsawan.	11.01.201
11	07 of 2017 Association of DVC HT Consumers of Jharkhand Versus Damodar Valley Corporation (DVC)	Seeking direction to refund the excess charges collected from the Consumers during the period 2006-07 to 2014-15	19.01.2018

d. Order challenged in courts or APTEL

S.N.	Case No.	Name of Parties	Date of Judgements
01	IA No. 710 of 2016 & 708 of 2016 & 709 of 2016 in DFR No. 3024 of 2016	Jharkhand Bijli Vitran Nigam Limited Versus Jharkhand State Electricity Regulatory Commission & Ors	04.07.2017
02	A. No. 48 of 2016 & A. No. 316 of 2016 & IA No. 656 of 2016	Jharkhand Bijli Vitran Nigam Limited Versus Jharkhand State Electricity Regulatory Commission &Ors.	31.05.2017



Annexure – II

Disposed Cases of Jharkhand Electricity Ombudsman

S.N.	Case No.	Date	Parties	
			Appellant	Respondent
01	EOJ/06/2017	27.03.2018	Jharkhand Urja Vikas Nigam Limited	M/s United Steels, a unit of R.V. Metallics Pvt. Ltd.,
02	Execution Petition EOJ/02/2017	30.01.2018	Smt. Sushma Devi	JUVNL &Ors
03	Execution Petition EOJ/01/2017	16.01.2018	Saroj Thakur	JUVNL &Ors.
04	EOJ/08/2017	04.12.2017	Jharkhand Urja Vikas Nigam Limited	M/s Kohinoor Steel Pvt. Ltd.
05	EOJ/07/2017	04.12.2017	M/s Kohinoor Steel Pvt. Ltd.	Jharkhand Urja Vikas Nigam Limited
06	EOJ/05/2017	24.10.2017	Jharkhand State Electricity Board, now known as Jharkhand Urja Vikas Nigam Limited (JUVNL)	M/s Corporate Ispat Alloys Ltd.
07	EOJ/09/2017	17.10.2017	Saroj Thakur	JUVNL &Ors.
08	EOJ/02/2017	07.09.2017	Jharkhand UrjaVikas Nigam Limited	M/s Kalpana Cement
09	EOJ/01/2017	24.08.2017	Jharkhand Urja Vikas Nigam Limited	K.Y.S. Manufacturers & Exporters (P) Ltd.
10	EOJ/08/2016	04.08.2017	Jharkhand State Electricity Board	Lily Bala Singh
11	EOJ/04/2017	21.07.2017	M/s Santosh Ispat	JUVNL &Ors.
12	EOJ/10/2016	19.06.2017	Jharkhand Urja Vikas Nigam Ltd.	M/ s Maa Chinmastika Sponge Iron Pvt. Limited
13	EOJ/11/2016	02.05.2017	Sainik Kalyan Nideshalaya	JUVNL &Ors.
14	EOJ/03/2017	02.05.2017	Mahendra Choudhary	JUVNL &Ors.
15	EOJ/07/2016	25.04.2017	Sunil Dalmia	JUVNL
16	EOJ/09/2016	11.04.2017	Bhaiya Surendranath Shah	JUVNL & Others



Annexure – III

Sl. No.	Name of Generators
1.	Jharkhand Urja Utpadan Nigam Ltd.
2.	Tengughat Vidyut Nigam Ltd.
3.	Tata Power Company Ltd.
4.	Damodar Valley Corporation.
5.	Bokaro Power Supply Company (P) Ltd.
6.	Adhunik Power And Natural Resources Ltd.
7.	Inland Power Ltd.

Sl. No.	Name of Licensee (Including Deemed Licensees)	Area
1	Jharkhand Urja Sancharan Nigam Limited (JUSNL)	State wide transmission licensee
2	Jharkhand Bijli Vitran Nigam Limited (JBVNL)	State wide
3	Tata Steel Ltd. (TSL)	Jamshedpur Township
4	Steel Authority of India Limited (SAIL)	Bokaro Steel City Township
5	Damodar Valley Corporation (DVC)	Deemed Licensee
6	Jamshedpur Utilities Services Company Limited (JUSCO)	Adityapur Township (license granted on 1 st of December 2006 for 25 years)

Annexure – IV

Overview of Jharkhand Power Sector

Details of Overall Installed Capacity within the State

The summary of the installed capacity within the State is represented based on ownership and the installed capacity.

Generating Company	Type	Capacity (MW)
State Owned Generation		
Subarnrekha HPS	State- Hydro	130
TVNL	State- Thermal	420
Total StateOwned Generation		550
IPPs		
IPL	IPP- Thermal	63
ADHUNIK	IPP- Thermal	540
Maithon TPS	IPP- Thermal	1050
TPCL	IPP- Thermal	240
Total IPPs		1893
DVC		
Bokaro- B	DVC- Thermal	210
Bokaro- A	DVC- Thermal	500
Chandrapura- 3	DVC- Thermal	130
Chandrapura- 7&8	DVC- Thermal	500
Koderma-1&2	DVC- Thermal	1000
Panchet	DVC- Hydro	80
Tilaiya	DVC- Hydro	4
Total DVC		2424
Renewables	IPP- Solar	14
CPP*		824.5
Off-Grid Generation*		8
TOTAL		5714

**- Based on data provided by JREDA*



The installed capacity within Jharkhand State as on date is 5714 MW with ~5478 MW contribution from coal fired thermal generating stations (including CPP's).

Details of Overall Generation within the State in FY 2017-18

The details of Actual Plant-wise Generation for FY 2017-18 based on CEA Generation Report is provided below:

Generating Company	Type	FY 2017-18 Generation (MU)
Subarnrekha HPS	State- Hydro	190.38
TVNL	State- Thermal	1933.31
IPL	IPP- Thermal*	364.40
ADHUNIK	IPP- Thermal	2909.92
Maithon TPS	IPP- Thermal	7345.34
TPCL	IPP- Thermal	1618.38
Bokaro- B	DVC- Thermal	573.94
Bokaro- A	DVC- Thermal	2924.25
Chandrapura- 3	DVC- Thermal	4075.82
Chandrapura- 7&8	DVC- Thermal	
Koderma-1&2	DVC- Thermal	5911.30
Panchet	DVC- Hydro	141.94
TOTAL		28008.68

**- As per latest True-up Petition submitted by IPL*

Details of Utilities in the State:

Generation:

JUUNL:

Jharkhand Urja Vikas Nigam Ltd. (JUVNL) has been incorporated under Indian Companies Act, 1956 pursuant to decision of Government of Jharkhand to reorganize erstwhile JSEB. The said reorganization of the JSEB has been done by Government of Jharkhand pursuant to "Part XIII –Reorganization of Board" read with section 131 of the Electricity Act 2003. The Holding company has been incorporated on 16th September 2013 with the Registrar of Companies, Jharkhand, Ranchi and has obtained Certificate of Commencement of Business on 12th November 2013.



Jharkhand Urja Utpadan Nigam Ltd. (JUUNL) has been incorporated on 23rd October 2013 with the Registrar of Companies, Jharkhand, Ranchi and has obtained Certificate of Commencement of Business on 28th November 2013. It is a Company constituted under the provisions of Government of Jharkhand, General Resolution as notified by transfer scheme vide notification no. 8, dated 6th January 2014. The Generation Company -Jharkhand Urja Utpadan Nigam Ltd. is duly registered with the Registrar of Companies, Ranchi on 23rd October 2013.

Prior to unbundling the generation function of JSEB had two plants i.e. Patratu Thermal Power Station (PTPS) of capacity 840 MW and Sikidiri Hydel Power Station (SHPS) 130MW. However, in a revised transfer scheme notified by the Government of Jharkhand (GoJ) dated 20th Nov. 2015, PTPS was directly vested to GoJ post unbundling that is from 6th Jan 2014. Therefore, JUUNL currently owns 130 (2 X 65) MW SHPS power generation plant only.

TVNL:

The Tenughat Vidyut Nigam Limited (TVNL) is a wholly owned Generating Company of Government of Jharkhand and was constituted in 1987 under the Indian Company's Act, 1956. It operates two Units (Units I and II) of Tenughat Thermal Power Station. Each unit has an installed power generation capacity of 210 MW. Unit I commenced its operations in September, 1996 and Unit II in September, 1997. With the creation of State of Jharkhand on November 15, 2000, it became an undertaking of Government of Jharkhand.

TPCL:

TISCO, now TSL, was accorded sanction under section 28(1) of the Indian Electricity Act 1910 for distribution of electricity in the Jamshedpur township area in 1923. Subsequently by Government of Bihar notification dated February 5, 1993 permission was granted for the establishment of Jamshedpur Power Generating Co. Ltd (JAPCOL) as proposed by TISCO in order to set up Units 2 and Unit 3 at Jojobera, Jamshedpur.

The two parties, signed a PPA on September 12, 1997 under which both the parties agreed to set up, in a phased manner, a power plant with a total capacity of up to 500 MW at Jojobera. The PPA contained certain provisions which govern the determination of tariff for power generated at Jojobera power plant and purchased by TSL.

In April 2000, JAPCOL was amalgamated into Tata Power Company Limited (TPCL) as its subsidiary. Currently, TPCL operates five units of a cumulative



capacity of 547.5 MW at the Jojobera Power Plant, out of which two Units (Units 2 and Unit 3 of 120 MW capacity each) have been subject to tariff determination by the Commission. Both Units have a capacity of 120 MW each.

IPL:

Inland Power Limited (IPL) started construction of the project on December 20, 2011 post the signing of the MoU with Government of Jharkhand. The commercial operation of its Stage I of 63 MW was achieved on May 21, 2014.

APNRL:

Adhunik Power and Natural Resources Limited (APNRL) is a company incorporated under the provisions of the Indian Companies Act, 1956. APNRL, in October 2005, had signed a Memorandum of Understanding (MoU) with Government of Jharkhand to develop a 1,000 MW coal based thermal power plant.

Accordingly, APNRL has set up a 540 MW coal based power plant in Stage-1 (consisting of Unit 1 and Unit 2 of 270 MW each) and is planning to develop an additional 540 MW coal based power plant in Stage-2. Unit 1 of the power plant was synchronized on November 13, 2012 and COD for the same was declared on January 21, 2013. Unit 2 of the power plant was synchronized on March 29, 2013 and COD for the same was declared on May 19, 2013.

Transmission:**JUSNL:**

Jharkhand Urja Sancharan Nigam Ltd. (JUSNL) has been incorporated under Indian Companies Act, 1956 pursuant to decision of Government of Jharkhand to reorganize erstwhile JSEB.

Reorganization of the JSEB has been done by Government of Jharkhand pursuant to "Part XIII – Reorganization of Board" read with section 131 of The Electricity Act 2003. JUSNL is a Company constituted under the provisions of Government of Jharkhand, General Resolution as notified by transfer scheme vide notification no. 8, dated 6th January 2014, and is duly registered with the Registrar of Companies, Ranchi. JUSNL was incorporated on 23rd October 2013 with the Registrar of Companies, Jharkhand, Ranchi and obtained Certificate of Commencement of Business on 28th November 2013.

It is a Transmission Licensee under the provisions of the Electricity Act, 2003 having licence to establish or operate transmission lines in the State of Jharkhand.



Grid Substations (No.)	As on March 2018
440/220 kV	
220/132 kV or 220/132/33 kV	6
132/33 kV	33
Total No. of GSS	39

Details of Transmission Infrastructure of JUSNL:

Transformation Capacity (MVA)	As on March 2018
440/220 kV	-
220/132 kV	2000
132/33 kV	3655
Total Transformation Capacity (MVA)	5655

Transmission Lines (Ckt. Km)	As on March 2018
440 (Presently operational at 220 kV)	180
220 kV	1069
132 kV	2209
Total Transmission Lines (Ckt. km)	3458

Distribution:

JBVNL:

Jharkhand Bijli Vitran Nigam Ltd. (JBVNL) has been incorporated under Indian Companies Act, 1956 pursuant to decision of Government of Jharkhand vide its Letter No. 1/Board-01- Urja-26/13 -1745 dated 28th June 2013 regarding unbundled the erstwhile JSEB.

Reorganization of the JSEB has been done by Government of Jharkhand pursuant to "Part XIII – Reorganization of Board" read with section 131 of The Electricity Act 2003. JBVNL is a Company constituted under the provisions of Government of Jharkhand, General Resolution as notified by transfer scheme vide notification no. 8, dated 6th January 2014, and is duly registered with the Registrar of Companies, Ranchi. JBVNL was incorporated on 23rd October 2013 with the Registrar of Companies, Jharkhand, Ranchi and obtained Certificate of Commencement of Business on 28th November 2013. JBVNL is a Distribution Licensee under the provisions of the Electricity Act, 2003 (EA, 2003) having licence to supply electricity in the State of Jharkhand.

The Commission has approved a sale of 9222.77 MU and total consumers of 33,85,216 for FY 2017-18.

The infrastructure assets of JBVNL in FY 2017-18 are as below:



Particulars	Nos.
Power Substation	798

Particulars	Ckt. km
11 kV	52884
33 kV (Incoming)	5420
33 kV (Outgoing)	2265

JUSCO:

Jamshedpur Utilities and Services Company Limited (JUSCO) is a company incorporated, in August 2003, under the provisions of the Companies Act, 1956 and is a wholly owned subsidiary of Tata Steel Limited (TSL). JUSCO has been incorporated primarily to cater to the infrastructure and power distribution services in the city of Jamshedpur. In addition to Power services, the company's services encompasses of water and waste management; public health & horticulture services; and planning, engineering & construction. JUSCO is a Distribution Licensee operating in the Saraikela- Kharsawan district along with Jharkhand BijliVitaran Nigam Limited (JBVNL). This is the first district in India where two utilities have been allowed to build parallel networks for distribution of power.

JUSCO applied for a Distribution Licence on May 5, 2006 for the revenue district of Saraikela-Kharsawan, contiguous to the already service area of JUSCO. The Commission granted a Distribution License on 1stDecember, 2006 for the aforementioned revenue district and JUSCO began its power distribution services in revenue district of Saraikela-Kharsawan in September 2007.

The Commission has approved a sale of 508.73 MU and total consumers of 2991 for FY 2017-18.

DVC:

Damodar Valley Corporation (DVC), is a statutory body incorporated under the Damodar Valley Corporation Act, 1948, having multifarious functions i.e., Generation, Transmission and Distribution. DVC undertakes generation of electricity and is therefore a generating company within the meaning of Section 2 (28) of the Electricity Act, 2003. DVC also undertakes transmission of electricity in the Damodar valley area which falls within the territorial limits of the two States namely, West Bengal and Jharkhand. It, therefore, undertakes inter-state transmission of electricity and operates inter-state transmission system within the meaning of Section 2 (36) of the Electricity Act, 2003. DVC



also undertakes the sale of electricity to West Bengal State Electricity Distribution Company Limited (WBSEDCL) and Jharkhand Bijli Vitaran Nigam Limited (JBVNL) in its capacity generally as a generating company. This is bulk sale of electricity by a generating company to a distribution licensee within the meaning of Section 62 (1) (a) of the Electricity Act, 2003. In addition to the above, DVC undertakes the retail sale and supply of electricity to the consumers in the Damodar Valley area under the provisions of Section 62 (d) read with Section 86 (1) of the Electricity Act, 2003.

DVC, being a statutory body constituted under the DVC Act, 1948, is a Public Sector Undertaking (PSU). As envisaged under Section 79 (1) (a) of the Electricity Act, 2003, the tariff for generation of electricity is to be decided by the Central Electricity Regulatory Commission (CERC). Similarly, with regards to the inter-state transmission, DVC again is regulated by CERC and tariff for composite (inter-state) generation & transmission is to be determined by the CERC in terms of Section 79 (1) (c) and (d) of the Electricity Act, 2003.

In regards to the retail sale and supply of electricity, DVC covers the entire Damodar Valley area which falls in two contiguous States, namely, the State of West Bengal and the State of Jharkhand. Thus, tariff for retail sale and supply of electricity in the Damodar Valley area is governed by the provisions of Section 62 (d) read with Section 86 (1) of the Electricity Act, 2003 i.e. the retail tariff of consumers in the State of Jharkhand is determined by Jharkhand State Electricity Regulatory Commission (JSERC).

The Commission has approved a sale of 10896.84 MU and total consumers of 1786 for FY 2017-18.

TSL:

Tata Steel Limited (TSL), formerly known as Tata Iron and Steel Company Limited (TISCO), is a company incorporated under the provisions of the Companies Act, 1956. It has been distributing electricity in Jamshedpur under the licence granted u/s 14 of the Electricity Act 2003.

TSL has been distributing electricity in Jamshedpur township since 1923 through a sanction/licence granted under section 28(1) of the erstwhile Indian Electricity Act, 1910. Post enactment of the EA, 2003, TSL filed an application for a distribution licence for Jamshedpur township on 24th December, 2003 before Jharkhand State Electricity Regulatory Commission (JSERC) under Section 15 of the Act. Later, on January 12, 2006, JSERC issue licence to TSL for Jamshedpur town w.e.f. 24th March, 2004. The licensee area is covered by river



Subarnarekha in north, tracks of South Eastern Railways in south, Eastern boundaries of Mouza Jojobera and Nildh and in east and river Kharkai in west.

The Commission has approved a sale of 2999.62 MU for FY 2017-18.

SAIL:

Steel Authority of India, a Government of India Undertaking, established a Steel Plant at Bokaro in the erstwhile Bihar, now Jharkhand in 1964. In order to provide electricity to its officers and employees, Bokaro Steel Limited (SAIL-BSL) obtained sanction under Section 28 of Electricity Act 1910 from the erstwhile Government of Bihar in 1964. Since then it has been distributing electricity to the people living in Bokaro. It buys power from DVC, another Government of India Undertaking, under PPA. Power so purchased was distributed for plant operation as well as for distribution in Bokaro Steel City for the people staying in the area of its operation.

When Electricity Act 2003 came in to being, Electricity Act 1910 (under which the sanction was granted) was repealed. Thereafter, SAIL-BSL applied to the JSERC for distribution licence. After following the due process, JSERC granted Distribution Licence to SAIL-BSL and its licensed area of Bokaro Steel City was retained what was sanctioned by the then State Government.

The HT load of entire Bokaro Steel Township is catered from a 132 kV/11 kV Township Substation. This Substation was installed in 1965 and later it was expanded in different phases as per growth of Bokaro steel City Township. Township substation comprises 132 kV switchyard and 11 kV indoor substation. There are 5 nos. 132 kV/11 kV transformers with total power handling capacity of 62.5 MVA. Township substation receives power through 132 kV double circuit Transmission lines. However, to cater the increasing energy demand in the future, SAIL-BSL had planned for augmentation of its existing 132 kV/11 kV Township substation comprising 132 kV switchyard with Hybrid EHV switchgears (outdoor GIS) and 11kV substation, substation building, new transformers and control room comprising relay & control equipment, auxiliaries, cabling, illumination, earthing & lightning protection etc.

The Commission has approved a sale of 677.22 MW and total consumers of 656 for FY 2017-18.



Note – In Case of any discrepancy(s), the relevant original order will prevail.