



SJVN Thermal (P) Ltd.

(A wholly owned subsidiary of SJVN Ltd.- A Mini Ratna &
Schedule 'A' PSU under GoI)
Buxar Thermal Power Project (1320 MW)

CIN:U31908BR2007PTC017646

Email: liaisonpatna@gmail.com

Ref: STPL/BTPP/Envt./19- 1338-1340

Date: Oct. 30, 2019

The Additional Principal Chief Conservator of Forests (C),
Ministry of Environment Forest and Climate Change,
Regional office (Eastern-Central Zone Region),
Bungalow No. A-2, Shyamali Colony,
Ranchi - 834 002 (Jharkhand)

Attn.: Sh. Kanwarjit Singh, IFS

Sub: Environment Clearance of 1320 MW Buxar Thermal Power Project- regarding.

Dear Sir,

With reference to the subject cited matter, it is submitted that SJVN Thermal (P) Limited, a subsidiary of SJVN Limited (A Miniratna Schedule 'A' CPSU) is implementing the 1320 MW Buxar Thermal Power Project (BTPP) in village Chausa, district Buxar, Bihar. The project has been granted Environment clearance by MoEF&CC vide letter no. J-13012/69/2008-IA.I (T) dated 28.02.2017. (Copy enclosed)

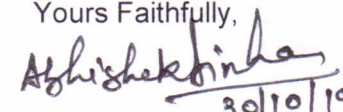
In this regard, in compliance to the letter of environmental clearance, the **half yearly compliance report (for period of Oct. 2019- April 2020)** is enclosed for your kind reference and records please. It is kindly submitted that the Public Investment Board Approval has been accorded on dated-28.02.2019. Further, CCEA has given its approval on 07.03.2019.

It is pertinent to mention here that Long Term Coal Linkage has been granted to the project by Ministry of Coal replacing the earlier allocated Deocha-Pachami Coal block and Letter of Assurance dated-10.12.2018 has been issued by Central Coal Fields limited to that effect. (Copy enclosed)

We further undertake that STPL shall comply with all conditions stipulated in the Environment Clearance letter and will be submitting the six monthly compliance report regularly for the appraisal of your good office.

We hope the above information is line with your requirements.

Thanking You,
Yours Faithfully,

for 
(Ravi Rajan)
Head (Environment)
30/10/19

Encl.(s): As above

Copy: For kind information please:

1. Member Secretary, Bihar State Pollution Control Board, Parivesh Bhawan, Patliputra Industrial Area, Patna, Bihar- 800010.
2. Impact Assessment Division, Monitoring Cell, Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Jor Bagh, New Delhi -110003
3. Director (IA), Member Secretary (EAC- Thermal Power), Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Jor Bagh, New Delhi - 110003



CCL
A Miniratna Company

सेंट्रल कोलफील्ड्स लिमिटेड

(भारत सरकार का एक उपक्रम)

विक्रय एवं विपणन विभाग

दरभंगा हाउस, रांची 834 029

CENTRAL COALFIELDS LIMITED

(Govt. of India Undertaking)

Sales & Marketing Department

DARBHANGA HOUSE, RANCHI

टेलीफोन/Telefax- 0651-2360369 वेबसाइट/Website- www.ccl.gov.in

By Regd. Post and e-mail

No. CCL/HQ/C-4/LOA (Power)/Buxar TPP/2018-19/ 17053-58 Date: 10/12/2018

To,
The Chief Executive Officer,
Buxar TPP, SJVN Thermal Pvt. Ltd.,
2nd & 3rd Floor, Nav Durga Complex Collectorate Road,
Ambedkar Chowk, Buxar – 802103 (Bihar)
email: ceostpl@gmail.com

Subject: Letter of Assurance (LOA).

Dear Sir,

Preamble

In consideration of the request by **Buxar TPP (1320MW) of M/s SJVN Thermal Pvt. Ltd. (a wholly owned subsidiary of SJVN Ltd.)** (hereinafter referred to as “the Assured”) for issuance of Letter of Assurance (hereinafter referred to as “LOA”) requiring **4.976 Million tonnes per annum** (Mtpa) of **Grade G-9 to G-14** coal for its **1320 MW** Power Plant [to be] located at **Village Chausa, Buxar, 802101, Bihar** (hereinafter referred to as “The Plant”), from about [insert the date of commencement of coal supplies], **date not specified by the Assured, Central Coalfields Limited** (hereinafter referred to as “the Assurer”) hereby provisionally assures that it would endeavour to supply coal to the Assured subject to the following terms and conditions:

1. Scope of Assurance

1.1 Quantity, Grade and Source of coal

Subject to the Assured fulfilling its obligations in accordance with Clause 2 to the satisfaction of the Assurer within the period of validity of this LOA and the signing of the Fuel Supply Agreement (FSA) within three (3) months thereafter, the Assurer shall endeavour to supply, as per the normative requirement of the Plant, **4.976 Million tonnes per annum** (Mtpa) of **Grade (s) G-9 to G14** coal to the Assured, which shall be subject to review and assessment by the Assurer of the actual coal requirement of the Assured as well as the availability of coal from the mines of the Assurer and of imported coal. It is expressly

clarified that in the event that the coal supplies available with the Assurer is less than the coal demand, such availability shall be distributed on pro-rata basis and the balance quantity of coal requirement shall be met through imports of coal. Notwithstanding, the ongoing coal supplies by the seller to the existing power plants would be provided due preference over the new power plants to whom such letters of assurance have been issued by the Seller; and the remaining coal including imported coal available with the Seller shall be distributed to such new power plants on pro-rata basis.

1.2 Price of coal

The price of coal assured herein shall be as per the notified price of CIL from time to time. Notwithstanding, in case the quantity of normative requirement, as stated in Clause 1.1 above, necessitates opening of a dedicated mine, then coal shall be priced at the higher of the cost plus reasonable return or such notified price. The quantity of imported coal that may be supplied to the Assured, as mentioned in Clause 1.1, shall be charged at the landed cost plus service charge. Such service charge shall be notified by the Assurer from time to time. The Assured shall be liable to pay all applicable taxes and statutory levies.

1.3 Change in law

In the event of an enactment, promulgation, amendment or repeal of any statute, policy, decree, notice, rule or direction by any government instrumentality that would have an impact on the coal supply terms assured hereof; the Assurer shall be free to amend or repeal this LOA without any liabilities or damages, whatsoever, payable to the Assured.

1.4 Force-Majeure affecting the Assurer

In the event that development on the coal block identified by the Assurer for the purpose of meeting the normative requirement stated in Clause 1.1 is delayed or terminated for reasons including de-allocation of such block by the Government and inordinate delays faced in acquiring land or receiving environmental/forest clearances; Or that imports of coal required for the purpose of meeting the portion of normative requirement stated in Clause 1.1 is reasonably withheld owing to such factors as global shortage or a Force-Majeure event affecting the source(s) of imported coal or logistical bottlenecks faced in transportation and unloading; which are not within the control of and not caused by the negligence or fault of the Assurer; the Assurer shall be free to amend or repeal this LOA without incurring any liability whatsoever, including the liability for payment of damages to the Assured.

2. Fulfillment of Assured's obligations

2.1 Time-bound achievement of milestones

The Assured shall undertake to complete all the activities, as mentioned in Annexure-1 to this LOA, within twenty four (24) months from the date of issue of LOA and each activity within the time-period mentioned against it unless such completion is affected due to any Force Majeure event provided that such Force Majeure event shall not include inability or failure to obtain financing for the Plant or failure to comply with the existing rules and regulations with respect to statutory clearances applicable to the Plant or any such event resulting from the negligence, omission or default by the Assured; and the Assured notifies in writing within seven (7) of occurrence of any such Force Majeure event along with documentary evidence of the same.

2.2 Reporting Requirement

The assured shall submit the status of each activity/milestone including the documentary evidence in relation to such status within the time period as mentioned in Annexure-1.

2.3 Verification by the Assurer

The Assurer reserves the right to independently verify the status of each milestone as mentioned in Annexure 1, and in the event of any significant or reasonable discrepancy found by the Assured in respect of the status reported/documentary evidence submitted by the Assured, the Assurer shall notify the Assured forthwith upon which the Assured shall correct the discrepancy so noted by the Assurer within seven (7) days. Further, in the event that the Assured fails to correct the discrepancy as provided herein the Assured shall be liable to submit additional Commitment Guarantee, as per Clause 3.3.

3. Commitment Guarantee by the Assured

3.1 Amount of Commitment Guarantee

Prior to the date of issue of this LOA, the Assured have provided to the Assurer, a Commitment Guarantee (CG), in cash / bank guarantee, for a sum **of Rs/- 56,72,64,000 (Fifty Six crore Seventy Two lakh sixty Four thousand only)**, equivalent to ten percent (10%) of base price of **Grade G9** Run-of-Mine (ROM) coal of the Assurer prevalent on the date of application for issue of LOA, multiplied by the quantity of coal mentioned in the Preamble. {Note: In no case shall the CG be less than Rs.2,50,00,000/- (Indian Rupees Two hundred and Fifty Million only) per mtpa of coal quantities requested by the Assured or part

thereof.) Such CG shall be non-interest bearing, and in case of it being deposited in the form of bank guarantee it should comply with the format specified by the Assurer and issued by a scheduled bank acceptable to the Assurer.

3.2 Validity of Commitment Guarantee

The Commitment Guarantee (CG) shall remain valid until four (4) months after the expiry of the LOA period of twenty-four (24) months. Thereafter, the CG shall stand converted into the Contract Performance Guarantee (CPG) that would be the condition precedent to signing of the FSA, in which case, validity of the CG shall be extended in accordance with the terms of the FSA. For the avoidance of any doubt, the Assured shall be liable to submit the guarantee for such further amount that may result from the difference between the CPG under FSA and the CG under this LOA.

3.3 Additional Commitment Guarantee

If any activity/milestone is not duly performed or completed by the Assured within the time stipulated against each such activity/milestone, as specified in Annexure 1, then the Assured shall be liable to furnish to the Assurer one tenth (1/10th) of the amount of CG for each such non-performed or incomplete milestone, as additional CG, within fifteen (15) days from the date such activity/milestone is falling due for completion. For the avoidance of any doubt, such additional CG may need to be deposited multiple times subject to partial/non-fulfillment of each activity/milestone at the end of each half-yearly interval, as mentioned in Annexure 1. The aggregate of additional CG(s), however, in no case shall exceed the amount of CG, as specified in Clause 3.1 above. Further, such additional CG(s) shall at all times be deemed to be a part of the CG and all related provisions of this LOA shall be equally applicable for additional CG.

3.4 Encashment of Commitment Guarantee

3.4.1 Cancellation or withdrawal of LOA

In the event that any of the activities/milestones is delayed beyond the period specified against each such activity/milestone in Annexure 1 and the Assured fails to furnish the additional CG to the Assurer in accordance with Clause 3.3 hereof, or the Assured furnishes additional CG to the Assurer in accordance with Clause 3.3 hereof but fails to fulfill all the activities/milestones within the total period of twenty-four (24) months, as specified in Annexure 1, the Assurer shall have the right to cancel or withdraw this LOA after duly

notifying the Assured in writing at least seven (7) days in advance. For the avoidance of doubt, all the milestones, as specified in Annexure 1, shall need to be fully completed and any partial completion with regard to any activity/milestone at the end of validity of the LOA shall entitle the Assurer to cancel or withdraw this LOA. Upon such cancellation/withdrawal of this LOA, the Assurer shall encash the CG including any additional CG submitted by the Assured. It is clarified for removal of doubt that this Clause shall survive the cancellation/withdrawal of this LOA.

3.4.2 Failure to sign the FSA

The Assurer shall have the right to encash the CG in the event of failure by the Assured to sign the FSA within three (3) months from the expiry of validity of the LOA or the satisfactory achievement of all the milestones, as shown in Annexure 1, whichever is earlier. It is also clarified to the Assured that the percentage of annual contracted quantity Fixed with respect to Take or Pay obligations in the FSA may be reviewed by the Seller in light of its coal availability and coal commitments, and amended on year to year basis during the term of the FSA.

3.5 Return of Commitment Guarantee

In case of inability of the Assured to fulfill any activity/milestone, as specified in Annexure 1, due to the occurrence of any Force Majeure event, the time period for fulfillment of such activity/milestone, shall be extended for the period of such Force Majeure event, subject to a maximum extension period of three (3) months continuous or non-continuous in aggregate. In no case including a Force Majeure event affecting multiple activities/milestones shall the validity of LOA be extended by more than three (3) months. Thereafter, this LOA may be cancelled/withdrawn by the Assurer after duly notifying the Assured in writing at least seven (7) days in advance without any liabilities or damages, whatsoever, payable by the Assured to the Assurer; and the Assurer shall return the CG submitted by the Assured.

4. Validity of the LOA

The LOA shall remain valid for a period of twenty-four (24) months from the date of issue of this LOA unless extended for three (3) months in accordance with Clause 3.5 hereof, and shall stand annulled upon expiry of such period.

5. Assignment of the LOA

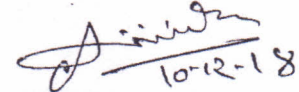
The Assured shall not, without the express prior written consent of the Assurer, assign to any third person the LOA, or any right, benefit, obligation or interest therein or thereunder.

6. End-use of coal

The total quantity of coal assured pursuant to this LOA is for use at the Plant, and the Assured shall not re-sell or trade the coal assured or supplied hereunder to any third party. If at any time in the reasonable opinion of the Assurer, the Assured has entered into an arrangement for such resale or trade of such coal supplies, the Assurer shall cancel/withdraw this LOA without incurring any liability whatsoever, including the liability for payment of damages to the Assured.

Thanking You,

Yours faithfully



General Manager (M&S)

Copy for Kind information to:

1. TS to DT (O)/ TS to D(F) ,CCL, Ranchi
2. GM (M&S), CIL, Kolkata
3. All members of LOA Committee of CCL

This is issued in pursuance to recommendation of 31st CLOA meeting dated 02.05.2018, approved in 123rd CMDs meet held on 08.07.2018 as communicated by CIL vide letter no.CIL/M&S/47252 (New Pol)/460 dated 03.08.2018 under SHAKTI A(i) b(i).

Copy to:

1. Sh. Sanjay Uppal, CGM/Head (BD & MS), SJVN Limited, Business Development & Expediting Office, IRCON Building, Ground Floor, C-4, District Centre, Saket, New Delhi - 110017

General Manager (M&S)

Annexure 1: Milestones to be achieved by the Assured during the validity of LOA – Power Utilities & IPPs

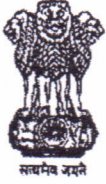
S.No.	Activity/ Milestone	Timeline from the date of LOA	Document to be submitted by the Assured on achievement of milestone			Issuing Authority	Waival
1	Existence of business entity	within 6 months	Certificate of Incorporation/ Commencement of Business Certificate			State Registrar of Companies, Ministry of Company Affairs, Government of India	-
2	Approval of the Investment Decision	within 6 months	Certified copy of the decision of the Board of Directors			Company Secretary under the Company Seal	-
3	Technical Feasibility Studies &	within 6 months	Detailed Project Report (DPR)			Independent Agency/ Expert	Self-attested DPR in case it is prepared in-house
4			Pvt. Land	Govt. Land	State Industrial Development Corporation (SIDC)	-	-
	Land acquisition	within 6 months	Notification under Section 6 or 7 of the Land Acquisition Act, 1894	Collector's orders to SLAO (Special Land Acquisition Officer) to proceed with land acquisition.	Application filed by the Company for requirement of land (if applicable)	State Government/ Collector's office	In case of Pvt. Land being purchased from the owner directly, notifications under Section 4, Section 6 or Section 9 would not be applicable; and in such case Land registration/ Transfer deed/ Land lease agreement would only be applicable
	Land acquisition (At least 70% of the total land, as considered in the DPR, acquired)	within 18 months	Land Registration/ Transfer deed/ Land lease agreement	Land Registration/ Transfer deed/ Land lease agreement	Land Registration/ Transfer deed/ Land lease agreement	State Government/ SIDC	

Annexure 1: Milestones to be achieved by the Assured during the validity of LOA – Power Utilities & IPPs

S.No.	Activity/ Milestone	Timeline from the date of LOA	Document to be submitted by the Assured on achievement of milestone	Issuing Authority	Waival	
	Land acquisition (At least 90% of the total land, as considered in the DPR, acquired)	within 24 months	Land Registration/ Transfer deed/ Land lease agreement	Land Registration/ Transfer deed/ Land lease agreement	Land Registration/ Transfer deed/ Land lease agreement	State Government /SIDC
5	Environment Clearance	within 6 months	Approved Terms of Reference (TOR)			Expert Appraisal Committee (EAC) of MoEF(Central Govt.) for Category 'A' Projects or State Expert Appraisal Committee (EAC) for Category 'B' projects, as applicable
		within 12 months	Final clearance			MOEF (Central Govt.) for Category 'A' projects or State Environment Impact Assessment Authority (SEIAA) - for category 'B' projects, as applicable
6	Forest Clearance, if applicable	within 12 months	Recommendation for Forest clearance			State Government
		within 24 months	Forest Clearance			MoEF (Central Government)
7	Water Allocation	within 6 months	In-principle water allocation			State Water Supply Authority
					In case of utilisation of ground water, relevant permission from relevant department of the State Government.	

Annexure 1: Milestones to be achieved by the Assured during the validity of LOA – Power Utilities & IPPs

S.No.	Activity/ Milestone	Timeline from date LOA	the of	Document to be submitted by the Assured on achievement of milestone	Issuing Authority	Waival
		within months	6	Clearance, if applicable	Central Ground Water Authority (CGWA)	
		within months	12	Sanction Letter for firm water allocation	State Water Supply Authority	In case of utilisation of ground water, relevant permission from relevant department of the State Government.
8	Commitment of equity investment by the Company for the project.	within months	18	Certified copy of the decision of the Board of Directors	Company Secretary under the Company Seal	-
9	Financing of the project/ Financial Closure	within months	24	Final Sanction letters from Bank(s) / Financial Institution(s) Or Loan Agreement	Bank(s)/ Institution(s) Financial	-



J-13012/69/2008-IA.I (T)
Government of India
Ministry of Environment, Forest and Climate Change

Indira Paryavaran Bhawan, Jor Bagh Road,
Aliganj, New Delhi-110003.

Dated: 28.02.2017

To

The Chief Executive Officer
M/s SJVN Thermal (P) Ltd.,
(A wholly owned subsidiary of SJVN Ltd,- A Mini Ratna &
Schedule 'A' PSU under GoI.)
Regd Office: Plot No.192, Circle No.06,
Ward No.02, Talpatra Lane, BudhMarg, Patna- 800001
Tel No. 0612-2219224; Fax No. 0612-2219370; E.mail: liaisonpatna@gmail.com

**Sub: 2x660 MW Coal Based Super Critical Buxar Thermal Power Project (BTPP)
at near Village Chausa, District Buxar, Bihar by M/s SJVN Thermal Pvt.
Ltd.- reg. Environmental Clearance**

Sir,

This has reference to your online application dated 25.10.2016 and the additional documents submitted vide letter dated 30.01.2017 w.r.t the aforesaid project. The Ministry has examined the proposal.

2. It has been noted that Terms of Reference has been issued for the above mentioned project on 07.06.2016 and EAC has agreed to utilise existing baseline collected during April-June, 2008 & March-June, 2015 and to supplement with one month fresh baseline data (non-monsoon).

3. It has been inter-alia noted that Coal based Super Critical Buxar Thermal Power Plant with a capacity of 2x660 MW has been proposed at Village Chausa, Dist. Buxar, Bihar. Land requirement for the proposed project is 1,065 acres. Additional land of 225 acres is required for laying Railway siding and water pipelines. About 95% of land has been acquired. No displacement is involved. No forest land is involved for the project activities including pipelines and associated facilities. There are no protected areas within 10 km radius of project.

4. Coal requirement is 6.7 MTPA (Indian Coal, Ash- 41% and S- 0.6%) which will be sourced from Deocha-Pachami Dewanganj-Harisingha coal block, Birbhum Dist., West Bengal and the allocation from Ministry of Coal has been made vide MoC Letter dated 06.09.2013. It is proposed to use Imported Coal (Ash-12% and S-0.8%) of 3.9 MTPA for initial 4 year and the MoU between M/s MMTCL and M/s SJVNL has been made vide MoU dated 24.02.2016. Imported coal will be received at Haldia Port. Both imported and domestic coal will be transported through rail. Eastern Central Railways provided in-principle approval for railway siding vide letter dated 29.09.2015.

5. The total water requirement is 3,265 m³/hr (32 cusec) and will be met from River (Ganges) through pipeline which is very near to the proposed project site. Necessary water allocation has been granted by Government of Bihar vide MoU dated 29th August, 2016. CWC also conveyed the approval for withdrawal in lean season vide letter dated 24.09.2010. The specific water consumption is 2.5 m³ per MWh as against 4 m³ per MWh.

6. Baseline data for AAQ collected during May-June, 2016 and the values for PM₁₀, PM_{2.5}, SO₂ and NO_x range between 36.32-47.26 µg/m³, 18.35-27.01µg/m³, 11.13-16.68 µg/m³ and 13.22-18.70 µg/m³, respectively. Maximum predicted GLCs for PM, SO₂ and NO₂ are 0.37 µg/m³ at 1.4 km, 0.96 µg/m³ at 1.4 km and 0.99 µg/m³ at 6.8 km, respectively. Stack of 275 m height for effective dispersion of flue gas, FGD, ESPs, Low NO_x burners have been proposed. Bag filters and water sprinklers have been proposed at coal handling areas to control fugitive dust.

Wastewater of about 751 m³/hr will be generated from cooling tower blowdown, DM Plant and clarifiers. It will be reused within the plant after treatment. About 66 m³/hr treated water will be used for greenbelt/horticulture and no treated water will be discharged into surface water bodies. Zero discharge wastewater will be adopted.

The flyash of about 2.7 MTPA will be generated from the use of Indian coal. It is estimated that flyash of 2.30 MTPA and Bottom Ash of 0.40 MTPA will be generated. The Fly ash generated will be utilized in cement production by the nearby Cement Industries. The Bottom ash and un-utilized Fly ash will be stored in the Ash pond having an area of about 282 acres. EOI/MoU has been signed with various users for utilization of fly ash viz., Rural works Dept., & Govt. of Bihar -0.48 MTPA, Road Construction Department -0.24 MTPA, M/s R.K Mishra Enterprises -0.5 MTPA, Lafarge Cement Plant -0.8 MTPA, Dalmiya Cement -0.7 MTPA and Global Infra Ltd -0.5 MTPA.

7. Public Consultation was carried out by Bihar State Pollution Control Board on 04.10.2016 at Buxar Town. Time bound action plan along with financial allocation has been prepared for addressing the issued raised in the Public Hearing. Estimated project cost is Rs. 10,520 Crores and Budget allocated for EMP is Rs.1,311.32 Crores. CSR budget of Rs.61 Crores has been allocated which shall be spent in 10 years.

8. Based on the information, clarifications, documents submitted and presentations made by you before the *Expert Appraisal Committee (Thermal Power)* in its 1st Meeting held on 28th December, 2016, the Ministry hereby accords environmental clearance to the above project under the provisions of EIA Notification dated September 14, 2006 and subsequent amendments therein subject to compliance of the following Specific and General conditions:

A. Specific Conditions:

- (i) Land of 33% of the total project area would be earmarked for greenbelt development. 100 m wide greenbelt with 3 tiers around the plant boundary with plant density of 2,500 trees per hectare with local native species shall be developed.
- (ii) Recommendations of Water Resource Department, Patna vide their letter dated 21.1.2017 shall be implemented for diverting the Buda nalla. Recommendations of IIT Roorkee shall also be implemented in this regard. Re-alignment has been proposed so as not to disturb the natural course of the drainage. Banks of the nalla to be strengthened near outfall locations. Solid waste disposal shall not be disposed in to nallah to maintain flow capacity of the nalla.
- (iii) Site-specific Seismicity Study recommendations by IIT Roorkee shall be implemented in design of all structures and equipment. The design of the structures shall also be in accordance with the provisions of IS:1893 (Part 1):2002 and IS:1893 (Part 4): 2005.
- (iv) Flue Gas Desulphurization (FGD) and Selective Catalytic Reduction (SCR) shall be installed in the proposed Thermal Power Plant.
- (v) Sulphur and ash content in the imported coal shall not exceed 0.8% and 12% respectively. The Sulphur and ash content of domestic coal shall not exceed

- 0.6% and 34% respectively. In case of variation of quality at any point of time, fresh reference shall be made to the Ministry for suitable amendments to the environmental clearance.
- (vi) The PP shall explore feasibility of Air Cooled Condensers based on the guidelines of CEA. As proposed, Capital cost of Rs.1,311.32 Crores shall be earmarked for implementation of Environment Management Plan. CSR budget of Rs.61 Crores has been allocated which shall be spent in 10 years. The CSR budget during operational phase shall be earmarked as per the CSR policy of Gol. Provision for water supply to be made for construction toilets under Swachh Bharat Abhiyan.
 - (vii) MoEF&CC Notification S.O. 3305(E) dated 7.12.2015 shall be implemented with respect to specific water consumption, zero liquid discharge and revised emission standards. The PM, SO₂, NO_x and Hg emissions shall not exceed 30 mg/Nm³, 100 mg/Nm³, 100 mg/Nm³ and 0.03 mg/Nm³ respectively. The specific water consumption shall not exceed 2.5 m³/MWh and zero waste water discharge shall be achieved.
 - (viii) MoEF&CC Notification G.S.R 02(E) dated 2.1.2014 regarding use of raw or blended or beneficiated or washed coal with ash content not exceeding 34% shall be complied with.
 - (ix) MoEF&CC Notifications on flyash utilization S.O. 763(E) dated 14.09.1999, S.O. 979(E) dated 27.08.2003, S.O. 2804(E) dated 3.11.2009, S.O. 254(E) dated 25.01.2016 and subsequent amendments shall be complied with.
 - (x) Separate Environmental Clearance may be obtained for the proposed Township in an area of 95 acres with total built-up area of 1,21,178 sq. m as applicable under EIA Notification 2006. Sewage Treatment Plant (STP) shall be set up in the township for treating wastewater of 900 m³/day.
 - (xi) An estimate of 5.9 million cubic meters (9 million tons) of Soil would be required for leveling the site. Earth material will be sourced from land/borrow pits from the nearby areas within 15 km radius from the site. Necessary permits and approvals shall be obtained from the concerned authorities for excavation of earth material.
 - (xii) As proposed, separate Environmental Cell with Environmental Engineers, Environmental Scientists, Occupational Health Specialist, Horticulture Specialist, and Social Scientist headed by Environment Head shall function and implement environmental management plan and monitoring activities. Company shall implement Environmental Management Systems, ISO 14001:2015 at the proposed project. Sustainability Reporting shall be done as per environment management plan.
 - (xiii) The compliance of EC conditions shall be reviewed on quarterly basis. In this regard, a compliance mechanism shall be set up through Plant Head who is responsible for implementing the conditions stipulated in the Environmental Clearance, non-compliances and violations. Budget to implement various environmental pollution control measures as proposed in the EMP shall be kept in a separate account and shall not be diverted for any other purposes.
 - (xiv) Vision document specifying prospective plan for the site shall be formulated and submitted to the Regional Office of the Ministry within **six months**.
 - (xv) Harnessing solar power within the premises of the plant particularly at available roof tops shall be carried out and status of implementation including actual generation of solar power shall be submitted along with half yearly monitoring report.
 - (xvi) A long term study of radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute and results thereof analyzed every two year and reported along with monitoring reports. Thereafter mechanism for an in-built continuous monitoring for radio activity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.

- (xvii) Online continuous monitoring system for stack emission, ambient air and effluent shall be installed.
- (xviii) High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 30 mg/Nm³ or as would be notified by the Ministry, whichever is lesser. Adequate dust extraction system such as cyclones/bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided along with an environment friendly sludge disposal system.
- (xix) Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.
- (xx) COC of atleast 5.0 shall be adopted.
- (xxi) Monitoring of surface water quantity and quality shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall also be undertaken and results/findings submitted along with half yearly monitoring report.
- (xxii) A well designed rain water harvesting system shall be put in place within six months, which shall comprise of rain water collection from the built up and open area in the plant premises and detailed record kept of the quantity of water harvested every year and its use.
- (xxiii) No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up/operation of the power plant except Buda nalla as proposed for re-alignment without affecting natural drainage.
- (xxiv) Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.
- (xxv) Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Mercury and other heavy metals (As, Hg, Cr, Pb etc.) shall be monitored in the bottom ash. No ash shall be disposed off in low lying area.
- (xxvi) No mine void filling will be undertaken as an option for ash utilization without adequate lining of mine with suitable media such that no leachate shall take place at any point of time. In case, the option of mine void filling is to be adopted, prior detailed study of soil characteristics of the mine area shall be undertaken from an institute of repute and adequate clay lining shall be ascertained by the State Pollution Control Board and implementation done in close co-ordination with the State Pollution Control Board.
- (xxvii) Fugitive emission of fly ash (dry or wet) shall be controlled such that no agricultural or non-agricultural land is affected. Damage to any land shall be mitigated and suitable compensation provided in consultation with the local Panchayat.
- (xxviii) Green Belt consisting of three tiers of plantations of native species all around plant and at least 50 m width shall be raised. Wherever 50 m width is not feasible a 20 m width shall be raised and adequate justification shall be submitted to the Ministry. Tree density shall not be less than 2500 per ha with survival rate not less than 80 %.
- (xxix) Green belt shall also be developed around the Ash Pond over and above the Green Belt around the plant boundary.
- (xxx) The project proponent shall formulate a well laid Corporate Environment Policy and identify and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with the

conditions stipulated in this clearance letter and other applicable environmental laws and regulations.

- (xxxii) CSR schemes identified based on need based assessment shall be implemented in consultation with the village Panchayat and the District Administration starting from the development of project itself. As part of CSR prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken. Company shall provide separate budget for community development activities and income generating programmes.
- (xxxiii) For proper and periodic monitoring of CSR activities, a CSR committee or a Social Audit committee or a suitable credible external agency shall be appointed. CSR activities shall also be evaluated by an independent external agency. This evaluation shall be both concurrent and final.

B) General Conditions:

- (i) The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not get mixed.
- (ii) A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation.
- (iii) Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry.
- (iv) Storage facilities for auxiliary liquid fuel such as LDO/ HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil.
- (v) First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
- (vi) Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 85 dB(A) from source. For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/less noisy areas.
- (vii) Regular monitoring of ambient air ground level concentration of SO₂, NO_x, PM_{2.5} & PM₁₀ and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry. The data shall also be put on the website of the company.
- (viii) Utilization of 100% Fly Ash generated shall be made from 4th year of operation. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.
- (ix) Provision shall be made for the housing of construction labour (as applicable) within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

- (x) The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at the Website of MoEF&CC at <http://envfor.nic.in>.
- (xi) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad / Municipal Corporation, urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
- (xii) The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM (PM_{2.5} & PM₁₀), SO₂, NO_x (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.
- (xiii) The environment statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.
- (xiv) **The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to MoEF&CC, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, MoEF&CC.**
- (xv) The progress of the project shall be submitted to CEA on six monthly basis.
- (xvi) Regional Office of the MoEF&CC will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six monthly basis. **Criteria pollutants levels including NO_x (from stack & ambient air) shall be displayed at the main gate of the power plant.**
- (xvii) Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.
- (xviii) The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.
- (xix) Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry / CPCB/ SPCB who would be monitoring the compliance of environmental status.

C) An as built or as completed report on EMP to be submitted stating the scope/extent of work envisaged in the EIA along with estimated cost vis-à-vis the actual completed works and cost incurred. A certificate/completion certificate accordingly, shall have to be submitted before commissioning of the TPP.

9. The Ministry reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction. The Ministry may also impose additional environmental conditions or modify the existing ones, if necessary.

10. The environmental clearance accorded **shall be valid for a period of 7 years** from the date of issue of this letter to start operations by the power plant.


11. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

12. In case of any deviation or alteration in the project proposed including coal transportation system from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.

13. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.


14. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Yours faithfully,


(Dr. S. Kerketta)
Director

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. The Additional Principal Chief Conservator of Forests (C), Ministry of Environment Forest and Climate Change, Regional Office (Eastern-Central Zone Region), Bungalow No.A-2, Shyamali Colony, Ranchi-834002.
5. The Secretary, Department of Environment, Govt. of Bihar, Patna.
6. The Chairman, Bihar State Pollution Control Board, Parivesh Bhawan, Patliputra Industrial Area, Patna-10.
7. The District Collector, Buxar District, Govt. of Bihar.
8. Guard file/Monitoring file.
9. Website of MoEF&CC.


(Dr. S. Kerketta)
Director



SJVN Thermal (P) Ltd.
*(A wholly owned subsidiary of SJVN Ltd.- A Mini
Ratna & Schedule 'A' PSU under GoI)*

Email: liaisonpatna@gmail.com

Half Yearly Compliance Report for 1320 MW Buxar Thermal Power Project



Index

SN	Item	Page No.
1	Introduction	3
2	Compliance statement	4-10
3	Annexure-I	12

Introduction

SJVN Thermal Pvt. Limited, a wholly owned subsidiary of SJVN Limited is implementing the 1320 MW Buxar Thermal Power Project (BTPP) at District Buxar, Bihar. The Project is based on supercritical technology and has been granted environment clearance by Ministry of Environment, Forests & Climate Change, and Government of India. As prescribed within the environment clearance letter, the compliance report for the period Oct,2019 to April ,2020 is enclosed herewith. It may please be noted that the Public Investment Board (PIB) approval for the Project has been accorded on dated-28.02.2019. CCEA has given its approval on 07.03.2019 and subsequently, the Cabinet Committee on Economic Affairs (CCEA) has accorded investment approval to the project on 07.03.2019.

Compliance Report

SN	Condition in Env't. Clearance	Compliance/ Status
A. Specific conditions		
i.	Land of 33% of the total project area would be earmarked for greenbelt development. 100 m wide greenbelt with 3 tiers around the plant boundary with plant density of 2,500 trees per hectare with local native species shall be developed.	Shall be duly complied during detailed engineering and design phase.
ii.	Recommendations of Water Resource Department, Patna vide their letter dated 21.1.2017 shall be implemented for diverting the Buda nalla. Recommendations of IIT Roorke shall also be implemented in this regard. Re-alignment has been proposed so as not to disturb the natural course of the drainage. Banks of the nalla to be strengthened near outfall locations. Solid waste disposal shall not be disposed in to nallah to maintain flow capacity of the nalla	Shall be duly complied during detailed engineering and design phase.
iii.	Site Specific Seismicity Study recommendations by IIT Roorkee shall be implemented in design of all structures and equipment. The design of the structures shall also be in accordance with the provisions of IS.1893 (Part]):2002 and IS'1893 (Part 4): 2005	Shall be duly complied during detailed engineering and design phase.
iv	Flue Gas Desulphurization (FGD) and Selective Catalytic Reduction (SCR) shall be installed in the proposed Thermal Power Plant.	Shall be duly complied
v	Sulphur and ash content in the imported coal shall not exceed 0.8% and 12% respectively. The Sulphur and ash content of domestic coal shall not exceed 0.6%/ and 34% respectively. In case of variation of quality at any point of time, fresh reference shall be made to the Ministry for suitable amendments to the environmental clearance.	Shall be duly complied. (Long Terms Coal Linkage has been obtained from Central Coal Field Limited vide letter dated-10.12.2018.) (Copy Enclosed)
vi	The PP shall explore feasibility of Air Cooled Condensers based on the guidelines of CEA. As proposed, Capital cost of Rs. 1,311.32 Crores shall be earmarked for implementation of Environment Management Plan. CSR budget of Rs.61 Crores has been allocated which shall be spent in 10 years. The CSR budget during operational phase shall be earmarked as per the CSR policy of Gol. Provision for water supply to be made for construction	Shall be duly complied

	toilets under Swachh Bharat Abhiyan.	
vii	MoEF&CC Notification S.O. 3305(E) dated 7.12.2015 shall be implemented with respect to specific water consumption, zero liquid discharge and revised emission standards. The PM, SO ₂ , NO _x and Hg emissions shall not exceed 30 mg Nm ³ , 100 mg Nm ³ , 100 mg Nm ³ and 0.03 mg Nm ³ respectively. The specific water consumption shall not exceed 2.5 m ³ /MWh and zero wastewater discharge shall be achieved.	Shall be duly complied during detailed engineering and design phase.
viii	MoEF&CC Notification G.S.R 02(E) dated 2.1.2014 regarding use of raw or blended or beneficiated or washed coal with ash content not exceeding 34% shall be complied with	Shall be duly complied
ix	MoEF&CC Notifications on flyash utilization S.O. 763(E) dated 14.09.1999, S.O. 979(E) dated 27.08.2003, S.O~2804(E) dated 3.11.2009, S.O. 254(E) dated 25.01.2016 and subsequent amendments shall be complied with.	Shall be duly complied
x	Separate Environmental Clearance may be obtained for the proposed Township in an area of 95 acres with total built-up area of 1,21,178 sq. m as applicable. under EIA Notification 2006. Sewage Treatment Plant (STP) shall be set up in the township for treating wastewater of 900 m ³ / day.	Shall be duly complied
xi	An estimate of 5.9 million cubic meters (9 million tons) of Soil would be required for leveling the site. Earth material will be sourced from land/ borrow pits from the nearby areas within 15 km radius from the site. Necessary permits and approvals shall be obtained from the concerned authorities for excavation of earth material.	Shall be duly complied
xii	As proposed, separate Environmental Cell with Environmental Engineers, Environmental Scientists, Occupational Health Specialist, Horticulture Specialist, and Social Scientist headed by Environment Head shall function and implement environmental management plan and monitoring activities. Company shall implement Environmental Management Systems, ISO 14001.2015 at the proposed project. Sustainability Reporting shall be done as per environment management plan.	Shall be duly complied
xiii	The compliance of EC conditions shall be reviewed on quarterly basis. In this regard, a compliance mechanism shall be set up through Plant Head who is responsible for implementing the conditions stipulated in the Environmental Clearance, non-compliances and violations. Budget to implement various environmental pollution control measures as proposed in the EMF shall be kept tn a separate account and shall not be diverted for any other purposes.	Shall be duly complied

xiv	Vision document specifying prospective plan for the site shall be formulated and submitted to the Regional Office of the Ministry within six months.	STPL vide letter dated .04.2019 has submitted a project vision document to the Regional Office, MOEF&CC at Ranchi. (Copy enclosed)
xv	Harnessing solar power within the premises of the plant particularly at available roof tops shall be carried out and status of implementation including actual generation of solar power shall be submitted along with half yearly monitoring report.	Shall be duly complied
xvi	A long term study of radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute and results thereof analyzed every two year and reported along with monitoring reports. Thereafter mechanism for an in-built continuous monitoring for radio activity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.	Shall be duly complied
xvii	Online continuous monitoring system for stack emission, ambient air and effluent shall be installed.	Shall be duly complied during detailed engineering and design phase.
xviii	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 30 mg/Nm ³ or as would be notified by the Ministry, whichever is lesser. Adequate dust extraction system such as cyclones/bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided along with an environment friendly sludge disposal system.	Shall be duly complied during detailed engineering and design phase.
xix	Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	Shall be duly complied during detailed engineering and design phase.
xx	CoC of at least 5.0 shall be adopted	Shall be duly complied during detailed engineering and design phase.
xxi	Monitoring of surface water quantity and quality shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall also be undertaken and results/findings submitted along with half yearly monitoring report.	Shall be duly complied
xxii	A well designed rain water harvesting system shall be put in place within six months, which shall comprise of rain water collection from the built up and open area in the plant	Shall be duly complied before commissioning the plant

	premises and detailed record kept of the quantity of water harvested every year and its use	
xxiii	No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up/operation of the power plant except Buda nalla as proposed for re-alignment without affecting natural drainage	Shall be duly complied during detailed engineering and design phase.
xxiv	Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved	Shall be duly complied
xxv	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Mercury and other heavy metals (As, Hg, Cr, Pb etc.) shall be monitored in the bottom ash. No ash shall be disposed of in low lying area	Shall be duly complied
xxvi	No mine void filling will be undertaken as an option for ash utilization without adequate lining of mine with suitable media such that no leachate shall take place at any point of time. In case, the option of mine void filling is to be adopted, prior detailed study of soil characteristics of the mine area shall be undertaken from an institute of repute and adequate clay lining shall be ascertained by the State Pollution Control Board and implementation done in close co-ordination with the State Pollution Control Board.	Shall be duly complied
xxvii	Fugitive emission of fly ash (dry or wet) shall be controlled such that no agricultural or non-agricultural land is affected. Damage to any land shall be mitigated and suitable compensation provided in consultation with the local Panchayat.	Shall be duly complied
xxviii	Green Belt consisting of three tiers of plantations of native species all around plant and at least 50 m width shall be raised. Wherever 50 m width is not feasible a 20 m width shall be raised and adequate justification shall be submitted to the Ministry. Tree density shall not be less than 2500 per ha with survival rate not less than 80 %.	Shall be duly complied
xxix	Green belt shall also be developed around the Ash Pond over and above the Green Belt around the plant boundary	Shall be duly complied
xxx	The project proponent shall formulate a well laid Corporate Environment Policy and identify and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with the conditions stipulated in this clearance letter and other applicable environmental laws and regulations	Shall be duly complied
xxxi	CSR schemes identified based on need based assessment shall be implemented in consultation with the village panchayat and the District Administration starting from the development of project itself. As part of CSR prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken. Company shall provide separate budget for community development activities and income generating	CSR works have been implemented in the project area since 2014, details of which have been provided in the EIA/EMP studies. The budget of Rs. 61 Crores earmarked for

	programmes.	CSR shall be duly spent for CSR activities in the project area in consultation with the district administration.
xxxii	For proper and periodic monitoring of CSR activities, a CSR committee or a Social Audit committee or a suitable credible external agency shall be appointed. CSR activities shall also be evaluated by an independent external agency. This evaluation shall be both concurrent and final	The CSR works for STPL shall be implemented through the SJVN CSR foundation. All projects carried out by the SJVN CSR foundation are audited by a three member's committee: 1. Sh. Rakesh kaushal (Red. IAS, HP Govt.) 2. Dr. R.K Sood (Environment Scientist, HP Govt.) 3. Dr. Ranveer Singh (Red. Professor, HP Govt.)
Part B: General conditions		
i.	The treated effluents conforming to the prescribed standards only shall be re- circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not get mixed.	Shall be duly complied during detailed engineering and design phase.
ii.	A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation	Shall be duly complied during detailed engineering and design phase.
iii.	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry.	Shall be duly complied during detailed engineering and design phase & details will be shared with MoEF&CC Regional Office, Ranchi
iv	Storage facilities for auxiliary liquid fuel such as LDO/HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil	Shall be duly complied
v	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Shall be duly complied
vi	Noise levels emanating from turbines shall be so controlled	Shall be duly complied

	<p>such that the noise in the work zone shall be limited to 85 dB(A) from source. For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/ less noisy areas.</p>	
vii	<p>Regular monitoring of ambient air ground level concentration of SO₂, NO_x, PM_{2.5} & PM₁₀ and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry. The data shall also be put on the website of the company</p>	Shall be duly complied
viii	<p>Utilization of 100% Fly Ash generated shall be made from 4th year of operation. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.</p>	Shall be duly complied
ix	<p>Provision shall be made for the housing of construction labour (as applicable) within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.</p>	Shall be duly complied
x	<p>The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at the Website of MoEF&CC at http://envfor.nic.in.</p>	Advertisement published in Dainik Jagran and Hindustan times on 05/03/2017 and 09/03/2017 respectively.
xi	<p>A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad / Municipal Corporation, urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.</p>	Environment Clearance letter available on company website www.sjvn.nic.in and shared with concerned Panchayat offices. The event of grant of environment clearance was also publicized through advertisement in the newspapers Dainik Jagran and Hindustan on 05/03/2017 and

		09/03/2017 respectively. The advertisements are placed at Annexure- I.
xii	The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM {PM2.5 & PM10}, SO2 ,NOx {ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain	Shall be duly complied
xiii	The environment statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment {Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.	Shall be duly complied and environment statement shall be submitted to MoEF&CC in April every year.
xiv	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to MoEF&CC, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, MoEF&CC.	Shall be duly complied
xv	The progress of the project shall be submitted to CEA on six monthly basis	Shall be duly complied
xvi	Regional Office of the MoEF&CC will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six monthly basis. Criteria pollutants levels including NOx (from stack & ambient air) shall be displayed at the main gate of the power plant.	Complete set of requisite documents shared with MoEF&CC regional office on 20/04/2017, and project updates being shared regularly vide half yearly compliance reports
xvii	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.	Shall be duly complied
xviii	The project authorities shall inform the Regional Office as	Shall be duly complied

	well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.	
xix	Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry / CPCB/ SPCB who would be monitoring the compliance of environmental status	Shall be duly complied

ANNEXURES

मैसर्स एसजेवीएन थर्मल (प्रा.) लि. को पर्यावरणीय मंजूरी

पर्यावरण, वन एवं जलवायु परिवर्तन (एमओईएफ एंड सीसी) मंत्रालय के दिनांक 28 फरवरी, 2017 के पत्र सं. जे. 13012/69/2008-आईए.आई(टी) के तहत बिहार में बक्सर जिले के चौसा गांव में प्रस्तावित "कोयले पर आधारित 2x660 मेगावाट के सुपर क्रिटिकल बक्सर थर्मल पावर परियोजना (बीटीपीपी)" को पर्यावरणीय मंजूरी प्रदान की है।

मंजूरी पत्र की प्रति बिहार राज्य प्रदूषण नियंत्रण बोर्ड के पास उपलब्ध है तथा इसके एमओईएफ एंड सीसी की वेबसाइट <http://envfor.nic.in> तथा [www.http://sjvn.nic.in](http://www.sjvn.nic.in) पर भी देखा जा सकता है।

जायेकर्ता: **मुख्य कार्यकारी अधिकारी
मैसर्स एसजेवीएन थर्मल (प्रा.) लि.**

(भारत सरकार के अधीन एक मिनी रत्न तथा शेड्यूल (ए)

पीएसयू-एसजेवीएन लि. की पूर्व स्वामित्व वाली अधीनस्थ कंपनी)

कार्यालय: नव दुर्गा कॉम्प्लेक्स, द्वितीय तल, अम्बेडकर चौक, कलेक्टर रोड,
बक्सर-802101 दूरभाष: 06183-223105

हिन्दुस्तान न्यूज पेपर दिनांक-9 मार्च 2017 को प्रकाशित
किया गया।

सूचनाध - मुख्य कार्यकारी अधिकारी

सी एफ ओ

प्रमुख (ईएफएम)

NT

मेसर्स एसजेवीएन थर्मल (प्रा.) लि.

को पर्यावरणीय मंजूरी

पर्यावरण, वन एवं जलवायु परिवर्तन (एमओईएफ एंड सीसी) मंत्रालय के दिनांक 28 फरवरी, 2017 के पत्र सं० जे 13012/69/2008-आईए,आई(टी) के तहत बिहार में बक्सर जिले के चौसा गांव में प्रस्तावित "कोयले पर आधारित 2X660 मेगावाट के सुपर क्रिटिकल बक्सर थर्मल पावर परियोजना (बीटीपीपी)" को पर्यावरणीय मंजूरी प्रदान की है।

मंजूरी पत्र की प्रति बिहार राज्य प्रदूषण नियंत्रण बोर्ड के पास उपलब्ध है तथा इसके एमओईएफ एंड सीसी की वेबसाइट <http://envfor.nic.in> तथा [www.http://sjvn.nic.in](http://sjvn.nic.in) पर भी देखा जा सकता है।

जारीकर्ता : मुख्य कार्यकारी अधिकारी

मेसर्स एसजेवीएन थर्मल (प्रा.) लि.

(भारत सरकार के अधीन एक मिनी रत्न तथा शेड्यूल (ए) पीएसयू-एसजेवीएन लि. की पूर्ण स्वामित्व वाली अधीनस्थ कंपनी)

कार्यालय : नव दुर्गा कॉम्प्लेक्स, द्वितीय तल,
अम्बेदकर चौक, कलेक्टर रोड, बक्सर - 802101

दूरभाष : 06183-223105

दैनिक जागरण 5 मार्च 2017 को प्रकाशित किया गया,

सूचना :- मुख्य कार्यकारी अधिकारी
सीएफओ
प्रमुख (सीएडएन)

NR

2017-6/3

Vision of Buxar Thermal Power Project (BTPP):-

1.0 Introduction:-

The installed power generation capacity of India as on 31st March 2019 is 3, 56,100.19 MW and out of this the installed generation capacity in Bihar is 4,566.47 MW including the allocated shares from central generating stations. As per the 18th EPS published by Central Electricity Authority (CEA), the estimated peak load demand in Bihar at the end of 13th 5-year plan (FY 2021-22) is 9,306 MW. The actual peak demand for the financial year 2018-19 in Bihar was 5115 MW and the peak demand met was 5084 MW leaving a peak deficit of 0.6%. It may be noted that the actual power scenarios is less than the projections as per the 18th EPS and also the per capita power consumption in Bihar is lowest at 265 units per annum, against the national average of 1,060 units per annum. The Bihar state government is taking steps to provide access to electricity all households and also agriculture needs in rural areas. To meet up with overall national objective and to enable Bihar access to additional power required to sustain the high growth rate being witnessed, Govt. of Bihar had taken the initiative for developing Thermal Power Projects in the state through Bihar Power Infrastructure Company (BPIC), a joint venture between Bihar State Power Holding Company Limited (BSPHCL) with IL&FS Energy Development Company Limited (IEDCL). BPIC and BSEB had identified a site near village Chausa in District Buxar for the development of 2x660 MW Coal based Thermal Power Project. . SJVN, a schedule 'A' PSU and a joint venture of the Govt. of India and the State Govt. of HP, acquired the project through its subsidiary SJVN Thermal Pvt. Ltd. in 2013.

The proposed 1320 Buxar Thermal Power Project (2x660MW) power project was conceived to meet the energy deficit of Bihar state. As per the power purchase agreement 85% of the power generated at the proposed project will be made available to Bihar state for various uses. Due to the location advantage of the Project in terms of availability of water, power evacuation facilities and coal, the cost of power is expected to be competitive.

The proposed project would cater to the ever increasing demand of electricity in the state of Bihar. It will also increase the availability of electricity in rural areas for agricultural purposes, small scale industries and subsequently helps in improving overall development in agricultural, industrial and infrastructural facilities.

2.0 Long Term Vision for the Project:-

The long term vision of the proposed power project is sustainable power generation maintaining high standards of efficiency and financial strength, over the design life (25 years) and extended life of the project through suitable Renovation and Modernization Programmes from Time to Time and stated hereunder

2.1 Vision for Project Site:-

- To provide uninterrupted and quality power to the Bihar state grid to bridge the demand and supply gap
- Optimal utilization of land by maximizing electrical generation per unit area of the plant. Optimizing specific water consumption requirement for the plant processes to meet the norms for the thermal power projects prescribed by Ministry of Environment Forest and Climate Change (MoEF&CC). Continual improvement in efficiency and PLF through efficient operation and maintenance and Renovation and Modernization Programmes from Time to Time gaining extended life of the project
- Certification of Project with ISO: 9001, ISO 14001, OSHAS-18001, SA-8000 to implement best practices in operation of the plant.

2.2 Vision towards Technology Selection:-

The proposed 1320 MW Buxar Thermal Power Project (2x660 MW) power plant based on super critical technology which is the best available technology for the operation of the proposed project. The main advantages of the technology are:

- High Thermal Efficiency, PLF;
- Lower fuel consumption;
- Reduced ash generation;
- Faster load-changes;
- Faster start up time;
- High part load efficiency and higher adaptability for sliding pressure operation

2.3 Vision Towards the Environmental Protection & Pollution Control:-

To achieve better performance of the-1320 MW BTPP, the following pollution control and abatement measures are envisaged, in line with the environment clearance granted to the project by MoEF&CC:

- Recycle and Reuse of wastewater
- Adopting the good environmental management practices as per the applicable guidelines and achieving 100% compliance with regulations,
- 275 m multi-flue stack with ESP of more than 99.99 % efficiency which will be provided to control suspended particulate matter to less than 30 mg/Nm³, Providing quality fly ash (low carbon content and desired grain size). To enhance the fly ash utilization opportunities in the region, 20% of the fly ash will be provided to local brick manufacturers with no cost to encourage alternative brick manufacturing practices to conserve the natural clay soil that is being widely used by the local brick manufacturers.
- Utilization of technologies such as Flue Gas Desulphurization (FGD) and SCR to minimize ambient air pollution owing to the operation of the plant.
- Dry fly ash handling system and achieving 100% fly ash utilization as per the MOEF&CC fly ash utilization notification
- Greenbelt will be developed in and around the plant site. Plantation of trees will also be encouraged in the nearby villages. Greenbelt will be developed with locally available plant species.
- Surveillance of all important environmental parameters on a continuous basis and application of corrective measures Monitoring of all important environmental parameters on a continuous basis and application of corrective measures in consultation with central and state government authorities.
- Implementation of rooftop solar power plant and rain water harvesting system at site to optimize the judicious use of resources.

2.4 Vision towards CSR:-

- To become an integral part of the local communities and encouraging social, economic and cultural aspects in the region through a sustained and need based Corporate Social Responsibility programs
- CSR activities will be taken up to fulfill the basic requirements of the people in the area. The basic requirements of the community needs will be strengthened by extending health care; educational facilities will be improved.

- To participate in various CSR activities like infrastructure development, education, medical facilities, self-employment, community development and awareness programmes, vocational training in and around the project site.
- The proposed power plant will provide direct and indirect employment to many people based on their qualification, skill sets and experience