



## Jaigad PowerTransco Limited



A Joint Venture of JSW Energy Ltd. & Maharashtra State Electricity Transmission Co. Ltd.

Regd. Office : JSW Centre, Bandra Kurla Complex, Bandra(East) Mumbai – 400 051. Phone : 022-42861000 Fax :022-42863000

CIN: U40102MH2008PLC181433

Ref: JPTL/ITM/20-21/001

Date: 30/09/2020

To,  
**The Secretary,**  
Maharashtra Electricity Regulatory Commission,  
World Trade Centre, Centre No.1,  
13<sup>th</sup> Floor, Cuffe Parade,  
Mumbai – 400 005

**Sub:** Intimation regarding collapse of Tower no. 150 of Jaigad – Karad Transmission line

Respected Sir,

This is to inform you that the Tower no. 150 of the Jaigad – Karad transmission line collapsed on the evening of 27<sup>th</sup> September 2020. The tower was positioned on the hilly region and there was a landslide due to the heavy rains. Heavy boulders came down damaging the lower members of the tower resulting in the collapse.

We are trying our best to erect the transmission tower for the continuity of the transmission lines at the earliest. It is our humble request to consider the tower replacement cost under the non-DPR scheme during the true-up of the ARR for FY 2020-21.

Thanking You,

Yours faithfully,

For Jaigad Power Transco Limited.

  
**Yatish Kumar Chhabra**  
Managing Director



Part of O.P.Jindal Group



At. Nandiwade, Post. Jaigad,  
Tal. Dist. Ratnagiri - 415 514  
Maharashtra, India.

Website: [www.jsw.in](http://www.jsw.in)  
CIN: L74999MH1994PLC077041

Ref: JP TL/ETM/LOI-02  
Date: 10.10.2020

### LETTER OF INTENT

**M/s Greenmint Power Pvt. Limited**  
Office No.2, Navbhavana Premises,  
422, S.V. Savarkar Road, Prabhadevi,  
Mumbai-400025, Maharashtra (India).

**Attn: Mr. Mohan Bhingole**

**Subject: Restoration works of collapsed tower at Location no 150 of 400kV JTPL Jaigad-Karad Line**

Ref: Your offer and various discussions on the subject proposal

With reference to above, we are pleased to issue this letter of Intent (LOI) to you for Restoration works of collapsed tower at Location no 150 of 400kV JTPL Jaigad-Karad Line at Chiplun as per the following major terms and conditions.

**1. Contract Effective Date :**

Effective Date of Contract (EDC)-The Effective Date of Contract shall be the date of signing of Contract or date of Letter of Intent or contract (LOI), whichever is earlier.

**2. Price Basis:**

For JP TL, Chiplun site. The Price shall remain firm and fixed throughout the period of the contract

**3. Scope of Work:**

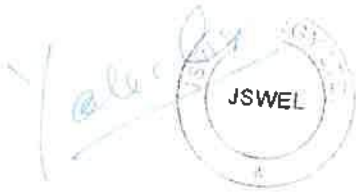
The scope of this LOI includes Restoration works of collapsed tower at Location no 150 of 400kV JTPL Jaigad-Karad Line at Chiplun as per the scope, bill of quantity (BOQ) attached in **Annexure - I** and **Technical Specifications (SOW)** duly signed and agreed.

**2. Total Purchase Price:**

The Total Purchase Price for the above scope of work shall be Rs. 66,71,956.00 (Rupees Sixty-Six Lakhs Seventy-One Thousand Nine Hundred Fifty-Six Only) on landed cost basis. The Total Purchase Price is inclusive of taxes such as Goods & Service Tax @ 18%. Income tax (TDS) as applicable shall be deducted from the bills submitted by you. The cost of lodging, boarding and travelling shall be to your account. The total purchase price shall remain firm and not subject to any cost escalation including fluctuations in the exchange rate between any currencies. The detailed price breakup is as attached in **Annexure- I**.

**3. Terms of Payment:**

Mobilization payment within 7 days from mobilization/RA bill will be raised on a weekly basis, at the end of every week; and should be cleared in 3 days/5% amount of contract value should be kept as retention and should be cleared immediately after completion of defect liability period.



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JSW Centre, Bandra Kurla Complex,  
Bandra (East), Mumbai 400051  
Phone : 022-4286 1000  
Fax : 022-4286 3000

*Received  
Thanks  
For give  
Mohan Bhingole  
GMPPL*



## Energy Limited

At. Nandiwade, Post. Jaigad,  
Tal. Dist. Ratnagiri - 415 614  
Maharashtra, India.

Website: [www.jswe.com](http://www.jswe.com)  
CIN: L74999MH1994PLC077041

#### 4. Effective Date of LOI:

The LOI shall be Effective from 10.10.2020

#### 5. Completion Schedule:

Within 45 days as per receipt of mobilization payment

#### 6. Liquidated Damages for Completion:

Max 5% of the contract value.

#### 7. Warranty and Defect Liability :

Since tower material and stub strengthening, design is being provided by JPTL/JSW. Contractor will be executing the work as per JPTL design; hence, defect liability period shall be 6 months. Also defect liability to be applied for workmen ship only.

#### 8. Limit of Liability:

Liability shall be limited to the BOQ and scope of work as agreed during signing of contract.

#### 9. Risk Purchase:

Maximum 100% of total purchase price. Notwithstanding anything contained in this Contract, if at any stage, we are of the opinion that delay is taking place or likely to take place in the execution of Contract, We shall have the rights to procure required materials from alternate source(s) entirely at your risk, cost & expenses including incidental expenses. This shall be over & above liquidated damages towards delay in completion.

#### 10. Free issue of Material:

As per BOQ / Tender document (SOW)

#### 11. Site Mobilization:

Since time is a essence for this project exclusive resources shall be mobilized by you as agreed at site for the scope of work under this contract on priority basis as per EIC instructions.

#### 12. Insurance Coverage:

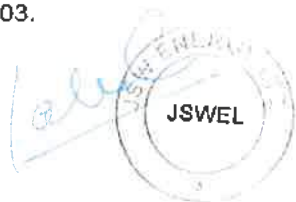
Contractor shall take all necessary transit insurance & insurance with respect to the works, contractor's personnel, third party insurance etc, Insurance coverage for staff/ workmen ( workman commensuration) in Contractor's scope

#### 13. Lodging, Boarding, Travelling:

In Vendor scope

#### 14. Safety Compliance:

1. The contractor has to follow all safety rules & regulations as per JSW standards.
2. The Contractor shall ensure the safety of all the workmen, materials and equipment either belonging to him or to others working at site. All safety rules and codes applied by the Owner at site shall be observed by the Contractor without exception. The Contractor shall be responsible for the safety of the equipment/material and Work to be performed by him.
3. The Contractor shall ensure compliance of all applicable Rules, Regulations etc. as framed under the Electricity Act, 2003.



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**15. Force Majeure:**

A) A Force Majeure means an event or circumstance or combination of events and circumstances beyond the reasonable control of the Party that wholly or partly prevents or unavoidably delays an affected Party in the performance of its obligations under this Contract, which amongst other, include Act of God, Natural Calamity, war, financial disorder, economic slowdown etc.

B) If either Party is prevented from performing any of its obligations under this Contract by such cases of Force Majeure, it shall give written notice to the other Party within 14 (fourteen) days of such occurrence to the events, describing the event and its effects supported by authentic evidences that are verifiable. The affected Party shall, having given notice, be wholly or partially excused performance of such obligation for so long as such Force Majeure prevents it from performing them. No Party shall have any claim/ compensation for the loss incurred due to the force majeure conditions.

C) The affected Party shall use all reasonable efforts to minimize any delay in its performance of the Contract as a result of Force Majeure Events.

D) The Party unable to perform this Contract due to the effect of Force Majeure Events occurrence may, after consultation with the other Party, extend the duration of this Contract by a period commensurate to the time actually lost due to the Force Majeure occurrence. The other Party shall not claim compensation for the loss thus incurred.

E) In case of an extension in the performance of this Contract due to the effect of the Force Majeure occurrence, both Parties shall have friendly consultation on the performance of this Contract or termination of the Contract as provided in this Contract.

F) Notwithstanding the foregoing, Force Majeure shall not apply to any delay, default or failure (direct or indirect) in procuring the components and /or the materials for the manufacture of the Equipment by the Supplier; and/or any delay, default or failure (direct or indirect) by the Supplier in any agreement entered into by it with any party including sub-contractor.

**16. Rest of the Terms :**

As per the tender document ( SOW & BOQ) and BID terms.

**17. Arbitration & Applicable Law:**

Any dispute arising out of or in connection with this contract, including any question regarding its existence, validity or termination, shall be referred to and finally resolved by arbitration in accordance with the Arbitration Rules of the Mumbai Centre for International Arbitration ("MCIA Rules"), which rules are deemed to be incorporated by reference in this clause.

Kindly return the duplicate copy of this LOI duly signed in token of your acceptance.

Thanking you,

Yours faithfully

**For JSW Energy Ltd / Jaigad Powertrapse Limited**

Authorized Signatory



Acknowledged and Accepted

**For Greenmint Power(P) Ltd.**

Authorized Signatory

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**Annexure- I**  
**Price Break Up**

Sr No	Activity	UOM	Estimated Quantity	Unit Rate	Total
1	<b>Mobilisation &amp; Demobilisation of T&amp;P, labours to site to attend breakdown (Each gang shall be comprise of 50 skilled/unskilled manpower)</b>	Per gang	4	1,50,000	6,00,000
3	<b>Dismantling works</b>				
a	Dismantling of collapsed tower by using of gas cutter & ratchet/ spanner set wherever required.	MT	70	12,000	8,40,000
b	Dismantling of conductor, hardwares & other associated accessories in all respect	Route KM	0.509	7,00,000	3,56,300
c	Dismantling of earthwire, hardwares & other associated accessories in all respect	Route KM	0.509	1,00,000	50,900
d	Breaking of existing tower concrete foundation, if required	Meter	8	30,000	2,40,000
e	Providing Temp.stays at location of tower collapse / Removal of stays after completion of work wherever necessary	Per stay	24	10,000	2,40,000
5	<b>Civil BOQ for strengthening of foundation</b>				
a	<b>Excavtion in Dry Fissured Rock &amp; Backfilling with Normal Soil. (Leg A, B, D) - (2x2x1.5)</b>	CUM	18	10,000	1,80,000
b	<b>Excavtion in Hard Rock &amp; Backfilling with Normal Soil. (Leg-C)- (2x2x1.5)</b>	CUM	6	30,000	1,80,000
c	<b>Stub strengthening by jointing new stub including stub setting to maintain original tower slope by applying zinc reach cold welding coating, painting of stub etc.</b>	Per leg	4	1,00,000	4,00,000
d	<b>Supply and placement of Concreting with all associated works - M50- (1.25x1.25x1.5) for 4 legs</b>	CUM	10	30,000	3,00,000
e	<b>Supply and placement of Reinforcement Steel</b>	MT	0.5	20,000	10,000

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**JSW Energy Limited**

A1, Nandiwade, Post. Jaigad,  
Tal. Dist. Ratnagiri - 415 614  
Maharashtra, India.

Website: [www.jswel.com](http://www.jswel.com)  
CIN: L74999MH1994PLC077041

Sr No	Activity	UOM	Estimated Quantity	Unit Rate	Total
6	Tower Erection and fixing of all tower accessories, Punching, Tack Welding, Painting, Cross-arm Strengthening e.t.c including supply of labours and T&P.	MT	78	16,000	12,48,000
7	Fabrication of tower material for matching any shortfall tower members, cleats, plates inclusive of labour and T&P complete	Nos	500	300	1,50,000
8	Type of Earthing including supply of material, labour and T&P, headlodging if any complete			1,00,000	1,00,000
a	Pipe type Earthing	Set	2	25,000	50,000
b	Counterpoise Earthing	Set	2	25,000	50,000
9	Tension Stringing of D/C with quad ACSR MOOSE Conductor along with insulator hoisting and hardware & accessories installation, jumpering and sagging complete	Route KM	0.509	9,00,000	4,58,100
10	Stringing of two No. of 7/3.66 GI earth wire along with fixing of suspension & tension clamps & accessories installation complete	Route KM	0.509	1,00,000	50,900
12	Watch & ward of construction material at site.	LS	1	1,50,000	1,50,000
	<b>Total Basic value</b>				<b>56,54,200</b>
	<b>GST @ 18%</b>				<b>10,17,756</b>
	<b>Total value</b>				<b>66,71,956</b>



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### **Technical Specifications (SOW)**

#### **Detailed scope of work for emergency restoration works of collapsed tower at Location No. 150 of 400kV D/C Quad moose Jaigad-Karad transmission line**

The 400-KV Jaigad-Karad D/C Quad. Moose transmission line is part of JPTL transmission system. On the evening of 27<sup>th</sup> sept, 2020, the 400kv Jaigad-Karad transmission tower at Loc. 150 collapsed due to a landslide triggered by continuous rains in Sahyadri hills of Koyana Region. The incident can hamper the power evacuation from JSW Jaigad Thermal Power Plant and hence, the restoration work needs to be taken on war foot basis.

The detailed scope of the work is as per the requirements given as below:

1. Handling, loading, transportation, unloading including head loading, if required, of JPTL spare tower material & all accessories including conductor, earth wire, line hardware fittings, insulators etc from Jaigad store to working site. (Repair / Rebuilding of Kuccha Road upto Mountain top shall be in scope of JPTL. Vendor may consider two tractors in cascade to shift the material upto spot)
2. Transit insurance of all transported material to/fro site to JPTL store at Jaigad.
3. Providing Temporary stays at location 151 & 149
4. De-stringing of conductor & earth wire.
5. Retrieval of good-conditioned tower member (specially cross arm strengthening, additional cross arm strengthening as per list provided by JPTL)
6. Dismantling of balanced tower materials of collapsed tower (Loc. No.150) with the help of gas cutting or any other means and clearing the site of the tower materials.
7. In case of **stub strengthening**:
  - a. Vendor to submit the procedure and drawing for repair / rebuilding of stubs as approved by MSETCL/PGCIL for DD+25.
  - b. Excavation / breaking of existing foundation around the tower leg. Breaking the cement concrete of chimney upto the affected, damaged, bended portion of stub as per approved drawing. Cleaning and surface preparation of tower stubs.
  - c. Drilling of identical sized G I angles for inner side & outer side sections
  - d. Painting the pieces / tower member's upto 3 mtrs. Section and stub on either side with epoxy polyamine amide base resin.



- e. Drilling the angle pieces to the stub. The old stub and new stub pieces should be bolted. The drill should be pieced & lengthwise at a distance of suitable gap of the stub and the angle piece should be filled with high & low viscous epoxy grout to avoid voids in gaps. After bolting, the pieces should additionally be welded to the original stub. Zinc-rich Cold welding compound should be applied wherever welding is done.
  - f. Application of one coat of epoxy resin as a primer. Application of EPI resin base coat on the whole surface (around the stub) upto length of 1.5mtr. Wrapping EPI plast strengthening material round the joint. Impregnating EPI wetting resin in joint if any filling by epoxy adhesive
  - g. Concreting of in the M50 grade concrete of existing size including raising of chimney height of the stub including muffing etc. in all respect. All T & P, manpower material etc. shall be arranged by the contractor. Work is to be guaranteed for the period of 1 years.
- 8. If stub strengthening not feasible due to site condition, we may have to go for **new tower foundation**- Excavation, stub-setting, foundation, concreting, back-filling etc. complete work of foundation including supply of construction material like cement, steel & aggregates, dewatering, shoring & shuttering, cutting of stubs and form boxes etc.
  - 9. On site fabrication of tower material for matching any shortfall in tower members, cleats, plates by applying zinc coating inclusive of labor and T&P complete
  - 10. Supply of Fabricated, Galvanizing of tower members, G I Nut bolts with Plain & spring washers complete in all respect as per JPTL approved design & drawings
  - 11. Tower Erection of Loc No. 150 with extension with fixing of all tower accessories, tightening, punching, tack welding Painting, Cross-arm Strengthening etc.
  - 12. Placing of suitable type of tower earthing including supply of material, labour and T&P,
  - 13. Restranging of conductor & earth wire along with all accessories/ hardware fittings between span 149 to 151
  - 14. Removal of Temporary stays at location 149 & 151 and site cleaning.
  - 15. Transportation of damaged tower/conductor, earthwire and other material from Tower spot to JPTL store at Jaigad.
  - 16. Other items not specifically mentioned in above scope and are required for the restoration of the tower, unless specifically excluded in the scope.



**Exclusions :**

1. Rebuilding of the existing road, suitable for tractor movement.
2. Clearing of debris from the tower location.
3. Surface treatment / benching of the mountain face to prevent further landslides.

**Date of completion:**

1. The restoration works of collapsed tower at Location no 150 of 400kV D/C Quad moose Jaigad-Karad transmission line shall be completed within **45 days** from the Date of Contract including monsoon period. The Completion Period shall be deemed to be the essence of the Contract. The Contractor shall so organize his resources and perform his Work as to complete it not later than the date agreed to.
2. The work schedule/bar chart shall be submitted by contractor.
3. The daily/weekly progress report shall be submitted by contractor including action plan for expediting pending activity with respect to bar chart if any.

**Guarantee:**

The Contractor's defects liability period shall be limited to **one year** from date of charging of line. All costs for the repair and/or replacement of defective parts such as dismantling, re-erection, supply, transportation, etc. shall be to the account of Contractor. A Final Acceptance Certificate will be issued only after successful completion of Guarantee Period / defects liability period.

**General terms & condition:**

1. All the T&P's including special tools if any required during restoration works shall be arranged by the Contractor at his own cost. The Contractor shall only be responsible for any damage to and / or loss of his erection tool. All tools & tackles shall be tested & certified for safe working load from competent authority.
2. The contractor has to submit work methodology to be adapted for restoration work.
3. The contractor has to perform material testing of construction material like steel, cement, aggregates etc.





4. All restoration works shall be executed in accordance with good industry practices followed by MSETCL/PGCIL.
5. BOQ working quantity can be increased/decreased as per site requirement. The payment shall be made as per actual quantum of work executed as per joint measurement certificate.

**Works & Safety Regulations:**

1. The contractor has to follow all safety rules & regulations as per JSW standards.
2. The Contractor shall ensure the safety of all the workmen, materials and equipment either belonging to him or to others working at site. All safety rules and codes applied by the Owner at site shall be observed by the Contractor without exception. The Contractor shall be responsible for the safety of the equipment/material and Work to be performed by him.
3. The Contractor shall ensure compliance of all applicable Rules, Regulations etc. as framed under the Electricity Act, 2003.





Ref: JPTL/ETM/LOI-02

Date: 10.10.2020

### LETTER OF INTENT

**M/s Greenmint Power Pvt. Limited**

Office No.2, Navbhavana Premises,  
422, S.V. Savarkar Road, Prabhadevi,  
Mumbai-400025, Maharashtra (India).

**Attn:** Mr. Mohan Bhingole

**Subject:** Restoration works of collapsed tower at Location no 150 of 400kV JTPL Jaigad-Karad Line

Ref: Your offer and various discussions on the subject proposal

With reference to above, we are pleased to issue this letter of Intent (LOI) to you for Restoration works of collapsed tower at Location no 150 of 400kV JTPL Jaigad-Karad Line at Chiplun as per the following major terms and conditions.

**1. Contract Effective Date :**

Effective Date of Contract (EDC)-The Effective Date of Contract shall be the date of signing of Contract or date of Letter of Intent or contract (LOI), whichever is earlier.

**2. Price Basis:**

For JPTL ,Chiplun site. The Price shall remain firm and fixed throughout the period of the contract

**3. Scope of Work:**

The scope of this LOI includes Restoration works of collapsed tower at Location no 150 of 400kV JTPL Jaigad-Karad Line at Chiplun as per the scope, bill of quantity (BOQ) attached in **Annexure – I** and **Technical Specifications (SOW)** duly signed and agreed.

**2. Total Purchase Price:**

The Total Purchase Price for the above scope of work shall be Rs. 66,71,956.00 (Rupees Sixty-Six Lakhs Seventy-One Thousand Nine Hundred Fifty-Six Only) on landed cost basis. The Total Purchase Price is inclusive of taxes such as Goods & Service Tax @ 18%. Income tax (TDS) as applicable shall be deducted from the bills submitted by you. The cost of lodging, boarding and travelling shall be to your account. The total purchase price shall remain firm and not subject to any cost escalation including fluctuations in the exchange rate between any currencies. The detailed price breakup is as attached in **Annexure- I**.

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**4. Effective Date of LOI:**

The LOI shall be Effective from 10.10.2020.

**5. Completion Schedule:**

Within 45 days as per receipt of mobilization payment.

**6. Liquidated Damages for Completion:**

Max 5% of the contract value.

**7. Warranty and Defect Liability :**

Since tower material and stub strengthening, design is being provided by JPTL/JSW. Contractor will be executing the work as per JPTL design; hence, defect liability period shall be 6 months. Also defect liability to be applied for workmen ship only.

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As per BOQ / Tender document (SOW)

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**15. Force Majeure:**

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**16. Rest of the Terms :**

As per the tender document ( SOW & BOQ) and BID terms.

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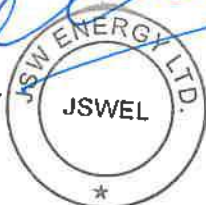
Yours faithfully

For **JSW Energy Ltd / Jaigad Powertransco Limited**

Acknowledged and Accepted

For **Greenmint Power(P) Ltd.**

Authorized Signatory



Authorized Signatory

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**Annexure- I**  
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a	<b>Excavtion in Dry Fissured Rock &amp; Backfilling with Normal Soil. (Leg A, B, D) - (2x2x1.5)</b>	CUM	18	10,000	1,80,000
b	<b>Excavtion in Hard Rock &amp; Backfilling with Normal Soil. (Leg-C)- (2x2x1.5)</b>	CUM	6	30,000	1,80,000
c	<b>Stub strengthening by jointing new stub including stub setting to maintain original tower slope by applying zinc reach cold welding coating, painting of stub etc.</b>	Per leg	4	1,00,000	4,00,000
d	<b>Supply and placement of Concreting with all associated works - M50- (1.25x1.25x1.5) for 4 legs</b>	CUM	10	30,000	3,00,000
e	<b>Supply and placement of Reinforcement Steel</b>	MT	0.5	20,000	10,000





Sr No	Activity	UOM	Estimated Quantity	Unit Rate	Total
6	Tower Erection and fixing of all tower accessories, Punching, Tack Welding, Painting, Cross-arm Strengthening e.t.c including supply of labours and T&P.	MT	78	16,000	12,48,000
7	Fabrication of tower material for matching any shortfall tower members, cleats, plates inclusive of labour and T&P complete	Nos	500	300	1,50,000
8	Type of Earthing including supply of material, labour and T&P, headloding if any complete			1,00,000	1,00,000
a	Pipe type Earthing	Set	2	25,000	50,000
b	Counterpoise Earthing	Set	2	25,000	50,000
9	Tension Stringing of D/C with quad ACSR MOOSE Conductor along with insulator hoisting and hardware & accessories installation, jumpering and sagging complete	Route KM	0.509	9,00,000	4,58,100
10	Stringing of two No. of 7/3.66 GI earth wire along with fixing of suspension & tension clamps & accessories installation complete	Route KM	0.509	1,00,000	50,900
12	Watch & ward of construction material at site.	LS	1	1,50,000	1,50,000
	<b>Total Basic value</b>				<b>56,54,200</b>
	<u>GST@18%</u>				10,17,756
	<b>Total value</b>				<b>66,71,956</b>

*Handwritten signature*

JSW ENERGY LTD.  
JSWEL  
★



## NOTE FOR APPROVAL

Ref No:Jaigad Power Transco Ltd/Chiplun/Transmission/09-10-2020/816808

Date:09-10-2020

Department : Transmission

NFA Status :APPROVED

Approval Type:Capex

Amount:INR 6,671,956(INR- Sixty Six Lakh Seventy One Thousand Nine Hundred and Fifty Six Only)

Final Budget:7366700

LPO Amount:NA

Subject:Proposal for Restoration works of collapsed tower at Location no 150 of 400kV JTPL Jaigad-Karad Line

### Preamble Details:

Proposal for Restoration works of collapsed tower at Location no 150 of 400kV JTPL Jaigad-Karad Line.

Above repairing work is required to restore 400kV Jaigad-Kard Line 1 & 2 on war footing.

### Technical/Functional Details/Commercial Details:

Budget Available: INR 73.67 Lakh

Proposal Value : INR 66.72Lakh (Tax Inclusive)

S.No	Vendor Name	Initial Value (Rs)	Nego Value (Rs)
1	Greenmint Power	8,145,894	6,671,956
2	Supreme & CO	12,775,978	12,775,978
3	Ramelex Private Limited	22,531,923	22,531,923
4	BNC Power Projects Ltd,	31,600,188	27,707,674

### Business Justification:-

LPO: Not Available

User Estimate: INR 63.52 Lakh

### Reason of Higher proposal cost w.r.t user estimate:

During discussion with all the bidders, bidders informed that due to difficult hilly terrain and approach road of transmission line, heavy resource and manpower will be required for timely completion of repair works. Also due to COVID crisis, manpower & T&P & material movement expense, To & Fro, Lodging & Boarding expense and Safety PPEs related expense will be higher as compare to regular mobilization & repairing works.

User estimation is based on MSETCL rate chart of FY 16-17 (Refer the attachment).

### Proposal Details:



It is proposed to place order on M/s Greenmint Power for Restoration works of collapsed tower at Location no 150 of 400kV JTPL Jaigad-Karad Line.

**Other Details:**

**Detail Commercial Terms:**

Sr No	OTHER TERMS AND CONDITIONS	JSW Requirements	Vendor Agreed Terms
1	Contract Effective Date	Effective Date of Contract (EDC)- LOI/PO date	Accepted
2	Price Basis	For JPTL , Chiplun site. The Price shall remain firm and fixed through out the period of the Contract	Accepted
3	Completion/Delivery Schedule	The restoration works of collapsed tower at Location no 150 of 400kV D/C Quad moose Jaigad-Karad transmission line shall be completed within 45 days from the Date of Contract including monsoon period.	Accepted ,45days a&#1048908;er receipt of mobiliza&#1048991;on payment.
4	Site Mobilization	As per JSW requirement	Accepted
5	Free issue material / Facility	as per BOQ ( if any)	Accepted
6	Payment Terms for Services	1. 90% of the contract price puls 100% taxes and duties shall be paid in 30 days on submission of monthaly R.A.bills 2. 10% of the Contract price shall be kept as retention and shall be paid after compeltion of the work and agnist submisson of performance bank guarantee (PBG) from Nationalised bank of equivalent amount valid till defect libility plus period + Two months	mobilization payment within 7 days from mobilization/RA bill will be raised on a weekly basis, at the end of every week; and should be cleared in 3 days/5% amount of contract value should be kept as retention and should be cleared immediately after completion of defect liability period.
7	LD for Completion	Max 5% of the total contract price.	Accepted
8	Lodging ,Boarding and Travelling	Contractor Scope	Accepted Since tower material and stub strengthening, design is being provided by JSW. Contractor will be
9	Warranty & Defect liability period	The Contractor's defects liability period shall be limited to one year from date of charging of line.	executing the work as per you design, hence defect liability period should be reduced to 6 months. Also defect liability to be applied for workmen ship only.
10	Insurance Coverage	Contractor shall take Contractor's scope	Accepted
11	Rest of the Terms : As per tender document	As per Scope of Works and Bld Terms	Accepted

**NFA Enclosures:**

Final Offer.zip

Initiated by:



sumit shankar - ,  
09-10-2020

NFA Status :APPROVED

Signature

Signature

Approved by: kamal.bhanawat - , 09-10-2020 Approver Status : APPROVED

Remarks:-;;; negotiated rate is 5% higher than the estimate which is reasonable considering that estimate is based on MSEB schedule rates for Transmission line work at ground level and the job is to be done on hilly terrain

*No Signature*

Signature

Approved by: yalish chhabra - , 09-10-2020 Approver Status : APPROVED

Remarks:-;;; Approved

*No Signature*

Signature

Approved by: ashesh.padhy@jsw.in - , 09-10-2020 Approver Status : APPROVED

Remarks:-;;; L1 (0.67 Cr) negotiated value and matches with our estimate. H1 is Rs 2.77 Cr. CPC concluded a good negotiation, at a very good speed. This work is a brilliant case-study of working against extreme geographical condition. Site team is doing many innovative repair methods.

*No Signature*

Signature

Approved by: pritesh vinay - CFO, Finance & Accounts, Commercial 09-10-2020 Approver Status : APPROVED

Remarks:-;;; Approved. Great job done by the team.

*No Signature*



Signature

**Approved by:** Prashant Jain -, 09-10-2020 **Approver Status :** APPROVED

**Remarks:-**;; Approved

*No Signature*

Signature



						Ramelex Private Limited		BNC Power Projects Ltd.			Supreme & CO		Greenmint Power		
						Quoted /Nego		Quoted	Nego		Quoted/Nego		Quoted	Nego	
Sr No	Activity	UOM	Estimated Quantity	User Estimated Rate	User Estimated Cost	Unit Rate	Total	Unit Rate	Unit Rate	Total	Unit Rate	Total	Unit Rate	Unit Rate	Total
1	Mobilisation & Demobilisation of T&P, labours to site to attend breakdown (Each gang shall be comprise of 50 skilled/unskilled manpower)	Per gang	4	75,000	3,00,000	4,50,000	18,00,000	5,50,000	3,25,000	13,00,000	3,85,000	15,40,000	5,00,000	1,50,000	6,00,000
3	Dismantling works									-					-
a	Dismantling of collapsed tower by using of gas cutter & ratchet/ spanner set wherever required.	MT	70	7,500	5,25,000	21,000	14,70,000	68,000	52,000	36,40,000	9,200	6,44,000	12,000	12,000	8,40,000
b	Dismantling of conductor, hardware & other associated accessories in all respect	Route KM	0.509	18,00,000	9,16,200	15,00,000	7,63,500	30,00,000	30,00,000	15,27,000	-	3,85,000	7,00,000	7,00,000	3,56,300
c	Dismantling of earthwire, hardware & other associated accessories in all respect	Route KM	0.509	62,500	31,813	1,50,000	76,350	3,20,000	2,80,000	1,42,520	-	1,26,000	50,000	1,00,000	50,900
-	Breaking of existing tower concrete foundation, if required	Meter	8	12,500	1,00,000	1,50,000	12,00,000	18,000	12,000	96,000	-	3,15,000	30,000	30,000	2,40,000
e	Providing Temp.stays at location of tower collapse /Removal of stays after completion of work wherever necessary	Per stay	24	6,250	1,50,000	1,25,000	30,00,000	65,000	55,000	13,20,000	95,000	22,80,000	10,000	10,000	2,40,000
5	Civil BOQ for strengthening of foundation									-					-
a	Excavtion in Dry Fissured Rock & Backfilling with Normal Soil. (Leg A, B, D) - (2x2x1.5)	CUM	18	1,500	27,000	1,75,000	31,50,000	3,500	2,850	51,300	1,700	30,600	10,000	10,000	1,80,000
b	Excavtion in Hard Rock & Backfilling with Normal Soil. (Leg-C)- (2x2x1.5)	CUM	6	2,000	12,000	2,25,000	13,50,000	9,800	7,500	45,000	3,500	21,000	30,000	30,000	1,80,000
c	Stub strengthening by jointing new stub including stub setting to maintain original tower slope by applying zinc reach cold welding coating, painting of stub etc.	Per leg	4	1,00,000	4,00,000	1,55,000	6,20,000	6,50,000	5,85,000	23,40,000	65,000	2,60,000	1,00,000	1,00,000	4,00,000
d	Supply and placement of Concreting with all associated works - M50- (1.25x1.25x1.5) for 4 legs	CUM	10	13,000	1,30,000	45,000	4,50,000	92,000	92,000	9,20,000	16,000	1,60,000	30,000	30,000	3,00,000
e	Supply and placement of Reinforcement Steel	MT	0.5	80,000	40,000	1,50,000	75,000	1,50,000	1,50,000	75,000	71,000	35,500	20,000	20,000	10,000
6	Tower Erection and fixing of all tower accessories, Punching, Tack Welding, Painting, Cross-arm Strengthening e.t.c including supply of labours and T&P.	MT	78	12,500	9,75,000	31,000	24,18,000	98,000	92,000	71,76,000	27,000	21,06,000	16,000	16,000	12,48,000
7	Fabrication of tower material for matching any shortfall tower members, cleats, plates inclusive of labour and T&P complete	Nos	500	400	2,00,000	950	4,75,000	3,500	3,500	17,50,000	3,500	17,50,000	300	300	1,50,000
8	Type of Earthing including supply of material, labour and T&P, headloding if any complete									-			1,00,000	1,00,000	1,00,000
a	Pipe type Earthing	Set	2	18,000	36,000	55,000	1,10,000	9,500	8,500	17,000	11,000	22,000	25,000	25,000	50,000
b	Counterpoise Earthing	Set	2	14,000	28,000	55,000	1,10,000	8,500	7,500	15,000	15,000	30,000	25,000	25,000	50,000
9	Tension Stringing of D/C with quad ACSR MOOSE Conductor along with insulator hoisting and hardware & accessories installation, jumpering and sagging complete	Route KM	0.509	25,00,000	12,72,500	27,00,000	13,74,300	49,00,000	46,00,000	23,41,400		9,00,000	9,00,000	9,00,000	4,58,100

10	Stringing of two No. of 7/3.66 GI earth wire along with fixing of suspension & installation complete	Route	0.509	78,000	39,702	1,52,700	5,60,000	5,40,000	2,74,860	22,000	50,000	1,00,000	50,900
12	Watch & ward of construction material at site.	LS	1	2,00,000	2,00,000	5,00,000	4,50,000	2,00,000	2,00,000	2,00,000	1,50,000	1,50,000	1,50,000
Total Basic value				53,83,215		1,90,94,850	2,67,79,820		2,34,81,080	1,08,27,100	69,03,300		56,54,200
GST@18%				9,68,979		34,37,073	48,20,368		42,26,594	19,48,878	12,42,594		10,17,756
Total value				63,52,193		2,25,31,923	3,16,00,188		2,77,07,674	1,27,75,978	81,45,894		66,71,956
Commercial Terms & Conditions													
Vendor Acceptance/ Remarks													

Sr No	OTHER TERMS AND CONDITIONS			JSW Requirements			Vendor Acceptance/ Remarks						
1	Contract Effective Date		Effective Date of Contract (EDC)-The date of signing of Contract shall be the Letter of Intent or contract (LOI), whichever is earlier.	Accepted			Effective date of Contract shall be considered from date of handing over of site in complete shape i.e. after completion of approach road to the location and from the date of handing over of material to be supplied by Contract or date of Letter of Intent or contract (LOI), whichever is earlier.	Accepted		Date of signing of contract and receipt of confirmed Order, acceptable to either parties	Accepted		
2	Price Basis		For JPTL , Chipiun site	Accepted			NA	Accepted		Includes freight, GST extra, as applicable	Accepted		
3	Firm Price		Firm Price-The Price shall remain firm and fixed through out the period of the Contract, no escalation whatsoever, shall be allowed on any account	Accepted			Our quoted rates is on Firm price basis. If any extra item needs to be executed for completion of work then the same shall be charged extra. Billing shall be done on actual executed basis.	Accepted		Offered prices are valid for 30 days from this date.	Accepted		
4	Completion/Delivery Schedule		The restoration works of collapsed tower at Location no 150 of 400kV D/C Quad moose Jaigad-Karad transmission line shall be completed within 45 days from the Date of Contract including monsoon period. The Completion Period shall be deemed to be the essence of the Contract. The Contractor shall so organize his resources and perform his Work as to complete it not later than the date agreed to.				work shall be completed within 45 days from the date completion of approach road.			As the working site is located in hill terrain, we request you to make a approach road upto site location. Also due to heavy rain in Ratnagiri region there are chances of damage to the road at various section of roads which will effect the transportation of material at location. Considering the site condition and being wild life prone zone we request that time limit shall be considered as 70 days from the date of handing over of site.		Accepted, 45days a er receipt of mobiliza on payment.	
	Site Mobilisation		Exclusive resources shall be mobilized by you as agreed at site for the scope of work under this contract without diverting existing resources (s) from any of your ongoing jobs at our and / or our group company's locations. You undertake not to lure any resources of as per BOQ ( if any)	Accepted			We conform that we shall provide exclusive team of workers, T&P for this particular work within 7 days from the date of receipt of LOA	Accepted		Need detailed BOQ with the drawings of Towers, stubs, foundation etc before signing of the contract.	Accepted		
6	Free issue material / Facility			Accepted			NA	Accepted		Detailed BOQ will be part of the contract before signing and no excessive or lower to that of agreed BOQ will be supplied. All the used/scrap as part of agreed BOQ will be returned to	Accepted		
7	Rate of Recovery for free issue materials.		All unused/scrap materials shall be the property of the Employer and shall be returned by the Contractor at his own cost category wise in good and acceptable conditions by the Contractor	Accepted			This Clause ,is not accepted to us. The rate of uncredited material shall be the rate prevailing in the market towards scrap material. This rate shall be derived by collecting quotations from any three local scrap vendors	Accepted		Not applicable	Accepted		
8	Power and Water (single point)		in Contractor scope	Accepted				Accepted			Accepted		
9	Performance Security		10% PGB for defectibility period	Accepted				Accepted			Accepted		

10	Payment Terms for Services	1. 90% of the contract price plus 100% taxes and duties shall be paid in 30 days on submission of monthly R.A.bills 2. 10% of the Contract price shall be kept as retention and shall be paid after completion of the work and against submission of performance bank guarantee (PBG) from Nationalised bank of equivalent amount valid till defect liability plus period + Two months		1. 25% of PO value along with Taxes and duties shall be paid in advance along with PO. 2. 65% of the contract price plus 100% taxes and duties shall be paid in 30 days on submission of monthly R.A.bills 3. 10% of the Contract price shall be kept as retention and shall be paid after completion of the work and against submission of performance bank guarantee (PBG) from Nationalised bank of equivalent amount	As the contract completion period is very short and considering critical site location, we request you to release 100 % payment of the contract price alongwith 100% taxes and duties within 15 days on submission of monthly R.A.bills	1. 100% towards supply items within 7 days, after receipt at site 2. Operation and execution costs within 15 days of submission of BQ wise bills 3. NO PBG acceptable	mobilization on payment within 7 days from mobilization. Since this is an emergency and fast track job, RA bill will be raised on a weekly basis, at the end of every week; and should be cleared in 3 days. Instead of the last 10%, 5% amount of contract value should be kept as retention and should be cleared immediately after completion of defect liability period.
11	LD for Completion	Max 10% of the total contract price.		Accepted	Not accepted. LO clause to be deleted	NA	Accepted ,5%
12	LD for performance	LD for non-achievement of performance parameters Max .10% of the total contract value		Accepted	Not Accepted	0.5% per week, limited to max 5% of the contract value.	Accepted ,5%
13	Combined LD limits completion & Performance	Not more than 10%		Accepted	Not Accepted	0.5% per week, limited to max 5% of the contract value.	Accepted
14	Lodging ,Boarding and Travelling	Contractor Scope		Accepted	Accepted	of site execution team of the Contractor, will be to the scope of Contractor/Awardee.	Accepted
15	Termination Clause	Applicable , with 7 days notice		Accepted	Accepted	To be negotiated during pre-order meeting/site visit.	Accepted
16	Valuations of Variations	Variation exceeding 10 Percent: In case of individual quantity variation being more than +10%, the Company shall have the right to negotiate for the quantity beyond 110% of the BOQ quantity for downward revision which shall be mutually discussed and finalized. Any other variation of Individual		Accepted	Accepted. Billing shall be done for actual executed quantity.	PV clause applicable as per IEEMA indices, for supply part only.	Accepted
17	Warranty & Defect liability period	The Contractor's defects liability period shall be limited to one year from date of charging of line. All costs for the repair and/or replacement of defective parts such as dismantling, re-erection, supply, transportation, etc. shall be to the account of Contractor. A Final Acceptance Certificate will be issued only after successful completion of Guarantee Period / defects liability period.		Accepted	As the 90% material shall be supplied by JSW, there is no need of warranty & Defect liability period for this contract to due emergency work	OK	Since tower material is supplied by you, and stub strengthening, design is being provided by you. We will be executing the work as per your design, hence defect liability period should be reduced to 6 months. Also defect liability to be applied for workmanship only.
18	Dispute and Arbitration	Mumbai Jurisdiction		Accepted	Accepted	OK	Accepted
19	Risk Purchase	Notwithstanding anything contained in this Contract, if at any stage, we are of the opinion that delay is taking place or likely to take place in the execution of Contract, We shall have the rights to procure required materials from alternate source(s) entirely at your risk, cost & expenses including incidental expenses. This shall be over & above liquidated damages towards delay in completion.		Accepted	We already confirmed that the work will be completed within stipulated time period subject availability of approach road, material availability and monsoon condition Hence not accepted to us.delay on account of above reasons is not attributed to us hence this clause is	Please share the list of approved vendors list of items listed in above BOQ, enabling us to confirm our stand on this RISK PURCHASE clause.	Accepted

20	Insurance Coverage	Contractor shall take all necessary transite insurance & insurance with respect to the works, contractor's personnel, third party insurance etc, Insurance coverage for staff/ workmen (workman commensuration) in Contractor's scope	Accepted	OSM insurance will be in JSW scope	OK	Accepted
21	Limit of liability	limited to 100% of the contract price regardless of whether such liability arises out of contract, warranty, tort (including negligence), strict liability or otherwise	Accepted	Accepted	Not	liability shall be limited to the BOQ and scope of work as agreed during signing of contract.
22	Price Validity	30 days	Accepted	Accepted	30 days	Accepted
23	Rest of the Terms ; As per tender document	Noted, Subject to additional comments mentioned in our offer	Accepted	Noted, Subject to additional comments mentioned in our offer	pls share GCC & SCC, before site visit.	Accepted
24	Safety Complainece	The Contractor shall observe strictly the General Health, Safety & Environment	Accepted	NA	OK	
	Contact person		Dharmnand Bansod	Mr. Kapil Singhal / Mr. Prakash Reddy. K	Mr Brijesh/Mr Mohan	
26	Mobile no		9822872032	+91 99099 11718 +91 99039 99578	9833378586 /9090616263	
27	Email ID		info@ramelex.com	bhchaudhary@yahoo.co.in	kapil@supremeco.com prakash.prod@supreme.in	brijesh@greenminpower.com / mohanbhingole@gmail.com
	Wastage or line material		NA	10% of consumed quantity of all line material such as conductor, insulator,	Please refer the note as mentioned at the end of the BOQ Offer	
3	Optional : As and when required as per site requirements					
a	Civil BOQ for new foundation if required with supply of all materials (cement, sand, chips and other required materials), labour and T&P complete.	Per Leg	3	0	350000	1050000
b	Excavation in Dry Fissured Rock & Backfilling with Normal Soil. (Leg A, B, D)	Per leg	1	0	545000	545000
c	Excavation in Hard Rock & Backfilling with Normal Soil. (Leg-C)	MT	2.225	0	75000	166875
d	Stub Setting	CUM	90	0	19000	1710000
e	Supply and placement of Concreting with all associated works - M20	CUM	9	0	17000	153000
f	Supply and placement of Concreting with all associated works - M10	MT	7.5	0	150000	1125000

10/9/2020

JSW Mail - Final No Regret Offer for Restoration works of collapsed tower at Location no 150 of 400kV Jaigad-Karad Line(JPTL) at Ratn...



Sumit Shankar <sumit.shankar@jsw.in>

## Final No Regret Offer for Restoration works of collapsed tower at Location no 150 of 400kV Jaigad-Karad Line(JPTL) at Ratnagiri

Mohan Bhingole <mohanbhingole@gmail.com>  
To: Sumit Shankar <sumit.shankar@jsw.in>

Fri, Oct 9, 2020 at 1:01 PM

Dear Sir,  
forwarding herewith the quotes for revised BOQ.  
thanking you,  
Regards  
Mohan Bhingole

On Fri, Oct 9, 2020 at 10:10 AM Sumit Shankar <sumit.shankar@jsw.in> wrote:  
fyi

Thanks & Regards,

Sumit Shankar | Corporate Commercial | JSW Energy Ltd. |

JSW Centre, Bandra Kurla Complex, Mumbai – 400051 | Maharashtra | India

T 91 22 42661000 | Ext: 2116 | Mobile: 09449879362

Email: [sumit.shankar@jsw.in](mailto:sumit.shankar@jsw.in) | Website: [www.jsw.in](http://www.jsw.in) |

On Fri, Oct 9, 2020 at 8:34 AM Mohan Bhingole <mohanbhingole@gmail.com> wrote:

Dear Sir,

Following is the reply to your mail.

Point no.2: Contract Duration: 45days after receipt of mobilization payment.

Point no. 3: mobilization payment within 7 days from mobilization. Since this is an emergency and fast track job, RA bill will be raised on a weekly basis, at the end of every week; and should be cleared in 3 days. Instead of the last 10%, 5% amount of contract value should be kept as retention and should be cleared immediately after completion of defect liability period.

Point no. 4: Since tower material is supplied by you, and stub strengthening, design is being provided by you. We will be executing the work as per you design, hence defect liability period should be reduced to 6 months. Also defect liability to be applied for workmen ship only.

Point no. 8: against LD clause, we will expect 5% incentives on completion of job on or before specified time.

Other:

BOQ item no. 8: On Site fabrication of tower material for matching any shortfall, at times we don't know the material details. Hence we have not quoted anything against this item, in case it is required to be fabricated on site it will be charged @Rs. 150/kg.

Fabrication of tower material for extension of tower material (BOQ Item no. 12) 50% advance payment and remaining after reaching the material site to be cleared.

Thanking you,

Regards

Mohan Bhingole

On Thu, Oct 8, 2020 at 5:40 PM Sumit Shankar <sumit.shankar@jsw.in> wrote:  
Dear Sir



10/9/2020

JSW Mail - Final No Regret Offer for Restoration works of collapsed tower at Location no 150 of 400kV Jaigad-Karad Line(JPTL) at Rath...

As per your below attach quotation and today discussion with our **Corporate Commercial Head Mr Kamal Bhanawat** for Restoration works of collapsed tower at Location no 150 of 400kV Jaigad-Karad Line(JPTL) at Rathnagiri. Kindly review the below point and confirm:

1) Price Basis: For JPTL , Chiplun site

2) Contract Duration: within 45 days from PO/LOI date.

3) Payment Terms: Mobilization payment within 15 days from site mobilization, remaining RA bill within 21 days from bill submission and certification by Engineer In Charge, last 10% of the Contract price shall be kept as retention and shall be paid after completion of the work and released against submission of performance bank guarantee (PBG) of equivalent amount valid till defect liability plus period + Two months

4) Defect Liability Period: 12 months from job completion.

5) Quantity Variation: As per Scope of Works

6) All HR related compliance, Safety PPE's : As per Scope of Works

7) To & Fro, Boarding & Lodging: As per Scope of Works

8) LD for delay: 0.5% per week of delay, maximum 5% of contract value.

9) All the other scope and terms: As per Tender Scope of works.

10) Final No Regret offer: Review your offer once more and submit your Final No Regret Discounted offer for our consideration.

11) Mobilization: As per JSW requirement

12) Price Validity: Order price will be firm till completion of contract.

Acknowledge the receipt of the same.

Thanks & Regards,

Sumit Shankar | Corporate Commercial | JSW Energy Ltd. |

JSW Centre, Bandra Kurla Complex, Mumbai – 400051 | Maharashtra | India

T 91 22 42861000 | Ext: 21161 | Mobile: 09449979362

Email: [sumit.shankar@jsw.in](mailto:sumit.shankar@jsw.in) | Website: [www.jsw.in](http://www.jsw.in) |

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 **BOQ JTPLMumbai.xlsx**  
11K



Sumit Shankar &lt;sumit.shankar@jsw.in&gt;

**Final No Regret Offer for Restoration works of collapsed tower at Location no 150 of 400kV Jaigad-Karad Line(JPTL) at Ratnagiri**

Mohan Bhingole <mohanbhingole@gmail.com>  
To: Sumit Shankar <sumit.shankar@jsw.in>

Fri, Oct 9, 2020 at 3:39 PM

As discussed with Kamal Sir, we are agree to reduce labour team mobilization and demobilisation charges from Rs. 1000000/ (ten lakh) to Rs. 600000/(Six lakh)

thanking you,  
regards  
Mohan

On Fri, Oct 9, 2020 at 1:01 PM Mohan Bhingole <mohanbhingole@gmail.com> wrote:

Dear Sir,  
forwarding herewith the quotes for revised BOQ.  
thanking you,  
Regards  
Mohan Bhingole

On Fri, Oct 9, 2020 at 10:10 AM Sumit Shankar <sumit.shankar@jsw.in> wrote:

fyi

Thanks & Regards,

**Sumit Shankar** | Corporate Commercial | JSW Energy Ltd. |

JSW Centre, Bandra Kurla Complex, Mumbai – 400051 | Maharashtra | India

T 91 22 42861000 | Ext: 2116 | Mobile: 09449879362

Email: [sumit.shankar@jsw.in](mailto:sumit.shankar@jsw.in) | Website: [www.jsw.in](http://www.jsw.in) |

On Fri, Oct 9, 2020 at 8:34 AM Mohan Bhingole <mohanbhingole@gmail.com> wrote:

Dear Sir,

Following is the reply to your mail.

Point no.2: Contract Duration: 45days after receipt of mobilization payment.

Point no. 3: mobilization payment within 7 days from mobilization. Since this is an emergency and fast track job, RA bill will be raised on a weekly basis, at the end of every week; and should be cleared in 3 days. Instead of the last 10%, 5% amount of contract value should be kept as retention and should be cleared immediately after completion of defect liability period.

Point no. 4: Since tower material is supplied by you, and stub strengthening, design is being provided by you. We will be executing the work as per you design, hence defect liability period should be reduced to 6 months. Also defect liability to be applied for workmen ship only.

Point no. 8: against LD clause, we will expect 5% incentives on completion of job on or before specified time.

Other:

BOQ item no. 8: On Site fabrication of tower material for matching any shortfall, at times we don't know the material details. Hence we have not quoted anything against this item, in case it is required to be fabricated on site it will be charged @Rs. 150/kg.

Fabrication of tower material for extension of tower material (BOQ Item no. 12) 50% advance payment and remaining after reaching the material site to be cleared.

Thanking you,

Regards

Mohan Bhingole

On Thu, Oct 8, 2020 at 5:40 PM Sumit Shankar <sumit.shankar@jsw.in> wrote:

Dear Sir

As per your below attach quotation and today discussion with our **Corporate Commercial Head Mr Kamal Bhanawat** for Restoration works of collapsed tower at Location no 150 of 400kV Jaigad-Karad Line(JPTL) at Ratnagiri. Kindly review the below point and confirm:

- 1) Price Basis: For JPTL, Chiplun site
- 2) Contract Duration: within 45 days from PO/LOI date.
- 3) Payment Terms: Mobilization payment within 15 days from site mobilization, remaining RA bill within 21 days from bill submission and certification by Engineer In Charge, last 10% of the Contract price shall be kept as retention and shall be paid after completion of the work and released against submission of performance bank guarantee (PBG) of equivalent amount valid till defect liability plus period + Two months
- 4) Defect Liability Period: 12 months from job completion.
- 5) Quantity Variation: As per Scope of Works
- 6) All HR related compliance, Safety PPE's : As per Scope of Works
- 7) To & Fro, Boarding & Lodging: As per Scope of Works
- 8) LD for delay: 0.5% per week of delay, maximum 5% of contract value.
- 9) All the other scope and terms: As per Tender Scope of works.
- 10) Final No Regret offer: Review your offer once more and submit your Final No Regret Discounted offer for our consideration.
- 11) Mobilization: As per JSW requirement
- 12) Price Validity: Order price will be firm till completion of contract.

Acknowledge the receipt of the same.

Thanks & Regards,

Sumit Shankar | Corporate Commercial | JSW Energy Ltd. |

JSW Centre, Bandra Kurla Complex, Mumbai -- 400051 | Maharashtra | India

T 91 22 42861000 | Ext. 2116 | Mobile: 09449879362

Email: [sumit.shankar@jsw.in](mailto:sumit.shankar@jsw.in) | Website: [www.jsw.in](http://www.jsw.in) |

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Sr No	Activity	UOM	Estimated Quantity
1	Mobilisation & Demobilisation of T&P, labours to site to attend breakdown (Each gang shall be comprise of 50 skilled/unskilled manpower)	Per gang	4
3	Dismantling works		
a	Dismantling of collapsed tower by using of gas cutter & ratchet/ spanner set wherever required.	MT	70
b	Dismantling of conductor, hardwares & other associated accessories in all respect	Route KM	0.509
c	Dismantling of earthwire, hardwares & other associated accessories in all respect	Route KM	0.509
d	Breaking of existing tower concrete foundation, if required	Meter	8
e	Providing Temp.stays at location of tower collapse /Removal of stays after completion of work wherever necessary	Per stay	24
5	Civil BOQ for strengthening of foundation		
a	Excavation in Dry Fissured Rock & Backfilling with Normal Soil. (Leg A, B, D) - (2x2x1.5)	CUM	18
b	Excavtion in Hard Rock & Backfilling with Normal Soil. (Leg-C)- (2x2x1.5)	CUM	6
c	Stub strengthening by jointing new stub including stub setting to maintain original tower slope by applying zinc reach cold welding coating, painting of stub etc.	Per leg	4
d	Supply and placement of Concreting with all associated works - M50-(1.25x1.25x1.5) for 4 legs	CUM	10
e	Supply and placement of Reinforcement Steel	MT	0.5
6	Tower Erection and fixing of all tower accessories, Punching, Tack Welding, Painting, Cross-arm Strengthening e.t.c including supply of labours and T&P.	MT	78
7	Fabrication of tower material for matching any shortfall tower members, cleats, plates inclusive of labour and T&P complete	Nos	500
8	Type of Earthing including supply of material, labour and T&P, headloading if any complete		
a	Pipe type Earthing	Set	2
b	Counterpoise Earthing	Set	2
9	Tension Stringing of D/C with quad ACSR MOOSE Conductor along with insulator hoisting and hardware & accessories installation, jumpering and sagging complete	Route KM	0.509
10	Stringing of two No. of 7/3.66 GI earth wire along with fixing of suspension & tension clamps & accessories installation complete	Route KM	0.509
12	Watch & ward of construction material at site.	L5	1

Rate in RS.	Amount	Rs.
250000	1000000	
12000	840000	
700000	355300	
100000	50900	
30000	240000	
10000	240000	
10000	180000	
30000	180000	
100000	400000	
30000	300000	
20000	10000	
16000	1248000	
Rs. 150/kg	150000	bore machinery
		arrangme nt
100000	100000	
25000	50000	
25000	50000	
900000	458100	
100000	50900	
150000	150000	
	6054200	



Sumit Shankar &lt;sumit.shankar@jsw.in&gt;

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**Final No Regret Offer for Restoration works of collapsed tower at Location no 150 of 400kV Jaigad-Karad Line(JPTL) at Ratnagiri**

---

Sumit Shankar &lt;sumit.shankar@jsw.in&gt;

Thu, Oct 8, 2020 at 5:38 PM

To: kapil@supremeco.com, prakash.prod@supreme.in

Cc: Kamal Bhanawat &lt;kamal.bhanawat@jsw.in&gt;

Dear Sir

As per your below attach quotation and today discussion with our **Corporate Commercial Head Mr Kamal Bhanawat** for Restoration works of collapsed tower at Location no 150 of 400kV Jaigad-Karad Line(JPTL) at Ratnagiri. Kindly review the below point and confirm:

- 1) Price Basis: For JPTL, Chiplun site
- 2) Contract Duration: within 45 days from PO/LOI date.
- 3) Payment Terms: Mobilization payment within 15 days from site mobilization, remaining RA bill within 21 days from bill submission and certification by Engineer In Charge, last 10% of the Contract price shall be kept as retention and shall be paid after completion of the work and released against submission of performance bank guarantee (PBG) of equivalent amount valid till defect liability plus period + Two months
- 4) Defect Liability Period: 12 months from job completion.
- 5) Quantity Variation: As per Scope of Works
- 6) All HR related compliance, Safety PPE's : As per Scope of Works
- 7) To & Fro, Boarding & Lodging: As per Scope of Works
- 8) LD for delay: 0.5% per week of delay, maximum 5% of contract value.
- 9) All the other scope and terms: As per Tender Scope of works.
- 10) Final No Regret offer: Review your offer once more and submit your Final No Regret Discounted offer for our consideration.
- 11) Mobilization: As per JSW requirement
- 12) Price Validity: Order price will be firm till completion of contract.

Acknowledge the receipt of the same.

Thanks &amp; Regards,

Sumit Shankar | Corporate Commercial | JSW Energy Ltd. |

JSW Centre, Bandra Kurla Complex, Mumbai – 400051 | Maharashtra | India

T 91 22 42861000 | Ext: 2116 | Mobile: 09449879362

Email: [sumit.shankar@jsw.in](mailto:sumit.shankar@jsw.in) | Website: [www.jsw.in](http://www.jsw.in) |**Supreme & Co\_SOW\_Signed\_BOQ\_07102020.pdf**  
102K



Sumit Shankar &lt;sumit.shankar@jsw.in&gt;

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**Final No Regret Offer for Restoration works of collapsed tower at Location no 150 of 400kV Jaigad-Karad Line(JPTL) at Ratnagiri**

---

Sumit Shankar &lt;sumit.shankar@jsw.in&gt;

Thu, Oct 8, 2020 at 5:34 PM

To: info@ramelex.com

Cc: Kamal Bhanawat &lt;kamal.bhanawat@jsw.in&gt;, enquiry &lt;enquiry@ramelex.com&gt;, dhamanandb@rediffmail.com

Dear Sir

As per your below attach quotation for Restoration works of collapsed tower at Location no 150 of 400kV Jaigad-Karad Line(JPTL) at Ratnagiri. Kindly review the below point and confirm:

- 1) Price Basis: For JPTL, Chiplun site
- 2) Contract Duration: within 45 days from PO/LOI date.
- 3) Payment Terms: Mobilization payment within 15 days from site mobilization, remaining RA bill within 21 days from bill submission and certification by Engineer In Charge, last 10% of the Contract price shall be kept as retention and shall be paid after completion of the work and released against submission of performance bank guarantee (PBG) of equivalent amount valid till defect liability plus period + Two months
- 4) Defect Liability Period: 12 months from job completion.
- 5) Quantity Variation: As per Scope of Works
- 6) All HR related compliance, Safety PPE's : As per Scope of Works
- 7) To & Fro, Boarding & Lodging: As per Scope of Works
- 8) LD for delay: 0.5% per week of delay, maximum 5% of contract value.
- 9) All the other scope and terms: As per Tender Scope of works.
- 10) Final No Regret offer: Review your offer once more and submit your Final No Regret Discounted offer for our consideration.
- 11) Mobilization: As per JSW requirement
- 12) Price Validity: Order price will be firm till completion of contract.

Acknowledge the receipt of the same.

Thanks & Regards,

Sumit Shankar | Corporate Commercial | JSW Energy Ltd. |

JSW Centre, Bandra Kurla Complex, Mumbai – 400051 | Maharashtra | India

T 91 22 42861000 | Ext: 2116 | Mobile: 09449879362

Email: [sumit.shankar@jsw.in](mailto:sumit.shankar@jsw.in) | Website: [www.jsw.in](http://www.jsw.in) |

---

 Ramelex\_Signed BOQ and Tender Documnet.pdf  
461K



Sumit Shankar &lt;sumit.shankar@jsw.in&gt;

---

**Final No Regret Offer for Restoration works of collapsed tower at Location no 150 of 400kV Jaigad-Karad Line(JPTL) at Ratnagiri**

---

BNC Power Projects Ltd, Pune <bnchaudhary@yahoo.co.in>  
Reply-To: "BNC Power Projects Ltd, Pune" <bnchaudhary@yahoo.co.in>  
To: Sumit Shankar <sumit.shankar@jsw.in>  
Cc: "kamal.bhanawat@jsw.in" <kamal.bhanawat@jsw.in>

Thu, Oct 8, 2020 at 6:24 PM

Dear Sir

As per your below attach quotation for Restoration works of collapsed tower at Location no 150 of 400kV Jaigad-Karad Line(JPTL) at Ratnagiri. Kindly review the below point and confirm:

- 1) Price Basis: For JPTL , Chiplun site - **Agreed**
- 2) Contract Duration: within 45 days from PO/LOI date.- **Agreed ( JSW has to deliver owner supplied material at location no.150 before starting the work.)**
- 3) Payment Terms: Mobilization payment within 15 days from site mobilization, remaining RA bill within 21 days from bill submission and certification by Engineer In Charge, last 10% of the Contract price shall be kept as retention and shall be paid after completion of the work and released against submission of performance bank guarantee (PBG) of equivalent amount valid till defect liability plus period + Two months - **Agreed**
- 4) Defect Liability Period: 12 months from job completion.- **Agreed**
- 5) Quantity Variation: As per Scope of Works- **Agreed**
- 6) All HR related compliance, Safety PPE's : As per Scope of Works- **Agreed**
- 7) To & Fro, Boarding & Lodging: As per Scope of Works- **Agreed**
- 8) LD for delay: 0.5% per week of delay, maximum 5% of contract value.- **Agreed**
- 9) All the other scope and terms: As per Tender Scope of works.- **Agreed**
- 10) Final No Regret offer: Review your offer once more and submit your Final No Regret Discounted offer for our consideration.- **Please refer enclosed BOQ for your reference purpose.**
- 11) Mobilization: As per JSW requirement- **Agreed**
- 12) Price Validity: Order price will be firm till completion of contract.- **Agreed**

Acknowledge the receipt of the same.

Thanks and Regards

**Bhavana Sawant**

---

**BNC Power Projects Ltd,  
Butte Patil Complex, 3rd Floor,  
Next to Dashbhuja Ganpati,  
Karve Road,  
Pune - 411 038.  
Ph. No. 020-25460161, Fax 020-25460171**

bnchaudhary@yahoo.co.in, info@bncpower.in

**Website:- www.bncpower.in**

[Quoted text hidden]

10/9/2020 JSW Mail - Final No Regret Offer for Restoration works of collapsed tower at Location no 150 of 400kV Jaigad-Karad Line(JPTL) at Ratn...  
Final BOQ FYI

[Quoted text hidden]

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**BOQ with covering letter.pdf**  
2070K



# BNC Power Projects Ltd.



Ref: BNCPL/PNA/Offer/JSW/Emergency work/O1/2764

Date: 05.10.2020

To,  
JSW Ltd.,  
Chiplun.

Sub: Work of emergency restoration works of Loc # 150.

Ref.: Your email dated 03.10.2020.

Dear Sir,

We hereby submitting our offer for the emergency restoration works of Loc # 150 on following terms & conditions.

## Other terms & conditions:-

- i) The rates quoted in price schedule are exclusive of applicable taxes as per prevailing rates.
- ii) The rates quoted by us in only for erection portion. All required material shall be supplied by JSW free of cost.
- iii) ROW shall be resolved by JSW. Payment towards resolving ROW and compensation if any, shall be borne by JSW.
- iv) All testing charges i.e. testing of existing foundation, cube testing shall be paid extra by JSW.
- v) **Payment Terms:-**
  - a) Interest free advance @ 20% of order value shall be released within 2 days from the date of issue of LOA.
  - b) Balance Payment shall be released within 10 days from the date of invoice. Delay beyond 30 days shall attract interest @ 18% and shall be payable alongwith payment of invoice raised.
- vi) The work will be completed within 45 days after mobilization of manpower, machinery, tools & plants at site subject to ROW & clear weather condition.
- vii) Billing will be done as per actual quantities executed on site.
- viii) Any extra item needs to be executed as per site conditions then charges towards the same shall be paid extra by JSW.



---

CIN : U45207PN2007PLC143396  
Regd. & Corporate Office : Butte Patil Complex, 3rd Floor, Karve Road, Paud Phata, Next to Dashbhuj Ganpati Temple,  
Pune - 411038. Phone - 9765556755, 9049001312  
Email : bnchaudhary@yahoo.co.in, info@bncpower.in

- ix) Passes and permits if any required from Competent Authority shall be arranged by JSW in appropriate time on issuing requisition by the agency for transportation of material, tools, plants, manpower and machinery.  
Site shall be handed over on mobilization of complete manpower, tools & plants at site.
- x) Owner supplied material will be deliver free of cost at working location No.150 before starting the work.

We hope that our offer is in line with your requirement and now we looking for valuable work order from you.

Thanking You,

Yours Faithfully  
For BNC Power Projects Ltd



Authorized signatory

Encl.: Price Schedule

## Price Schedule

Sr No	Activity	UOM	Estimated Quantity	Unit Rate	Amount
1	Mobilisation & Demobilisation of T&P, labours to site to attend breakdown (Each gang shall be comprise of 50 skilled/unskilled manpower)	Per gang	4	325000.00	1300000.00
3	Dismantling works				0.00
a	Dismantling of collapsed tower by using of gas cutter & ratchet/ spanner set wherever required.	MT	70	52000.00	3640000.00
b	Dismantling of conductor, hardwares & other associated accessories in all respect	Route KM	0.509	3000000.00	1527000.00
c	Dismantling of earthwire, hardwares & other associated accessories in all respect	Route KM	0.509	280000.00	142520.00
d	Breaking of existing tower concrete foundation, if required	Meter	8	12000.00	96000.00
e	Providing Temp.stays at location of tower collapse /Removal of stays after completion of work wherever necessary	Per stay	24	55000.00	1320000.00
5	Civil BOQ for strengthening of foundation				0.00
a	Excavtion in Dry Fissured Rock & Backfilling with Normal Soil. (Leg A, B, D) - (2x2x1.5)	CUM	18	2850.00	51300.00
b	Excavtion in Hard Rock & Backfilling with Normal Soil. (Leg-C)- (2x2x1.5)	CUM	6	7500.00	45000.00
c	Stub strengthening by jointing new stub including stub setting to maintain original tower slope by applying zinc reach cold welding coating, painting of stub etc.	Per leg	4	585000.00	2340000.00
d	Supply and placement of Concreting with all associated works - M50- (1.25x1.25x1.5) for 4 legs	CUM	10	92000.00	920000.00
e	Supply and placement of Reinforcement Steel	MT	0.5	150000.00	75000.00
6	Tower Erection and fixing of all tower accessories, Punching, Tack Welding, Painting, Cross-arm Strengthening e.t.c including supply of labours and T&P.	MT	78	92000.00	7176000.00
7	Fabrication of tower material for matching any shortfall tower members, cleats, plates inclusive of labour and T&P complete	Nos	500	3500.00	1750000.00
8	Type of Earthing including supply of material, labour and T&P, headloding if any complete				0.00
a	Pipe type Earthing	Set	2	8500.00	17000.00
b	Counterpoise Earthing	Set	2	7500.00	15000.00



Sr No	Activity	UOM	Estimated Quantity	Unit Rate	Amount
9	Tension Stringing of D/C with quad ACSR MOOSE Conductor along with insulator hoisting and hardware & accessories installation, jumpering and sagging complete	Route KM	0.509	4600000.00	2341400.00
10	Stringing of two No. of 7/3.66 GI earth wire along with fixing of suspension & tension clamps & accessories installation complete	Route KM	0.509	540000.00	274860.00
12	Watch & ward of construction material at site.	LS	1	450000.00	450000.00
Sub Total:-					23481080.00
Add GST @ 18%:-					4226594.40
Grand Total:-					27707674.40
Say:-					2,77,07,674.00

For BNC Power Projects Ltd.



  
(Authorised Signatory)



A report on restoration of collapsed tower at location 150 of 400kV D/C (Quad) Jaigad-Karad transmission line

By, Jaigad PowerTransco Ltd  
(A Joint venture of JSWEL & MSETCL)

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## Introduction

Jaigad PowerTransco Limited (JPTL), joint venture company of JSW Energy Ltd and MAHATRANSCO—in the model of Public Private Partnership.

Jaigad PowerTransco Limited (JPTL) is a Transmission Licensee, which operates and maintains two nos of 400Kv Transmission lines namely 400kV D/C (Quad) Jaigad-New koyna transmission line & 400kV D/C (Quad) Jaigad-karad transmission line along with 4nos. bays. The 400KV bays are situated at MSETCL New Koyna and Karad Sub-station.

Name of the Line	Line length & Capacity	District	Interface Point
Jaigad-New Koyna Transmission Line	55 km – 400 kV Double Circuit (Quad) Transmission Line	Ratnagiri, Maharashtra	MSETCL Sub-station, New Koyna
Jaigad-Karad Transmission Line	110 km – 400 kV Double Circuit (Quad) Transmission Line	Ratnagiri /Satara, Maharashtra	MSETCL Sub-station, Karad

The Transmission system has power evacuation capacity of about 3,000 MW to 4,000 MW. This Transmission System is presently transmitting/ evacuating power generated at 1200 MW Jaigad Thermal Power Plant to Maharashtra Grid and will also facilitate evacuation of power from other power generation projects planned in the region. This Intra State Transmission system has also augmented transfer of power capacity between New Koyna, a generation node and Karad, a load Centre in Maharashtra.

### Tripping incident

On the evening of 27th sep' 2020, the 400kV Jaigad-Karad D/C Quad. Moose transmission tower at Loc. 150 collapsed due to a massive landslide of the adjacent mountain face, triggered by continuous rains in Sahyadri hills.

The JPTL team along with senior management of JSWEL and invited line contractors has patrolled the collapsed tower. The site is located at the top of the mountain (at about 2000 ft above MSL). The approach road, which is vital to transport the Tower & Construction material as well as T&P, is nearly non-existent as rain-cuts have washed the road at most places. The location of the tower has huge geographical challenge and the restoration of the line using interim arrangement is also not possible due to site condition. Hence, JPTL has decided for permanent restoration of the Transmission line after rebuilding the approach road upto the hill top.

List of EPC contractors present during pre-bid site visit for assessing extent of damage are,

1. M/s. BNC Power Projects limited



2. M/s. Ramelex industries
3. M/s. Swara engineering
4. M/s. Greenmint Power private ltd

**Line details:** 400kV (D/C) Jaigad-Karad Transmission line.

**Location details:** Tower No 150

**Tower type:** DD + 25 (Unequal leg extension)

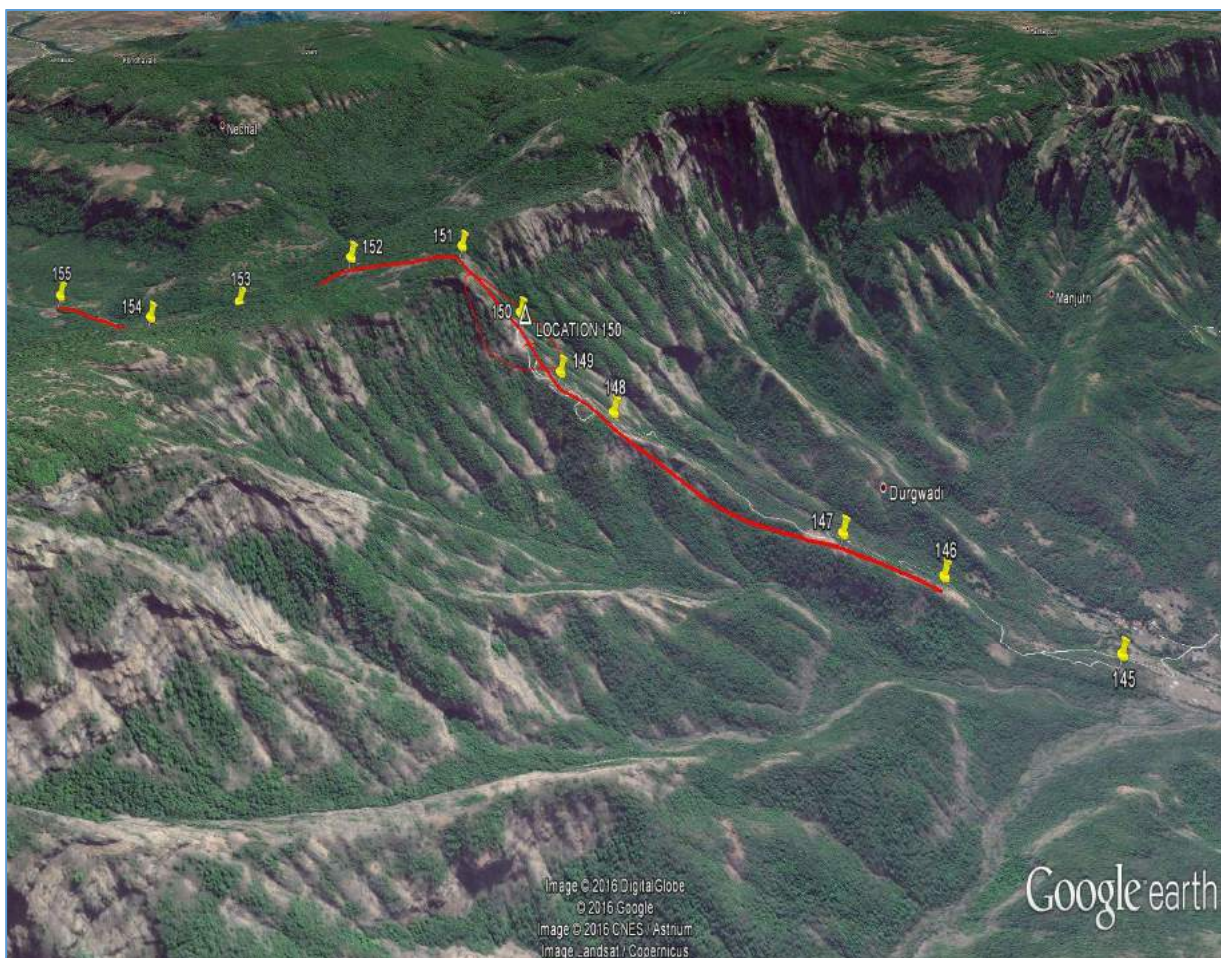
**Site Elevation:** Approx. 2000 ft above Mean Sea Level

**Approach time:** 02:30 Hrs by walk to reach location

**Nearest village:** Manjyotri (Durgawadi)

The tower no 150 is located at sahyadri hills in proximity to Koyna wildlife area. The tower is erected over hill edge benched area with one side deep valley and to another side having sharp hill edges.

#### Arial view of Google Earth



## **Executive Summary**

The tower restoration works of location 150 has been undertaken on war footing basis by team, as it can hamper power evacuation from JSW Jaigad Thermal Power Plant and also impact on power flow scenario in nearby grid stations of MSETCL.

As the tower location spotted on top of sahyadri hills above 2000 Feet above MSL, there were many site constraints other than technical challenges like approach road to access tower, climatic conditions (extended monsoon), Covid-19 Pandemic situation, Right of way as the approach road passes entirely through private land etc.

Looking into site condition & geographical challenges, it was very much essential to commence restoration activities on multiple work fronts.

Accordingly, activities divided & assigned to multiple agencies as,

M/s Kasar construction awarded for making approach road of about 6 km in hill area to mobilize resources like men, material, T&P's and tower material shifting including transportation of tower material from Jaigad store to actual working site of Loc 150.

M/s. Greenmint power pvt ltd has been awarded for tower restoration works including dismantling works of collapsed tower.

Also, JPTL in house team has commenced tower material identification, segregation, stacking works at Jaigad as well as at actual site.

The actual work at site started wef 02<sup>nd</sup> October by mobilizing excavation machinery for making approach road from Manjyotri base camp to site location 150 (approx. dist. 6km).

Approximately 80 no's specialized dedicated crew members were engaged in the restoration works by arranging onsite tenting facility on the hill top. The dedicated excavation machineries (Poclain, JCB, Tractor, Dumper etc) has been mobilized at site in order to avoid any delay/deadlocks due to shortage/unavailability of resources on site.

To expedite the work and to maintain the morale of the workforce, the entire team stayed at the hill top till the completion of the restoration work and were supported by the weekly visit of the Leadership team at the site on rotation basis.

With the concerted efforts of the JPTL team along with their Associates, JSW Energy Team and the relentless support of the Leadership team, the challenging and adventurous project was successfully accomplished by restoring the collapsed transmission tower, in best possible time without compromising on safety on 2nd Jan 2021 and created a history. Subsequent to the clearance from MSLDC, both the circuits were charged on 03rd January 2021.

### List of major tower restoration activities:

- A. Rebuilding of the existing road, suitable for tractor movement
- B. Mobilization of Manpower and T&P's.
- C. Providing Temporary stays at location 151 & 149
- D. De-stringing of conductor & earth wire
- E. Dismantling of tower materials of collapsed tower
- F. Clearing of debris from the tower location.
- G. Handling, loading, transportation, unloading including head loading of all types of construction material
- H. Fabrication of shortage tower parts
- I. Stub strengthening works including tower foundation
- J. Tower Erection of Loc No. 150
- K. Restraining of conductor & earth wire along with all accessories/ hardware fittings between span 149 to 151



Collapsed tower no 150 (Jaigad-Karad line)

# Detailed activity wise report



#### **A. Making of Approach Road:**

To commence any kind of tower line maintenance works, an availability of approach road plays a vital role in order to speedy mobility to the Tower & Construction material as well as T&P. In our case, since tower is located on hill top (2000 ft AMSL), approach time to reach at location by walking through forest area takes around 2:30 hours. The road constructed during construction period was almost non-existent as rain-cuts have washed the road at most places. Hence mobilizing men, material & required T&P's at collapsed tower 150 was one of the crucial & tough task of the restoration works.

**(Images: Non-existent approach road)**



JPTL has engaged M/s.Kasar construction for making approach road till tower location 150, who has also worked during construction phase of the tower. They have deployed machineries like poclain, JCB, dumper as well as tractor on 02<sup>nd</sup> October 2020 and prepared tractorable road up to location 149.



The work was severally affected due to rainfall (extended return monsoon) which started from 08<sup>th</sup> Oct 2020 till 25<sup>th</sup> Oct 2020. As a result, multiple times road repairing need to be undertake in order to commence material shifting.

**(Images: Approach road under construction)**



**(Images: After road repair)**



**Constraints:**

Due to extended return monsoon which started from 08th Oct-20 till 24th Oct-20, an extra efforts puts in repairing of damaged road patches. Road repairing work need to be carried out on repetitive basis from 18<sup>th</sup> Oct until 26<sup>th</sup> Oct-2020.

As, the entire route of 6 km passes through private lands, there were incidents of Right of way issues by resisting contractor workforce while making approach roads by land owners.

The site work progress impacted because of wet road condition.

**Work progress as shared to SLDC :**

Date	Activity (Duration- 24 days)	Remarks
02.10.2020	Mobilised vendor for making approach road.	
03.10.2020	Approach road construction strated, 700 mtr road prepared.	
04.10.2020	Approach road 600 mtr prepared.	
05.10.2020	Approach road construction WIP, 800 mtr road	
06.10.2020	Approach road construction WIP, 350 mtr road (Almost 50% completed)	
07.10.2020	Approach road construction WIP, 350mtr road	
08.10.2020	Approach road construction WIP, 320mtr road near to 148 tower (Rainfall affects site progress & took additional time for repair of road)	<b>Return monsoon started</b>
09.10.2020	Approach road construction WIP, 120 mtr road prepared (On second consecutive day, due to return monsoon heavy rainfall in the region, re-buidling/repair of road affected work progress)	<b>Raining again</b>
	Loc 150 road progress review visit by Section Incharge-JPTL alongwith O&M head, HOC & Civil engg	
10.10.2020	Approach road 150 Mtr prepared between loc 148-149, (Rain continues for 3rd day as well)	<b>Rain continues.</b>
11.10.2020	Approach road 275 Mtr prepared till loc 149 (Rain continues as return monsoon extended in the region, weather forecast reported rain till 17.10.2020)	<b>Still rainy conditon</b>



12.10.2020	Approach road repairing works carried out from origin of approach road since most of the critical road sections washed out in heavy rain	<b>Re-works due to rain</b>
13.10.2020	Approach road preparation work re-started from Location 149, but hampered due to heavy rains since rain starts around 1:00 PM onwards.	<b>Heavy rain</b>
14.10.2020	Zero work progress on all workfronts due to continuous heavy rainfall in the entire region.	<b>No work due to heavy rain</b>
15.10.2020	No work at site due to heavy rains. Also, Approach road prepared till location 149 was again need to be repaired.	<b>Only repair work due to heavy rain</b>
16.10.2020	Due to wet soil condition, site activities could not able to resumed.	<b>No work actiity</b>
17.10.2020	Due to wet soil condition, site activities could not able to resumed on second day as well.	<b>No work actiity</b>
18.10.2020	Approach road preparation work resumed after 4 days affected by return monsoon. Machinery raeched to tower no 150. (road levelling & side dressing shall be carried out by tommorow.) Further, road repairing work will be carried out wherever required as per site condition from tower no 145 to 150 (5 km stretch)	<b>Work resumed for remaining road section</b>
19.10.2020	Approach road repairing work under progress in certain patches (Location 145-147). Return monsoon showering observed in the site surroundings due to which work progress affecting at site.	<b>Road repair resumed in damaged patches</b>
20.10.2020	Approach road repairing work is under progress for span between Location 147-149. However, heavy rain in the night again damaged road.	<b>Repair work continued</b>
21.10.2020	Approach road repairing work is under progress for span between Location 147-149.	<b>Road repairing u/p</b>
	Gang mobilised at site, however no works due to previous night heavy rainfall. Road condition is totally wet.	<b>Heavy rain in night</b>
22.10.2020	Due to wet road condition, material movement on site is hampered.	<b>No work</b>
23.10.2020	Heavy rain hampers site activity, zero work progress at site.	<b>Heavy rain again</b>

24.10.2020	Again, return monsoon badly affects site approach roads. Repairing of approach road need to be done again.	<b>No work</b>
25.10.2020	Due to two days heavy monsoon, approach road get totally wet & muddy in many patches, hence repairing work will be resumed once patches will get dried in next two days.	<b>Waiting for drying of road</b>
26.10.2020	No work at site due to slippery condition of approach road.	
27.10.2020	Work resumed at site for approach road repairing for final time.	<b>3<sup>rd</sup> time road repairing u/p.</b>

(Image: Google earth view of route passes through hills)





## **B. Mobilization of Manpower and T&P's:**

During COVID-19 pandemic, it was very challenging to mobilize gang manpower from Malda (West Bengal) to Chiplun (Maharashtra) during restricted transport facility as stringent guidelines laid by govt. authorities. Gang mobilization through train or bus was not easy as in routine mobilization. Also gang manpower were reluctant to come out during covid situation to travel such a long distance through bus & train. Hence looking into work exigency, the entire crew members were airlifted from Kolkata to Pune & then brought at Chiplun by private transport vehicles.

The Covid-19 rapid antigen test performed on each member from nearby health facility center and after receipt of test reports, the gang shifted to base camp in nearby village Manjotri (Durgawadi). After having deliberations with local gram panchayat & villagers about situation and satisfaction of the villagers, the entire team was mobilized at base camp village Manjyotri.

M/s. Greenmint Power pvt Ltd has mobilized restoration manpower as well as T&P's at site on 21<sup>st</sup> Oct-20, however due to continuous raining, the gang stationed at Manjyotri base camp till 27<sup>th</sup> Oct-20. After rebuilding of approach road, T&P along with manpower shifted on hill top nearby to site location.

**(Images: Manpower and T&P mobilisation)**



(Images: Camping at site and disturbance by rain)



#### Work progress as shared to SLDC :

Date	Activity	Remarks
21.10.2020	Approach road repairing work is under progress for span between Location 147-149.	<b>Gang reach to base camp</b>
	Gang mobilised at site, however no works due to previous night heavy rainfall. Road condition is totally wet.	
22.10.2020	Gang mobilised at site & camping arrangement done at site.	<b>Raining</b>
	Due to wet road condition, material movement on site is hampered.	
23.10.2020	Heavy rain hampers site activity, zero work progress at site.	<b>Raining</b>
24.10.2020	Again, return monsoon badly affects site approach roads. Repairing of approach road need to be done again.	<b>Raining</b>
	First lot of Tower material incl stub material and 25 meter extention members shifted to base camp.	
25.10.2020	Due to two days heavy monsoon, approach road get totally wet & muddy in many patches, hence repairing work will be resumed once patches will get dried in next two days.	<b>Raining</b>
	Consequently, gang mobilisation at working site also get delayed for next two days.	
26.10.2020	No work at site due to slippary condition of approach road.	
27.10.2020	Work resumed at site for approach road repairing	<b>Gang mobilised at location</b>
	Gang mobilised near working site & back stay spot identified for span between 149-150	



### **C. Providing Temporary stays at location 151 & 149:**

Before commencing tower de-stringing & dismantling activities of tower 150, in order to save guard adjacent towers (Tower 149 & 151), a temporary guying arrangement need to be provided at location 149 as well as at location 151.

**(Images: Back stay work under progress)**



The back stay provided to tower no 149 by using 16mm wire rope slings and turn buckle of capacity of 5 T on all 6 cross arms. However, for Tower no 151 which has encountered with hard rock strata from ground level itself, it was really challenging task to provide back stay, as the tower located in reserve forest area. As the tower is located on the edge of hill top, there was no space to provide back stay (see below images). Hence instead of using wire rope support arrangement, a back stay provided by holding rough sag of conductors by using come along clamps and tied up with big girth trees

in the valley which consumed a lot of energy & valuable time for securing tower position.

Further, To initiate tower dismantling works, we had to secure tower no 150 as well, since tower rested at inclined position on hillock along the leg C & D with undue tension on tower members. The circuit 1 side cross arm pieces were pierced in the hill.

**(Image: Locality of Tower 151)**



The back stay activity for all three towers completed on 08<sup>th</sup> November 2020.



**Work progress as shared to SLDC :**

Date	Activity (Duration-12 days)	Remarks
28.10.2020	Back stay material shifting work under progress.	<b>Material and T&amp;P shifted</b>
	<b>Evening time raining in the region hampering site works, also deteriorating road condition every day.</b>	
29.10.2020	Spacer dampers between span of loc 149-150 & 150-151 removed.	<b>De-stringing activity</b>
	Tower material shifting started from base camp to hill top base near tower no 150. (Due to wet road condition, tractor movement is not possible for few days, though looking into urgency, we had engaged Poclains to shift heavy tower parts like stubs, HT leg extension pieces.	<b>Still Wet road condition</b>
30.10.2020	Tower material shifting under progress from base camp to hill top base near tower no 150.	
31.10.2020	Back stay between span 149-150 is under preparation	<b>Work u/p</b>
01.11.2020	Back stay between span 149-150 is under preparation	<b>Work u/p</b>
02.11.2020	Back stay provided between span 149-150	<b>Work u/p</b>
03.11.2020	Jumper conductor & overhead line hardware fittings released from tower no 150.	<b>De-stringing activity</b>
04.11.2020	Back stay arrangement for collapsed tower 150 is under preparation	<b>Work u/p</b>
05.11.2020	Back stay arrangement for collapsed tower 150 is completed	<b>Work u/p</b>
06.11.2020	Back stay arrangement for Tower 151 is under preparation (Reserve forest area)	<b>Work u/p</b>
07.11.2020	Back stay to Tower 151 is under progress (Reserve forest area)	<b>Work u/p</b>
08.11.2020	Back stay to Tower 151 is completed (Reserve forest area)	<b>Work completed</b>

#### **D. De-stringing of conductor & earth wire:**

The conductor spacer dampers in both span 149-150 & 150-151 removed on 29<sup>th</sup> October 2020 during back stay activity. Further, the conductor de-stringing commenced on 09<sup>th</sup> Nov-2020. The jumper conductors & overhead line hardware fittings released from tower no 150. The lefty arrangement prepared & fixed on tower 150.

The de-stringing of conductor started from span 150-151 & then for span 149-150 ensuring proper sequence of de-stringing in order to execute task in a safe manner. The bottom phases of both circuits released followed by middle & top. During de-stringing works, special attention has been given in the valley section of 150-151 to avoid conductor damages.

Due to very risky site condition (prone to landslides), the circuit 1 side all phase conductors were pierced in hill, hence it consumed more time to remove hardware's & released conductor from fittings. The soil strata was of dry fissure hence frequent sliding of boulders hampered activity as well. **(See below images)**





(Images: Release of conductors, removing of spacer dampers)



The de-stringing activity completed on 17<sup>th</sup> November-2020 by releasing earth wires of both circuits from both span (Tower 149-150 & 150-151).

**Work progress as shared to SLDC :**

<b>Date</b>	<b>Activity (Duration- 09 days)</b>	<b>Remarks</b>
29.10.2020	Spacer dampers between span of loc 149-150 & 150-151 removed.	<b>Completed during back stay works</b>
03.11.2020	Jumper conductor & overhead line hardware fittings released from tower no 150.	
09.11.2020	De-stringing work commenced at site	<b>Mobilized T&amp;P</b>
10.11.2020	Wire rope sling lefty preparation work under progress	<b>T&amp;P assembled &amp; positioned on tower</b>
11.11.2020	Circuit 2 side bottom phase conductor released between span 149-150 & 150-151	<b>De-stringing started</b>
12.11.2020	Circuit 1 side bottom phase conductor released between span 149-150 & 150-151	
13.11.2020	Circuit 2 side Middle phase conductor released between span 149-150 & 150-151	
14.11.2020	Circuit 1 side Middle phase conductor released between span 149-150 & 150-151	
15.11.2020	Circuit 1 side Top conductor release between span 149-150 & 150-151	
16.11.2020	Circuit 2 side Top conductor release between span 149-150 & 150-151	
17.11.2020	Earth wire for both circuit released between span 149-150 & 150-151	<b>Works completed</b>

#### **E. Dismantling of tower materials of collapsed tower:**

Tower dismantling was one of the most challenging task of the tower restoration works, as there was undue tension on lattice tower structure. The collapsed tower properly guyed by means of polypropylene (PP) ropes of 20/22 mm.

Considering hilly terrain & design tower spotting data, both the towers 150 & 151 are additionally strengthened above cross arm level by increasing section thickness and adding few members. The availability of strengthening and additional strengthening tower members in tower inventory was very limited hence need to be retrieved from collapsed tower as much as possible. Hence up to bottom cross arm level, an identified tower members has been dismantled by means of removing nut bolts.

Below bottom cross arm level, all tower parts were dismantled by means of gas cutting method. As the majority tower members buckled/bend, there was huge tension observed while gas cutting. Hence the job was carried out very cautiously to avoid any accidents during cutting of members.

The specialized gas cutter team engaged for tower dismantling works in addition to tower dismantling gang manpower to expedite works. Meanwhile, segregation of re-usable tower parts of dismantled tower also carried out at the site.

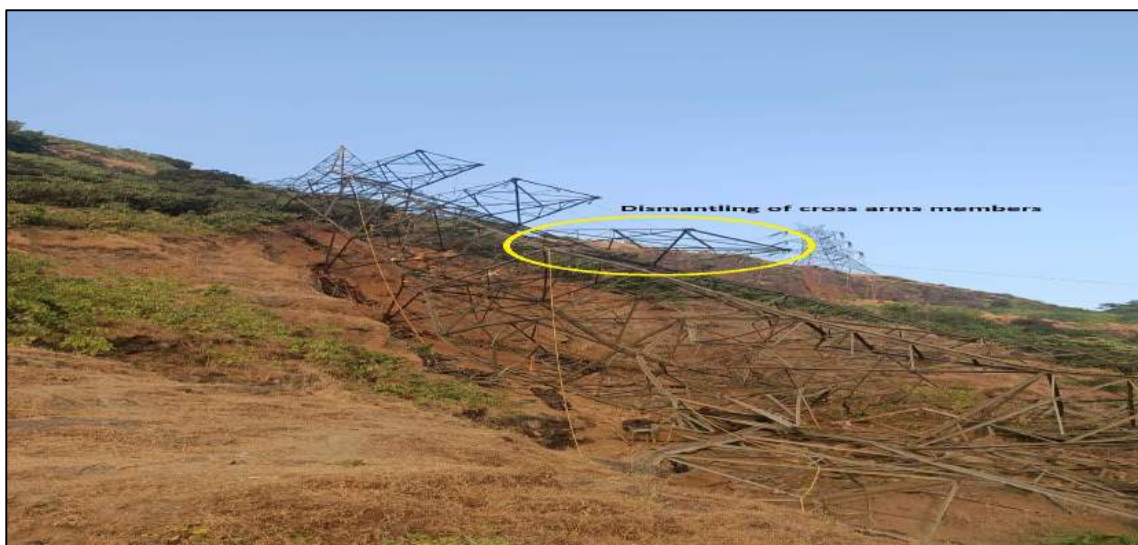
Site constraints:

Very limited working and storage space for releasing/ stacking of tower parts.

X-arms of ckt-I side, which pierced in hillock takes longer time to dismantled.

Dismantled tower parts need to be cleared from site for further dismantling of members.

The dismantling works started on 18.11.2020 and finished on 05.12.2020.





(Images: Tower dismantling by gas cutting)







**Work progress as shared to SLDC :**

<b>Date</b>	<b>Activity (Duration-18 days)</b>	<b>Remarks</b>
18.11.2020	Tower dismantling preparation work started.	<b>Work started</b>
19.11.2020	Tower dismantling work under progress. (Top Cross arm from ckt-II side dismantled)	<b>Complete section dis-assembly by Nut-bolting</b>
20.11.2020	Tower dismantling work under progress. (Middle Cross arm from ckt-II side dismantled)	<b>Complete section dis-assembly by Nut-bolting</b>
21.11.2020	Tower dismantling work under progress. (Bottom Cross arm from ckt-II side & Peak section dismantled.	<b>Complete section dis-assembly by Nut-bolting</b>
22.11.2020	Tower dismantling work under progress. (Top Cross arm ckt-I side, <b>which got stuck up in hill section dismantled</b> )	<b>Nut-bolting</b>
23.11.2020	Tower dismantling work under progress. (Middle Cross arm ckt-I side, <b>which got stuck up in hill section dismantled</b> )	<b>Nut-bolting</b>
24.11.2020	Tower dismantling work under progress. (Basic body of Top & Middle cross arm dismantled)	<b>Nut-bolting</b>
25.11.2020	Tower dismantling work under progress. (Basic body of Middle & Bottom cross arm dismantled)	<b>Nut-bolting</b>
26.11.2020	Tower dismantling work under progress. (Basic body of Bottom cross arm dismantled), Reusable tower members of additional strengthening need to be dismantled carefully.	<b>Nut-bolting</b>
27.11.2020	Dismantling below cross arm section started by means of gas cutter. Shifting of non-usable scrap material started however due to high gradient of road, shifting gets delayed.	<b>Gas cutting</b>
28.11.2020	Tower dismantling work under progress. (Basic body of Part-2 under progress), Reusable tower material segregated. On site fabrication of shortage tower material started	<b>Gas cutting</b>
29.11.2020	Tower dismantling work under progress. (Basic body of Part-2 dismantling work completed),	<b>Gas cutting</b>
	Reusable tower material segregation work under progress as well as On site fabrication of shortage tower material started	<b>Parallel activity</b>



	Shifting of scrap material from loc 150 to base camp is under progress by partial head loading & partially by dumper.	
30.11.2020	Tower dismantling work under progress. (Basic body of Part-1 under progress),	<b>Gas cutting</b>
	Reusable tower material segregation work under progress as well as On site fabrication of shortage tower material started	<b>Shifting &amp; segregation works</b>
	Shifting of scrap material from loc 150 to base camp is under progress by partial head loading & partially by dumper.	
01.12.2020	Tower dismantling work under progress. (Basic body of Part-1 completed & 0 Meter section dismantling under progress)	<b>Gas cutting</b>
	Reusable tower material segregation work under progress as well as On site fabrication of shortage tower material started	<b>Shifting &amp; segregation works</b>
	Shifting of scrap material from loc 150 to base camp is under progress by partial head loading & partially by dumper.	
02.12.2020	Tower dismantling work under progress. ( 0 Meter section dismantling work completed & +9 meter extension section work under progress)	<b>Gas cutting</b>
	Reusable tower material segregation work under progress as well as On site fabrication of shortage tower material started	<b>Shifting &amp; segregation works</b>
	Shifting of scrap material from loc 150 to base camp is under progress by partial head loading & partially by dumper.	
03.12.2020	Tower dismantling work under progress. ( 9 Meter section dismantling work completed & +16 meter extension (Bottom part of +25 M) section work under progress)	<b>Gas cutting</b>
	Reusable tower material segregation work under progress as well as On site fabrication of shortage tower material started	<b>Shifting &amp; segregation works</b>
	Shifting of scrap material from loc 150 to base camp is under progress by partial head loading & partially by dumper.	
04.12.2020	Tower dismantling work completed (16 Meter section completed)	<b>Gas cutting</b>
	Reusable tower material segregation work under progress as well as On site fabrication of shortage tower material started	<b>Shifting &amp; segregation works</b>
	Shifting of scrap material from loc 150 to base camp is under progress by partial head loading & partially by dumper.	
05.12.2020	Shifting of dismantled material below tower base area under progress & retrieval of good leg members done.	<b>Shifting &amp; segregation works</b>
	Reusable tower material segregation work under progress as well as On site fabrication of shortage tower material started	
	Shifting of scrap material from loc 150 to base camp is under progress by partial head loading & partially by dumper.	

06.12.2020	Shifting of dismantled material below tower base area work completed	<b>Shifting &amp; segregation work</b>
	Reusable tower material segregation work under progress as well as On site fabrication of shortage tower material started	
	Shifting of scrap material from loc 150 by head loading is under progress	
	Debris removal work started by using two poclain, one dumper & one JCB. In the meantime, tower members below soil debris also been cleared by gas cutter	<b>Gas cutting completed</b>

#### **F. Clearing of debris from the tower location:**

As the tower collapsed due to huge amount of landslide from hillock portion along leg C & D, a huge amount (more than 5000 cum) of debris accumulated inside the tower base. The accumulated earthen material including heavy boulders required to get cleared from tower foundation area to commence further activities like stub repairing/strengthening works etc.

As geographical conditions to access tower location is very extreme, as of now only poclain machineries could able to reach at working site. However, to commence debris removal works, an additional excavator machineries need to be deployed at site like JCB, dumper etc. Since the road gradient for last 100meter section was very stiff, JCB & dumpers have been shifted to the tower 150 by taking support of two poclains (Push-pull).

**(Images: Mobilizing machineries with extra support)**



After successful mobilization of excavation machineries, debris removal work started on 06<sup>th</sup> December. The work undertaken in night also to clear huge amount of debris from tower base area at earliest.



(Images: Debris removal works)





(Images: Late night works)



The debris removal works finished on 10<sup>th</sup> December 2020 with all coordinated efforts.

**Work progress as shared to SLDC :**

<b>Date</b>	<b>Activity (Duration-05 days)</b>	<b>Remarks</b>
06.12.2020	Debris removal work started by using two poclain, one dumper & one JCB. Parallely, tower members below soil debris also been cleared by gas cutter	<b>Work started</b>
07.12.2020	Debris removal work started by using two poclain, one dumper & one JCB. Parallely, tower members below soil debris also been cleared by gas cutter	
	Due to space constraints at location 150, every activity need to be plan in series. Eg. We have to wait for shifting of tower erection material till stub repairing work get completed likewise unless debris removal work get over, it is difficult to commence stub repair/strengthening works at site to avoid further damages to stub.	<b>Constraints</b>
	Shifting of scrap material from loc 150 by head loading is under progress	<b>Parallel activity</b>
08.12.2020	Debris removal works under progress by using two poclain, one dumper & one JCB. Meanwhile, tower members below soil debris also been cleared by gas cutter	
	Repair sleeves crimped on damaged conductor strands	<b>Parallel activity</b>
	Shifting of scrap material from loc 150 by head loading is under progress	
09.12.2020	Debris removal works under progress by using two poclain, one dumper & one JCB. Meanwhile , tower members below soil debris (connected with Leg C) also been cleared by gas cutter	
	Tower leg A & B exposed, found Leg A required stub repairing works however Leg B found in good condition.	<b>Parallel activity</b>
	Shifting of scrap material from loc 150 by head loading is under progress	
10.12.2020	Stub repairing works started for damaged stub (leg- A), Stub cutting done for bend portion. On site drilling on existing stub & new stub fabrication works started	<b>Parallel activity</b>
	Debris removal works completed for Leg C & D (Towards hill area).	<b>Work completed</b>

**G. Handling, loading, transportation, unloading including head loading of all types of construction material: (Parallel activity)**

Due to site terrain condition, the tower material shifting task was carried out in different phases such as,

- Tower material identification, segregation, loading at JPTL store (Jaigad)
- Transportation & unloading of tower material from Jaigad store to Manjyotri base camp
- Material loading, transportation from Manjyotri base camp to identified area near to tower no 149, unloading & segregation
- Material loading by means of head loading & poclains from tower no 149 to tower 150, section wise segregation as per GA drawings.

- a) Tower material identification, segregation, loading at JPTL store (Jaigad):  
The JPTL team immediately starts spare material identification works from 3<sup>rd</sup> Oct 2020 at Jaigad stores. About 80 MT tower material including line hardware's, T&P's etc identified, segregated as per BOQ & transported to Manjyoti base camp. The work was hampered severally due to return monsoon, but dedicated team efforts of JPTL team resulted into shifting of required tower material well in advance to commence tower restoration works.

**(Images: Tower material identification, segregation, loading @ JPTL store)**





b) Transportation & unloading of tower material from Jaigad store to Manjyotri base camp:

All segregated tower material transported from Jaigad store to Manjyotri through trailers, dumpers & hydra etc by M/s. Kasar construction in safe way.

**(Images: Transportation arrangement from Jaigad Store)**



**(Images: Material unloading at Manjyotri base camp)**



*Material transported to Manjotri base camp which is 125 km away from Jaigad store. The road route is of single lane in most the sections with hill & curvy road.*



- c) Material loading, transportation from Manjyotri base camp to identified area near to tower no 149, unloading & segregation:

As tower no 150 has very limited storage space around the tower base area, the material has to be stacked in the space available between tower no 149 to 150. Their also platforms for material stacking had been prepared after making of approach road.

The crucial & risky task among the restoration activity was material shifting from base camp to near tower 149. Due to predominant return monsoon condition in the region, the approach road was severely damaged & repaired repeatedly by poclains. Initially, material shifting was planned by using tractor trolley's, however as the road condition was very slippery & muddy for a prolonged time, shifting commenced through poclains. Fortunately after few days, as the approach road gets dry, we have engaged dumpers for the shifting works & hence we are able to finish material shifting without delaying ongoing restoration activity.

**(Images: Material shifting from base cam to loc 149)**





(Images: Difficult to transport by tractor)





- d) Material loading by means of head loading & poclains from tower no 149 to tower 150:

The most crucial part of restoration is material shifting from tower 149 to tower 150. As the last 100 m road section for loc 150 has very high gradient, material shifting even by engaging poclains also seems to be very difficult. At one instance, poclains was turn upside down and about to collapse in deep valley but somehow operator has managed to control it by front bucket while shifting of scrap material. So, shifting in the specific section carried out in very cautious manner by further reducing stiff gradient.

Due to space constraints at location 150, every activity executed in series. ie. We waited for shifting of tower erection material till stub repairing work get completed. Due to the high gradient of road access to tower location, JCB & 2 nos Poclain deployed at site for tower material shifting in addition to head loading of heavy tower leg members. Further, as there was a very limited storage space at location 150, Section Wise shifting of Tower material from location 149 to actual working site undertaken by means of Poclain as well as head loading wherever required.



#### H. Fabrication of shortage tower parts: (Parallel activity)

The configuration of tower 150 is DD+ 25 with unequal leg extension having +22Meter leg extension at C leg. Spares for +22 Meter leg extension section was unavailable at JPTL store, as the tower 150 is the only tower with +22M leg extension out of complete 451 towers of both 400kV Jaigad-karad as well as Jaigad-New koyna transmission lines.

Also Tower no 150 & 151 provided with additional strengthening members in addition to cross arm strengthening members due to design parameters. The spares availability of those additional strengthening members including cleats & plates were limited at the store. Hence we have reached to tower fabricators available in nearby area in western Maharashtra namely,

1. M/s. Shreem Electric Ltd- Jaysinghpur
2. M/s. Matrix Grating Pvt Ltd- Miraj

Out of above two listed suppliers, M/s. Shreem electric regretted for timely delivery of required tower parts (around 2-2.5 months), considering variety of HT & MS sections, section weights and unavailability of raw material.

After rigorous follow-up's & multiple requests, the other supplier M/s.Matrix grating pvt ltd agreed to supply required tower material considering nature of urgency and delivered shortage tower members by 23<sup>rd</sup> November 2020.









## I. Stub strengthening works including tower foundation:

During visual inspection before excavating all tower legs, it was assessed to repair all stubs by providing stub joints or foundation re-casting subjected to extent of damages. However, after opening of all 4 legs it was found that only Leg-A need to strengthen. Accordingly, stub strengthening work carried out on Leg-A.

Cement concrete of chimney broken up to 1.5 meter (till bended portion) from stub top level. An existing damaged section of stub cut for about 1.5 meter & jointed by new stub with similar dimension. Stub setting checks have been completed by surveyor 9by confirming stub levels, diagonal & back to back measurements of stubs)

After confirmation on dimensional checks, old & new stub member's nut bolted. Zinc rich galvanization coating applied on whole surface of stub up to 1.5 meter.

Concerting of M50 grade of existing chimney size completed in all respect.

(Images: Stub strengthening :)



(Leg-C)



(Leg-B)



(Leg-D)



(Leg-A)





Onsite fabrication works carried out during stub strengthening by using magnetic drill machine, cutting & grinding machine etc.

**Work progress as shared to SLDC :**

Date	Activity (Duration-03 days)	Remarks
09.12.2020	Tower leg A & B exposed, found Leg A required stub repairing works however Leg B found in good condition.	<b>Work started</b>
10.12.2020	Stub repairing works started for damaged stub (leg- A), Stub cutting done for bend portion. On site drilling on existing stub & new stub fabrication works started	<b>Fabrication works</b>
11.12.2020	Stub jointing works completed.	<b>Work completed</b>
	Stub setting & tower dimensions checked by surveyor.	
	Concreting works for Leg A completed	
	Tower erection material incl T&P shifting under progress to commence erection activity.	Parallel activity

#### **J. Tower Erection works:**

The tower erection activity (78MT) commenced on 12<sup>th</sup> December by mobilizing required T&P at location. Two nos of power winch machines (5T capacity) deployed for lifting of tower assembly.

Due to challenging terrain of sahyadri hills, we have very limited working space for tower erection activity. Ground assembly of main leg extension members, K-frames, cages etc prepared inside the tower base area and section wise material stacking & segregation carried out alongside of leg A-B (exposed towards deep valley of about 2000ft).

We have prepared a temporary platform by filling of earthen material to stack erection material. Lifting/erection of assembled sections has been carried out from inside area of tower body, not from outside of tower body as in conventional method due to space constraints along the leg B-C, C-D & A-D.



(Image: Showing space constraints at the tower 150)

The tower erection activity completed by collaborative efforts of M/s. Greenmint, M/s. Kasar construction & JPTL team.

Material shifted by poclains from tower 149 to 150 as per section wise requirement of erection gang, as we have limited stacking area available along the Leg A & B.



The shifted tower material then segregated by JPTL team as per drawings and handed over to the erection gang.

(Images of Tower erection works)



(Winch Machines)



(Material segregation)

(Ground assembly)

In the meantime, scrap generated from tower has been shifted to clear space occupied by scrap material nearby tower location. Further onsite tower fabrication set up fixed for minor fabrication on tower parts as per site requirement.





(Images: Cross arm assembly at Ground)



**Work progress as shared to SLDC :**

<b>Date</b>	<b>Activity (Duration-16 days)</b>	<b>Remarks</b>
11.12.2020	Tower erection material incl T&P shifting under progress to commence erection activity.	<b>Work starts</b>
12.12.2020	Tower erection works commenced by preparing ground assembly of K-frame connecting between leg C & D.	<b>+25/+22 M ULE level</b>
	Leg D of + 25 Meter unequal leg extension (16 M bottom part) erected as well as Leg C of +22 Meter unequal leg extension (13 M Bottom part) erected.	
	<i><b>As we have very limited storage space at location 150, Sectionwise shifting of Tower material from location 149 to actual working site under progress by means of Poclain as well as headloading.</b></i>	
	<i><b>Also due to challenging terrain of sahyadri hills, we have very limited working space for tower erection activity. Eg. Ground assembly of main leg extension members, K-frames need to done within the tower base area and material stacking &amp; segregation being carried out alongside of leg A-B (which are exposed towards deep valley of about 2000ft)by preparing temporary platform by filling of earthen material. Also lifting/erection of assembled sections has to be done inside of tower body, not from outside of tower body as in conventional method due to no space along the leg B-C, C-D &amp; A-D.</b></i>	
13.12.2020	K-frame (+16M bottom part) fixed between leg C- D. Also K-frame K-frame of (+16M bottom part) ground assembly prepared for leg B- C. +16 M tower leg members assembled at ground of leg A & B.	<b>+25/+22 M ULE level</b>
	Tower material of section +9 Meter body extension shifted near tower 150.	
14.12.2020	K-frame (+16M bottom part) fixed between leg B- C. Also K-frame (+16M bottom part) ground assembly prepared for leg A- D, Hip bracings for leg C & D assembled at ground.	<b>+25/+22 M ULE level</b>
	Tower material cleat & plates of section +9 Meter & +0 Meter body extension shifted near tower 150.	
15.12.2020	K-frame assembly (+16M bottom part) fixed between leg A-D. Also, Hip bracings for leg C & D fixed.	<b>+25/+22 M ULE level</b>
	K-frame (+16M bottom part) ground assembly prepared for leg A-B. +9 Meter leg members assembled at ground of leg A, B & C.	
	Shifting of scrap material from loc 150 by using poclain under progress	
16.12.2020	K-frame (+16M bottom part) fixed between leg A-B. +9 Meter leg members erected for leg A, B & C.	<b>+09 M BE level</b>



	Hip bracings for leg A & B assembled at ground, also K-frame ground assembly (+9 Meter part) prepared for leg B-C & C-D.	
	Shifting of scrap material from loc 150 by using poclain under progress as well new tower material for +0 Meter leg members shifted to tower 150.	
17.12.2020	Hip bracings for leg A & B fixed., also K-frame (+9 Meter part) erected for leg B-C & C-D.	<b>+09 M BE level</b>
	Tower material of section +0 Meter body extension shifted near tower 150.	
	Ground assembly for K frames (+9 Meter part) of leg A-B & A-D done. +0 Mtr leg B assembled at ground.	
18.12.2020	K-frame (+9 Meter part) erected for leg A-B & A-D. Also, +0 Mtr leg B erection completed	<b>+09 M BE level</b>
	Ground assembly for +0 Mtr k-frames prepared. And leg A,C & D assembled at ground.	
	Basic body material shifting under progress.	
19.12.2020	+0 Mtr level all 4 legs erected. All 4 legs K- frames also erected.	<b>+0 M BE level</b>
	Ground assembly for basic body legs done as well as basic body part-I bracings assembled at ground.	
	Basic body material shifting under progress.	
20.12.2020	Basic body all 4 legs erected. Basic body part-I bracings for leg C-D & B-C erected as well.	<b>Basic Body level (Part-I &amp; II)</b>
	Ground assembly prepared of bracings for leg A-B & A-D. (Part-I)	
	Ground assembly done for Part-II all legs & all bracings assembled.	
	Basic body material shifting under progress.	
	Scrap material shifting under progress.	
21.12.2020	Basic body Part-I bracings erected for leg A-B & A-D.	<b>Basic Body level (Part-I &amp; II)</b>
	Basic body Part-II all legs erected & also all bracings erected for Part-II..	
	Bottom cross arm level leg A assembled & erected.	
	Ground assembly for hip bracings of basic body Part-I & II prepared.	
	Basic body material shifting under progress.	
22.12.2020	Bottom cross arm level leg C & D assembled & erected.	<b>Bottom X-arm cage</b>
	Hip bracings for basic body Part I & II fixed.	<b>Common plan bracing (CMB) fixed</b>
	Common plan bracings & hip bracings for +0 Mtr level assembled at ground and erected.	
	Also, Hip bracings & common plan bracings at +9 Mtr level assembled & erected for leg B & C	

	Ground assmebly prepared for common plan bracings (25 Mtr extension) of leg A.	
	Basic body (cross arm section) material shifting under progress.	
23.12.2020	Hip bracings for +9 mtr level erected for leg A & D	<b>(CMB) fixed</b>
	Common plan bracings (25 Mtr extension) of leg A, B, C & D fixed.	
	Basic body (cross arm section) material shifting under progress.	
	Ground assembly of bottom cross arm level cage prepared.	
24.12.2020	Bottom cross aem cage erected and 3 legs above bottom cross arm level erected.	<b>Bottom X-arm cage fixing</b>
	Cage bracings of B-C leg above bottom cross arm level erected.	
	Ground assembly prepared for middle & top cross arm cage	
25.12.2020	Above bottom cross arm cage erected for A-B, C-D & A-D leg.	<b>Middle X-arm cage fixing</b>
	Middle cross arm all 4 cages fixed and also Top cross arm all cages fixed.	
	Ground assembly of ckt-2 side Top cross arm (Box type) prepared.	
26.12.2020	Peak & ckt-2 side Middle & bottom cross arm assembled at ground.	
	Peak & ckt 2 side Top cross arm erected.	<b>Peak &amp; Top Xarm fixed</b>
	Ground assembly for Ckt 1 side cross arms started & erected as well.	
	Tower tightening work started.	
27.12.2020	Ckt 2 side Middle & bottom cross arm erected.	<b>Box X-Arm</b>
	Tower tightening work & fixing of shortage members under progress	
	center diagonal members for peak & top cross arm cage section fixed.	
	Ground assembly of polymer insulator alongwith hardware fittings done.	
	Insulator hoisting for ckt-1 side completed.	<b>Insulator hoisting u/p</b>

**K. Restraining of conductor & earth wire along with all accessories/ hardware fittings between span 149 to 151:**

The stringing activity taken up immediately upon completion of tower tightening works on 28<sup>th</sup> December 2020. Four set of lefty fixed for stringing in the span of location 149-150 & 150-151 (both circuits). Re-positioning of conductors on ground carried out before final sagging, as circuit 2 side conductors (span 150-151) shifted towards hillside (towards circuit 1) during back stay.

All conductors of circuit 2 (between span 150-151) brought below circuit 2 by pulling through marking lead & then fixed with lefty for stringing. This activity took more time to re-arrange conductors in all phases of circuit 2 side before final sagging works.

A proper stringing sequence has been followed while final sagging of conductors & earth wires. The rough sagging done for conductors for span 149-150 to ensure back stay for tower 150, before final sagging of span 150-151, as the tower 151 is on higher elevation than tower 150 & 149.

**(Images: stringing works)**







**Work progress as shared to SLDC :**

<b>Date</b>	<b>Activity (Duration-6 days)</b>	<b>Remarks</b>
28.12.2020	Insulator hoisting for ckt-2 side completed.	<b>T&amp;P Prepared</b>
	Tower tightness work under progress	
	Center diagonal members for middle & bottom cross arm sections are fixed.	
	stringing T&P ground assembly completed & 3 lefty fixed with top cross arm	
	Conductor identification & rough sagging works commenced for ckt - 2 side top phase between span 149-150	<b>Work started</b>
29.12.2020	6 conductors of Top phase final sag completed + 4 earthwire final sag completed for span between tower no 149-150-151.	<b>Top phase + Earth wire</b>
30.12.2020	Final sag of 10 conductors completed for span between tower no 149-150-151.. (Top phase)	<b>Top phase</b>
31.12.2020	Final sag of 14 conductors completed for span between tower no 149-150-151.. (Middle phase)	<b>Middle phase</b>
01.01.2021	Final sag of 18 conductors completed for span between tower no 149-150-151.. (Bottom phase)	<b>Bottom phase</b>
	Jumpering arrangement under progress	
02.01.2021	Jumpering works for both circuits completed & spacer dampers in both span (149-150-151) fixed.	<b>Jumpering &amp; spacers fixing</b>
	Line charging clearance given to SLDC.	

The line was finally charged successfully on January 3<sup>rd</sup> ,2021.



# Thank You!!!

## **Annexure A: Rainfall data from Tehsil office-Chiplun**



1/1/2020	03	03	08	92	08	03	92	06	04	43	4.00	3022.32
2/1/2020	08	02	08	00	00	03	08	06	08	30	3.33	3023.83
3/1/2020	33	38	20	9E	42	02	92	34	09	229	28.33	3030.20
4/1/2020	9E	29	00	09	00	00	08	24	00	60	6.66	3040.66
5/1/2020	02	07	02	04	20	29	08	70	23	700	77.77	3047.77
6/1/2020	08	04	93	02	94	93	04	99	02	62	2.88	3060.68
7/1/2020	92	9E	94	60	3E	94	2E	22	06	204	30.66	3090.49
8/1/2020	00	00	00	00	00	00	00	00	09	09	0.99	3090.59
9/1/2020	49	84	34	90	08	20	22	24	98	268	30.88	3097.08
10/1/2020	8E	48	22	04	20	06	93	42	04	232	26.88	3096.30
11/1/2020	09	03	03	00	08	04	98	06	03	80	8.88	3067.88
12/1/2020	08	04	08	06	08	90	08	92	9E	60	6.66	3066.66
13/1/2020	22	24	39	22	4E	82	32	83	88	332	38.22	3076.48
14/1/2020	0E	02	04	20	99	93	24	20	9E	932	94.33	3037.82
15/1/2020	9E	94	93	92	92	0E	0	90	04	8E	99.00	3078.24
16/1/2020	00	00	02	04	00	03	00	02	04	28	2.88	3079.32
17/1/2020	00	00	02	04	00	03	00	02	04	28	2.88	3079.32
18/1/2020	9E	98	26	92	20	8	03	90	4	928	930.66	3090.33
19/1/2020	23	29	02	02	03	02	94	26	08	908	99.66	3076.72
20/1/2020	02	09	03	02	06	02	04	99	0E	48	4.00	3066.72
21/1/2020	9	9	2	3	8	9	3	2	2	94	9.66	3077
22/1/2020	42	40	38	22	92	08	22	42	04	262	30.22	3088.99
23/1/2020	02	06	08	04	08	08	09	04	04	32	8.22	3095.33
24/1/2020	94	96	93	24	94	03	30	94	29	944	96.22	3030.44
25/1/2020	32	80	48	30	24	89	42	44	84	346	38.99	3067.88
26/1/2020	6	E	6	9	90	3	90	2	4	40	4.44	3079.32



TAMASILONG

## **Annexure B: News cuttings on extended return monsoon**

# लांज्यात ढगफुटी

## जिल्ह्यात परतीच्या पावसाचा धुमाकूळ



लांज्यात ढगफुटीमुळे जलमय झालेला परिसर

**रत्नागिरी :-** परतीच्या पावसाने रत्नागिरीला झोडपून काढले आहे. शनिवारी मध्य रात्रीपासून सुरू झालेल्या पावसाने शेतीचे मोठ्या प्रमाणात नुकसान झाले आहे. शेतकऱ्यांच्या हाताशी आलेले पीक वाया गेले आहे. तर सध्याचे वातावरण दोन दिवस वातावरण असेच राहणार असून, समुद्रही खवळलेला असेल. यामुळे मच्छिमारांनी समुद्रात मासेमारीसाठी जाऊ नये, असा इशारा हवामान खात्याने दिला आहे.

शनिवारी दुपारपासून जिल्ह्यातील काही ठिकाणी जोरदार वाऱ्यासह पावसाला सुरुवात झाली. रविवारी पहाटेही जिल्ह्याच्या अनेक भागात ढगांच्या गडगडाटासह जोरदार पाऊस कोसळला. संपूर्ण दिवसभर वातावरण पावसाळी होते. रविवारी दुपारनंतर रत्नागिरी शहर व परिसरात मुसळधार पावसाला सुरुवात झाली होती.

पावसामुळे कापणी योग्य झालेले भातपिकात पुन्हा पाणी साचले आहे. गेले चार दिवस शेतकरी वर्ग भाताची कापणी करून दे.... ▶ वृत्त ७ वर

### लांज्यात धुवांधार पाऊस

लांजा: लांजात आज ढग फूटी होऊन झालेल्या मुसळधार पावसाने शहरासह ग्रामीण भागात नागरिकांची त्रेधातिरपीट झाली. तळवडे, वेरळ, आसगे, केळवे गावात भातशेती मोठ्या प्रमाणात नुकसान झाले आहे. शहरात कुक्कुटपालन, परिसरात पुराचे पाणी धुलं होतं.

रविवारी दिवसभर लांजा तालुक्यात मुसळधार पाऊस पडला. भात कापणी केलेल्या शेतकऱ्यांना याचा मोठा फटका बसला आहे. तयार झालेली भात शेती पूर्णतः आढवी झाली आहे. तळवडे, आसगे, कणगावली, वेरळ, केळवे, खेरवसे गावात भात शेती पाण्यात बुडाली आहे. लांजा शहरात ही विद्रुल नगर, कुक्कुटपालन, वैभव वसाहत परिसरात पाणी तुंबले होते. अनेक वाहने अडकून होती. काजळी नदीला ही पूर आला होता. पावसामुळे हाती आलेले भात पीक मोठ्या प्रमाणावर नुकसान झाले आहे. या नुकसानीची महसुल विभागाने पाहणी करण्याची मागणी सरपंच संघटना अध्यक्ष संजय पाटीळे यांनी केली आहे.

### जिल्ह्यात परतीच्या पावसाचा धुमाकूळ

सुकवण्याच्या कामात व्यस्त होता. आणखी दोन दिवस पावसाळी वातावरणाचा इशारा हवामान खात्याने दिला आहे. कोकण, पश्चिम महाराष्ट्र, विदर्भ, मराठवाड्यातही पावसाने चांगलाच झटका दिला. शेतकऱ्यांना भात कापणीसाठी आणखी काही दिवस थांबावे लागणार आहे. मासेमारी जोमात सुरू असताना जोरदार पावसामुळे मासेमारीला काही प्रमाणात ब्रेक लागला आहे. वातावरणातील बदलाचा फटका मासेमारीला बसला आहे. समुद्र खवळल्याने मासेमारीसाठी जाऊ नये असा इशारा हवामान खात्याने दिला आहे.



## यावर्षीहि बळीराजावर 'अस्मानी' संकट



परतीच्या पावसाने आडवी झालेली भातशेती.

**चिपळूण :-** एकीकडे कोरोना महामारीमुळे आर्थिक कोंडीत सापडलेला बळीराजा परतीच्या पावसामुळेही अडचणीत आला आहे. काबाडकष्ट केलेल्या भातशेतीचा संसाराला हातभार लागेल या आशेवर असतानाच पावसाने भातशेती आडवी

करण्यास सुरुवात केली आहे. त्यामुळे तालुक्यातील अनेक गावांमध्ये कापणीयोग्य तयार पिकांची नासधूस होऊ लागली असून शेतकरी राजा हवालदिल झाला आहे. परतीच्या पावसाचा जोर यापुढेही काही दिवस कायम राहणार असल्याने गतवर्षीप्रमाणे

## चिपळूणात परतीच्या पावसाचा धोका, भातशेती आडवी

यावर्षीही शेतकऱ्यांना अस्मानी संकटाला सामोरे जावे लागण्याची शक्यता वर्तवली जात आहे.

भातशेती हे चिपळूण तालुक्यातीलही प्रमुख पीक मानले जाते. तालुक्यात १० हजार ३१८.४० हेक्टर क्षेत्र भातपीक लागवडीखाली आहे. त्यापैकी यावर्षी १० हजार २४२.६६ हेक्टर क्षेत्रावर भातशेती करण्यात आली आहे. गतवर्षी परतीच्या पावसाने भातशेतीचे प्रचंड नुकसान केले होते. शेकडो हेक्टर क्षेत्र बाधित झाले होते. तर काही ठिकाणी कापणीयोग्य भात पीक शेतात आडवी झाल्याने आणि कापलेले भात शेतातच भिजल्याने या भातपिकांना नवीन अंकुर आल्याची गंभीर परिस्थिती निर्माण झाली होती. महसूल प्रशासनासह

..... वृत्त ७ वर

## यावर्षीहि बळीराजावर 'अस्मानी' संकट

कृषी विभागाने पंचनामे करून काहीअंशी शेतकऱ्यांना दिलासा दिला होता. मात्र शेती करण्यासाठी येणारा खर्च आणि मिळालेली नुकसान भरपाई यामध्ये मोठी तफावत असल्याने तालुक्यातील नुकसानग्रस्त शेतकरी अडचणीत सापडला होता. तालुक्यात काही दिवसांपासून तयार भात पिकांच्या कापणीचा हंगाम सुरू झाला आहे. त्यातच परतीच्या पावसाने हजेरी लावत झोडपण्यास सुरुवात केल्याने शेतकऱ्यांमध्ये चिंतेचे वातावरण आहे. कोरोनामुळे अगोदरच आर्थिक गणिते बिघडलेली आहेत. त्यातच परतीचा पाऊस तयार भातपिके आडवी करू लागल्याने बळीराजा विधा मनस्थितीत सापडला आहे.

### मोरवणे पाठोपाठ कोंढेतील भातशेतीतही उरला पेंढा

पावसामुळे भातपिकावर पीस रोगाच्या प्रादुर्भावामुळे मोरवणे बुद्रुक येथे लागवड केलेल्या भातशेतात केवळ पेंढा उरल्याची तक्रार नुकसानग्रस्त शेतकऱ्यांनी कृषी विभागासह तहसिलदारांकडे केली होती. याशिवाय मोरवणे खुर्द गावातीलही सुमारे ५० हेक्टर क्षेत्र त्याचपद्धतीने बाधित झाल्याचे समोर येत आहे. यातच कोंढे येथील शेतकरी संजय कांबळी यांनीही आपल्या भातशेतीत केवळ पेंढाच उरल्याची तक्रार तहसिलदार जयराज सुर्यवंशी यांच्याकडे केली आहे. त्यामुळे हे नवे संकटही शेतकऱ्यांसमोर उभे ठाकले असून शेतकरी वर्ग पेचात पडला आहे.



# परतीच्या पावसाने भातशेती जमीनदोस्त

मेघी सोलकरवाडीतील सात जखमी ग्रामस्थांना डिस्चार्ज



परतीच्या पावसाने जमीनदोस्त झालेली भातशेती.

रत्नागिरी : सलग दोन दिवस पडलेल्या परतीच्या मुसळधार पावसामुळे रत्नागिरी, संगमेश्वर, चिपळूण, लांजा तालुक्यातील भातशेती जमीनदोस्त झाली आहे. वीज पडून जखमी झालेल्या मेघी सोलकरवाडीतील (संगमेश्वर) सात जखमी ग्रामस्थांना देवरुख ग्रामीण रुग्णालयातून बुधवारी सायंकाळी डिस्चार्ज देण्यात आला आहे.

भारतीय हवामान खात्याच्या अंदाजानुसार रत्नागिरी जिल्ह्यात दि.१६ ऑक्टोबरपर्यंत पावसाचा जोर कायम राहणार आहे. या कालावधीत मेघगर्जना, वादळी वाऱ्यासह मुसळधार पावसाचा अंदाज वर्तविण्यात आला आहे. वीजा चमकत असताना संगणक, टीव्ही आदी विद्युत उपकरणे बंद ठेवून ..... वृत्त ७ बर

दै. सागर रत्नागिरी आवृत्ती

## परतीच्या पावसाने भातशेती जमीनदोस्त

पान १ वरून....

स्त्रोतांपासून ती अलग करून ठेवावीत. मोबाईल, दूरध्वनीचा वापर टाळावा. विजा चमकत असताना नागरिकांनी घराबाहेर पडू नये असे आवाहन जिल्हा प्रशासनाच्या वतीने करण्यात आले आहे.

गेल्या दोन दिवसांपासून वादळी वारा, मेघगर्जनेसह मुसळधार पाऊस सुरू आहे. तिन्ही तालुक्यांमध्ये या पावसाने दोन दिवसात धुमाकूळ घातला आहे. बुधवारी दिवसभर पावसाची संततधार सुरू होती. दुपारी १२ वा.च्या सुमारास रत्नागिरी शहर परिसरात मेघगर्जनेसह अतिवृष्टी झाली. त्यानंतरही रात्री उशिरापर्यंत पावसाचा जोर कायम होता.

ग्रामीण भागात हळव्या भाताची कापणी सुरू करण्यात आली होती. कापलेले भात चुकविण्यासाठी शेताच्या बांधावर घालण्यात

आले होते. सलग दोन दिवस पडलेल्या पावसामुळे भात पूर्णतः कुजून गेले आहे. काही भागात कापणी योग्य झालेले भात अतिवृष्टीमुळे जमीनदोस्त झाल्याने शेतकरी खऱ्या अर्थाने पुन्हा आर्थिक संकटात सापडला आहे. शासनाचे आदेश आल्याशिवाय जमीनदोस्त झालेल्या भातपिकाचा पंचनामा करण्यात येणार नसल्याचे कृषी विभागाकडून सांगण्यात आले आहे. यापूर्वी महापुरामुळे लावणीयोग्य झालेली भाताची रोपे वाहून गेली होती. दि.१७ ऑक्टोबरपर्यंत मुसळधार पावसाचा जोर कायम राहण्याची शक्यता हवामान खात्याने वर्तविली आहे. या पार्श्वभूमीवर जिल्हा प्रशासनाने सावधानता, सुरक्षिततेचा इशारा दिला आहे. मंगळवारी सायंकाळी एका झाडावर वीज पडून त्याचा झोळ घरात शिरल्याने मेघी सोलकरवाडीतील पाच बालके, दोन प्रौढ

असे सातजण जखमी झाले होते. सातही जणांना उपचारासाठी देवरुख ग्रामीण रुग्णालयात मंगळवारी रात्रीच दाखल करण्यात आले होते. अत्यावश्यक उपचार तात्काळ झाल्याने सातही जणांची प्रकृती सुधारली असून त्या सर्वांना बुधवारी सायंकाळी ग्रामीण रुग्णालयातून डिस्चार्ज देण्यात आला.

कडवईतील श्रीमती सुनुदा कांबळे यांच्या घराचे अंशतः ३७५०० रुपयांचे नुकसान झाले. तलाठ्यामार्फत वित्तहानीचा पंचनामा करून त्याचा अहवाल देवरुख तहसीलदार कार्यालयाकडे पाठविण्यात आला आहे. संगमेश्वर तालुक्यातील वीज पुरवठा १२ तासानंतर पूर्ववत सुरू झाला. परतीच्या पावसामुळे फारशी वित्तहानी झालेली नसल्याचे रत्नागिरी, लांजा, देवरुख तहसीलदार कार्यालयाकडून सांगण्यात आले.



# पावसाचा धुमाकूळ सुरुच



कुरचुंब-दाभोळे रस्त्यावर साचलेले पुराचे पाणी दुसऱ्या छायाचित्रात कुवारबाव येथील वृत्तपत्र विक्रेते श्री.जयप्रकाश प्रभू यांच्या घराजवळील कोसळलेली संरक्षक भिंत.

**पांगरी  
घाटात दरड  
कोसळली;  
दाभोळे-कुरचुंब  
मार्ग बंद :  
वीज पुरवठा  
खंडित**

**रत्नागिरी :** सलग दुसऱ्या दिवशीही परतीच्या पावसाचा धुमाकूळ सुरु आहे. पांगरी घाटात झाडे, दरड कोसळल्याने देवरुख-रत्नागिरी मार्गावरील वाहतूक बंद होती. दगफुटीसदृश्य पावसामुळे लांजा-संगमेश्वर तालुक्यांना जोडणारा कुरचुंब-दाभोळे मार्ग पाण्याखाली गेला. चांदेराई (रत्नागिरी) बाजारपेठेत पुराचे पाणी घुसल्याने व्यापाऱ्यांना ग्रामप्रचायतीच्या वतीने सावधानतेचा इशारा देण्यात आला होता.

## जिल्ह्यात रेडअलर्ट

**रत्नागिरी :** हवामान खात्याने चक्रीवादळासह अतिवृष्टीचा इशारा दिल्याने जिल्ह्यात रेडअलर्ट जारी करण्यात आले आहे. हवामान खात्याच्या अंदाजानुसार चक्रीवादळ कोणत्याही क्षणी आपली दिशा बदलून ते रत्नागिरी जिल्ह्यात येण्याची शक्यता आहे. चक्रीवादळात मार्गात येणाऱ्या भागांमध्ये वादळी वाऱ्यासह अतिवृष्टीची शक्यता वर्तविण्यात आल्यानेच प्रशासनाने रेडअलर्ट जारी केला आहे. जनतेने महत्वाच्या कामांशिवाय घराबाहेर पडू नये असे आवाहन जिल्हा प्रशासनाच्यावतीने करण्यात आले आहे. दि. १७ ऑक्टोबरपर्यंत जिल्ह्यात अतिवृष्टीची शक्यता हवामान खात्याने वर्तविली आहे.

धावनदी ते देवरुख मार्गाचे रूंदीकरण, खडीकरण, मजबुतीकरणाचे काम ऐन पावसाळ्यात सुरु करण्यात आले होते. रस्ता रूंदीकरणासाठी ठेकेदारांनी डॉगरांची खोदाई मोठ्या प्रमाणात केली होती. यामुळेच पांगरी घाटात दरड कोसळून वाहतूक पुन्हा बंद करावी लागली. घाटातील रस्त्यावर अनेक ठिकाणी दगड, माती दिगारे, पडलेल्या झाडांचे अडथळे आले होते. सदरचा मार्ग ..... ▶ वृत्त ६ वर

दै. सागर रत्नागिरी आवृत्ती

## पावसाचा धुमाकूळ सुरुच

**पान १ वरून....**

वाहतूकीस अधिक धोकादायक झाला आहे. डॉगरांच्या पायथ्याशी असलेली माती जेसीबीद्वारे काढली तरच पांगरी घाटातील दरड कोसळण्याचे प्रकार थांबण्याची शक्यता आहे.

रत्नागिरी, संगमेश्वर, लांजा तालुक्याच्या बहुतांशी भागातील वीज पुरवठा बंद होता. वादळी वाऱ्यासह पडलेल्या पावसामुळे अनेक ठिकाणी विद्युत वाहिनींवर झाडे, फांद्या पडल्या आहेत. मुख्य वीज वाहिनीसह फिडरमध्ये तांत्रिक बिघाड झाल्याने शहरी, ग्रामीण भागातील असंख्य नागरिकांना काळोखात चाचपडावे लागले आहे. खंडित वीज पुरवठा वेळेवर सुरु व्हावा यासाठी महावितरण कंपनीच्या अधिकाऱ्यांनी फारसे प्रयत्न न केल्याने सर्वसामान्यांमध्ये नाराजी वाढली आहे. गुरुवारी सकाळी लांजा तालुक्याच्या पूर्व भागात दगफुटीसदृश्य पाऊस पडला. दाभोळे-कुरचुंब रस्त्यावर तीन फूट पाणी साचले होते. नदी, ओढ्याला आलेल्या पुराचे पाणी मुख्य रस्त्यावरून वाहू लागल्याने वाहतूक बंदचा निर्णय घेण्यात आला. रस्त्याच्या दोन्ही बाजूला वाहनांच्या रांगा लागल्या होत्या. चार तासांहून अधिक काळ या मार्गावरील वाहतूक बंद ठेवण्यात आली होती. पुराच्या पाण्याचा अडथळा दूर होताच वाहतूक पूर्ववत् सुरु करण्यात आली. रत्नागिरी शहर परिसरात पावसाचा जोर कायम आहे. तालुक्याच्या ग्रामीण भागातील घरे, गोठ्यांच्या अंशतः पडझड झाली आहे. कुवारबाव येथील दैनिक सागरचे वितरक श्री.जयप्रकाश सुभाष प्रभू यांच्या घराजवळील संरक्षक भिंत ओढ्याला

आलेल्या पाण्यामुळे जमीनदोस्त झाली आहे. संरक्षक भिंत कोसळल्याने श्री. जयप्रकाश यांचे मोठे नुकसान झाले आहे. संगमेश्वर तालुक्यात सलग तीन दिवस पावसाचा जोर कायम आहे. पांगरी घाटात दोन ठिकाणी दरड तर तीन ठिकाणी मुख्य रस्त्यावर झाडे कोसळली आहे. सार्वजनिक बांधकाम विभागामार्फत दरडी, झाडांचा अडथळा दूर करण्याचे काम युद्धपातळीवर सुरु झाले होते. चार तासांच्या अथक प्रयत्नानंतर रस्त्यावरील अडथळे दूर करण्यात बांधकाम विभागाला यश आले. निवेबुदुक नागझरी रस्त्यावर पुराचे पाणी आले होते. या सर्व कारणांमुळे देवरुख-रत्नागिरी मार्गावरील वाहतूक बंद ठेवण्यात आली होती. संगमेश्वर तालुक्यातील बहुतांशी नद्यांनी धोक्याची पातळी ओलांडल्याने अनेक भागात पुरस्थिती निर्माण झाली आहे. गेल्या २४ तासात मंडणगड तालुक्यात ९.२० मिमी, दापोलीत १८.४० मिमी, खेड तालुक्यात ८८.४० मिमी, गुहागरात ४६.१० मिमी, चिपळुणात २९.२० मिमी, संगमेश्वर तालुक्यात ५५.८० मिमी, रत्नागिरी तालुक्यात ५६.३० मिमी, लांजा तालुक्यात ४८ मिमी, राजापुर्नात २२.८० मिमी पाऊस पडला. जिल्ह्यात दि. १ जून ते दि. १५ ऑक्टोबर या कालावधीत २७४५.७९ मिमीच्या सरासरीने २४७१२.०७ मिमी पाऊस पडला. गतवर्षी जिल्ह्यात याच कालावधीत ४३०४.५१ मिमीच्या सरासरीने ३८७४०.५७ मिमी पावसाची नोंद झाली होती.

## कोकणात शेतकऱ्यांसाठी



रविवार १८ ऑक्टोबर २०

दै. सागर

## कोकणात ओला दुष्काळ जाहीर करावा -माजी आ.पंडित पाटील

चणेरा :- चालू वर्षात एका पाठोपाठ एक आलेली संकटे त्यातच परतीच्या पावसाने हातातोंडाशी आलेला घास हिरावून जात असल्याचे पाहणे रायगडसह कोकणातील सर्व शेतकऱ्यांच्या नशिबी आले आहे. राज्यातील सर्व धार्मिक देवस्थाने बंद आहेत. यामुळे देवाच्या दारी जाऊन त्याचा धावा करणे शक्य नाही. पण नको देवराया अंत आता पाहू अशी विनवणी शेतकरी वर्ग करत आहे. तर शेतकरी कामगार पक्षाचे नेते पंडित पाटील यांनी ओला दुष्काळ जाहीर करावा अशी मागणी केली आहे.

निसर्ग चढीवाढळाचा तडाखा कोकणात बसला येथील आंबा, काजू, नारळ सुपारी



परतीच्या पावसाने झालेल्या नुकसानीबाबत ओला दुष्काळ जाहीर करण्यात यावा.

पिकविणारा शेतकरी अक्षरशः उध्वस्त झाला. वाडवडिलांनी मोठ्या केलेल्या बागा नष्ट झाल्या. शासनाने पाहणी दौरे झाले. तुटपूंजी मदत मिळाली. अजून अनेकांना मिळालेली नाही. आठवडाभर झालेल्या पावसामुळे भाताचे पीक मातीमोल झाले आहे. भाताचे पीक कापणे व त्याची मळणी करण्याचा खर्च देखील निघणार नाही अशी भयावह परिस्थिती आहे. शासनाने आता पंचनाम्याचे फार्स न करता सरसकट ओला दुष्काळ जाहीर करावा अशी मागणी शेकापचे माजी आ. पंडित पाटील यांनी केली आहे. शासनाने शेतकऱ्यांना मोफत किंवा सवलतीच्या दरात बियाणे उपलब्ध करून द्यावे. १०० युनिट पर्यंत वीज बिल माफ करावे. अशा उपाययोजना कराव्यात. अशी मागणी शेकाप नेते पंडित पाटील यांनी केली आहे.



# पन्नास टक्के भातशेती पाण्यात

रत्नागिरी:अरबी समुद्रात कमी दाबाचा पट्टा निर्माण झाल्याने जिल्ह्यात झालेल्या मुसळधार पर्जन्यवृष्टीमुळे पन्नास टक्केपेक्षा अधिक भात क्षेत्र बाधित झाले आहे. कापलेली भातशेती पाण्याच्या प्रवाहाबरोबर वाहून गेली आहे. त्यामुळे पिक हाताशी आलेले असताना शेतकऱ्यांच्या तोंडचा घास वाढल्याने काढून घेतला आहे.



रत्नागिरी जिल्ह्यात ६८ हजार हेक्टर क्षेत्रावर भात लागवड, तर १२ हजार हेक्टर क्षेत्रावर नागली पिकाची लागवड करण्यात आली आहे. हळवे भातपीक तयार झाल्याने शेतकऱ्यांनी भातकापणीला प्रारंभ केला होता.

हजार हेक्टर क्षेत्रावरील भातपीक वाचले असले तरी उर्वरित भातपिकाचे नुकसान झाले आहे.

यावर्षी पाऊस लांबल्याने भात कापणीला विलंब झाला. पावसाचा अंदाज घेत शेतकऱ्यांनी भात कापणी केली. मात्र, गेल्या आठवड्यात भात कापणी केलेल्या शेतकऱ्यांना पावसाने चांगलाच चकवा दिला. शनिवारपासून सतत पाऊस सुरू होता. मंगळवारी दुपारपर्यंत ऊन होते. मात्र, सारंकाळपासून पुन्हा पावसाने हजेरी लावली. कापून वाळविण्यासाठी ठेवलेले भात शेतकऱ्यांना घरी आणता आले नाही. राजापूर, लांजा, रत्नागिरी,

ता. १३ ऑक्टोबर २०२०



## अतिवृष्टीमुळे कोकणात ३५ हजार हेक्टर भातशेतीचे नुकसान : शेतकरी हवालदिल

तात्काळ पंधनामे करून भरपाई देण्याची वंचितचे सुशांत जाधव यांची मागणी

**विपळण :-** वृष्टी विभागाकडून प्राप्त झालेल्या माहितीनुसार अतिवृष्टीमुळे कोकण विभागात सुमारे ३५ हजार हेक्टर भातशेतीचे नुकसान झाले आहे. परिणामी शेतकरी हवालदिल झाले आहेत. त्यामुळे तातडीने नुकसानीचे पंधनामे करून कोकणातील शेतकऱ्यांना सरकारने भरपाई द्यावी अशी मागणी वंचित बहुजन आघाडीचे

रत्नागिरी जिल्हा सचिव श्री. सुशांत जाधव यांनी केली आहे. श्री. जाधव पुढे म्हणाले की, पावसाने कोकणातील नदी विंगवा नाले-ओहोळ्यांच्या कडेला असलेल्या शेतातील कापलेले भातपीक पाण्याच्या लोंढ्यांमध्ये वाहून गेले. तसेच अनेक ठिकाणी शेतात कापणीला आलेले पीक जमिनीवर आडवे झाले. रत्नागिरी जिल्ह्यातील राजापूर,



लांजा, रत्नागिरी, संगमेश्वर तालुक्यात नदी किनाऱ्यावरील पीकाचे जास्त नुकसान झाले आहे. चार महिन्यांच्या मेहनतीवर पाणी फेरल्यामुळे शेतकऱ्यांची अवस्था बिकट झाली आहे. काही ठिकाणी भाताबरोबर नाचणीचेही पिक वाहून गेले आहे. त्यामुळे शासनाने तात्काळ मदत देऊन शेतकऱ्यांना दिलासा द्यावी अशी मागणी श्री. जाधव यांनी केली आहे.

**पीएम किसान**



## अधिकाऱ्यांसह लोकप्रतिनिधीहि शेताच्या बांधावर

**चिपळूण :** परतीच्या पावसाने तालुक्यातील शेतकऱ्यांच्याही तोंडचे पाणी पळवले आहे. या पावसात भातशेतीचे प्रचंड नुकसान झाले असून शेतकरी राजा हवालदिल झाला आहे. अस्मानी संकटात सापडलेल्या नुकसानग्रस्त शेतकऱ्यांना मानसिक आधाराबरोबर शासकीय मदत मिळवून देण्यासाठी अधिकाऱ्यांबरोबरच लोकप्रतिनिधीही शेताच्या बांधावर जाताना दिसून येत आहेत. दरम्यान, सोमवारपासून नुकसानग्रस्त भातशेतीचे पंचनामे करण्यास प्रारंभ झाला असून त्यासाठी महसूल, कृषी, पं.स. ग्रामपंचायत विभागातील तब्बल १८५ कर्मचाऱ्यांची नियुक्ती करण्यात आली आहे.

आमदार शेखर निकम यांनी तीन दिवसांपूर्वी तातडीची बैठक घेत प्रांताधिकारी प्रवीण पवार, तहसिलदार जयराज सूर्यवंशी, पं.स. गटविकास अधिकारी प्रशांत राऊत, तालुका कृषी अधिकारी राहुल अडावे यांना नुकसानग्रस्त भातशेतीचे तात्काळ पंचनामे करण्याचे आदेश दिले होते. त्यानुसार सोमवारपासून १० ग्रामसेवक, २७ कृषी सहाय्यक, ५० तलाठी असे १६७ कर्मचाऱ्यांनी तालुक्यातील १३० गावांमध्ये नुकसानग्रस्त भातशेतीची पाहणी करून पंचनामे करण्यास सुरुवात केली आहे. या कर्मचाऱ्यांवर मॉनिटरिंग करण्यासाठी १८ पर्यवेक्षकांच्या नेमणुका करण्यात आल्या आहेत. पंचनाम्याची जबाबदारी

■ चिपळूण तालुक्यात नुकसानग्रस्त भातशेतीचे पंचनामे सुरू  
■ १८५ कर्मचाऱ्यांची नियुक्ती



टेरव येथील नुकसानग्रस्त भातशेतीची पाहणी करताना पं.स.च्या माजी सभापती व विद्यमान सदस्या सौ. पूजाताई निकम, जि.प. सदस्या सौ. दिशा दाभोळकर सोबत पदाधिकारी व अधिकारी.

### भातशेती कसणाऱ्याला नुकसान भरपाई मिळावी

तालुक्यात अनेक ठिकाणी भातशेती कसणाऱ्यासाठी दिली जाते. जमीन करण्यासाठी घेणारा शेतकरी शेतातून चांगले पीक मिळावे यासाठी काबाडकष्ट करत असतो. पदरचा पैसा लावतो. मात्र सातत्यावर नाव नसल्याने जमीन कसणारा शेतकरी नुकसान भरपाईपासून वंचित राहतो. पंचनाम्यानंतर मदत वाटपातही या प्रकारामुळे अडचणी निर्माण होतात. त्यामुळे जो शेतकरी भातशेती कसतो, त्याला नुकसान भरपाई मिळावी यासाठी आपण तहसिलदार जयराज सूर्यवंशी यांच्याशी चर्चा करणार आहोत.

**सौ. पूजाताई निकम, माजी सभापती व विद्यमान सदस्या, पंचायत समिती, चिपळूण.**

दिलेल्या कर्मचारी, अधिकाऱ्यांसोबतच स्थानिक लोकप्रतिनिधीही नुकसानग्रस्त भागांची पाहणी करत आहेत. त्यानुसार सोमवारी

तालुक्यातील टेरव, कामधे, कोंडमळा, कापसाळसह अन्य गावांमध्ये पंचायत समितीच्या माजी सभापती व विद्यमान सदस्या

पूजाताई निकम, जिल्हा परिषद सदस्या दिशा दाभोळकर, पं.स. सदस्या रिधा कर्गळे यांनी नुकसानग्रस्त शेतीची पाहणी केली. तसेच संबंधित अधिकाऱ्यांकडून पंचनाम्याबाबत आढावाही घेतला. तसेच या लोकप्रतिनिधींनी शेतकऱ्यांशी चर्चा करत त्यांना मानसिक आधार दिला. पंचनाम्यात काही अडचणी आल्यास सहकार्यांचे आवाहन केले. यावेळी कृषी विस्तार अधिकारी श्री. गावडे, सरपंच समीर बेचवडे, माजी उपसरपंच किशोर कदम, तलाठी, ग्रामसेवक आदी उपस्थित होते.



# बांधावर! शेतकऱ्यांना अश्रू अनावर

## सरकारच्या मदतीपेक्षा कागदपत्रांचा खर्च तिप्पट; पंचनाम्याकडे पाठ

### ■ राजेंद्र चव्हाण

**रत्नागिरी :** 'चार महिन्यात पिकणाऱ्या भातावर आम्ही वर्षभर जगतो', 'घास तोंडाजवळ आला होता, दोन दिवसाच्या पावसाने हिरावून नेला', 'आता वर्षभर खायचं काय?', कुटुंब चालवायचं कसं', 'कोरोनामुळे नोकरी-धंदा, मजुरी पण नाही, वर्षभर पोटाची खळगी भरायची कशी', 'सरकारच्या मदतीपेक्षा, कागदपत्रांचा खर्च जास्त', तर मग कागदपत्र द्यायचीच कशाला. केवळ पंचनामे करायला अधिकारी येतात. आमच्या व्यथा ऐकायला वेळ आहे कोणाला? निसर्गाचा कोप असाच होत राहिला तर आम्हाला उपाशीच रहावे लागेल' अशा संतप्त भावना चांदेराई येथील शेतकऱ्यांनी व्यक्त केल्या. पाण्यात आडवे झालेल्या भाताकडे पाहून हताश झालेले शेतकरी पोटतिडिकीने बोलत होते. यावेळी शेतकऱ्यांना अश्रू अनावर झाले.

परतीचा पाऊस वादळासह दाखल झाला. त्यामुळे कोकणासह रत्नागिरी जिल्ह्यातील शेतकरी पूर्णतः कोलमडून गेला आहे. वुठे कापण्यासाठी तयार, तर कुठे कापून मळ्यात सुकण्यासाठी ठेवलेले भात अचानक आलेल्या पावसाने कुजून गेले आहे. लांबलेल्या पावसामुळे भात कापणीला वेळ झाला. एक महिना उशिराने भात कापणी सुरू झाली. चांगले पीक आले आहे. वर्षभर धान्य पुरेल या आशेवर असलेल्या शेतकऱ्यांना परतीच्या पावसाने चांगलेच निराश केले. पंधरा दिवसात भात कापणी, झोडणी पूर्ण करून 'इरले' भरून भात ठेवू अशी आमची स्वप्न पावसाने धुळीला मिळविली आहेत हे सांगताना बांधावर शेतकऱ्यांना अश्रू अनावर झाले.

रत्नागिरी तालुक्यातील काजळी नदीच्या तिरावर वसलेल्या हरचेरी गावातील शेतकऱ्यांची अवस्था दयनीय झाली आहे. नदीला पूर



हातच पीक गेलं... आता वर्षभर खायचं काय!, आडव्या झालेल्या भातातून आले नवे कोंब.

आल्याने नदीपात्रातील पाणी भातशेतीच्या मळ्यात घुसले. तब्बल पाच फूट पाणी मळ्यात असल्याने सर्व भातशेती पाण्याखाली गेली. पूर ओसरला, पण सर्व भात आडवे झाले. मळ्यात पाणी सातून राहिल्याने सर्वच भात कुजत आहे. कापलेले भात उडवी करून ठेवले होते. त्या भातालाही कोंब आले आहे. त्यातून भाताची रोपे बाहेर आली आहेत. त्यामुळे आम्ही आता

मिळेल ही कागदपत्र जमा करा असे सांगून गेले आहेत. त्यांना फोटो हवे, त्यासाठी 40 रु. खर्च, नवा कोरा सातबारा हवा, तो आणण्यासाठी दोनशे रुपये हवे, इतर झेरॉक्स आहेतच, ही कागदपत्रे एका खेपेत मिळत नाहीत. त्यासाठी दोनवेळा जायला पैसे हवे, 300 रुपये खर्च करून शासनाची नुकसान भरपाई मिळणार किती गुंत्याला 64 रुपये.

यावेळी त्यांच्या डोळ्यातील अश्रू खूप काही सांगून जात होते. मुसळधार पावसात भिजून केलेली लावणी, घातलेले खत, मशागतीवर झालेला खर्च यातून मिळाले काहीच नाही. यामुळे शेतकरी हताश झाला आहे. शासनाची मदत शेतकऱ्यांची थड्डा करणारी असल्याने शेतकऱ्यांना वर्षभर कुटुंबाला खायला घालायचे काय याचीच चिंता लागली आहे.

### हेक्टरी नको, गुंत्याला मदत द्या

राज्य सरकार नुकसानग्रस्त शेतकऱ्यांना हेक्टरी मदत जाहीर करतं, मात्र कोकणातील शेतकऱ्यांनी स्वतःचे हेक्टरभर शेत कधी पाहिलेच नाही. आम्ही स्वतःचे नाही तर दुसऱ्याच्या जागेत शेती करतो. सरकारची हेक्टरमदत आम्हाला गुंत्याला किती मिळते. त्याचा उपयोग काही नाही. आता कोकणाच्या माणसाला समजून घेणारे मुख्यमंत्री राज्याला मिळाले. आहेत. त्यांना कोकणाच्या व्यथा माहीत आहेत. मुख्यमंत्र्यांनी कोकणातील तरी शेतकऱ्यांना गुंत्याला मदत जाहीर करावी अशी मागणी हरचेरी येथील शेतकऱ्यांच्यावतीन संतोष भुर्के यांनी केली आहे.

कसं जगायचं हे सरकारनेच सांगावं! अशा शब्दात शेतकऱ्यांनी आपल्या भावना व्यक्त केल्या.

हातच पीक गेलं. आता रडत बसण्याशिवाय काय आहे? कृषी अधिकारी आले. पंचनामा केला, मदत

मग आम्ही कागदपत्रे द्यायचीच कशाला. अगोदरच पोटाची खळगी भरण्याची चिंता आहे. अशातच 64

रुपयांसाठी 300 रुपये खर्च करायला आहेत कोणाकडे अशी संतप्त प्रतिक्रिया शेतकऱ्यांनी व्यक्ती केली.



# परतीच्या पावसामुळे मासेमारी ठप्प

प्रतिनिधी  
रत्नागिरी

परतीच्या पावसामुळे किनारपट्टीवरील मासेमारी येथे चार-पाच दिवस ठप्प झाली आहे. त्यातच हवापान खात्याने मंगळवारपासून मुसळधार पावसामुळे वादळाचा अंदाज वर्तवल्यामुळे चहुतप्रांश नौका बंदराने मागे पाठून ठेव्या आहेत. ऐन हंगामातच परतीमुळे परतीमारीची नाणी खपवणे मुश्किल होत आहे.

सध्या परतीची मासेमारी वेळाने थांबू आहे. या हंगामात मच्छीमाराचा चांगली मासळी मिळत असल्याने मच्छीमार सुखावला होता. कोरडी, गरम होवी पावलेसह निर्यातलाय पाऊ मास मिळत



असल्याने हा महिना मच्छीमारासाठी नामदायक होता. मात्र मागील चार-पाच दिवस परतीच्या पावसामुळे मासेमारी ठप्प झाली आहे. पावसाने उबत येतल्यामुळे फिरकोट नौका मासेमारीसाठी गेल्या, मात्र हवामान खात्याने सोमवारी वर्तवलेल्या अंदाजानुसार कोकण किनारपट्टीवर पुन्हा वादळसदृश्य परिस्थिती व मुसळधार

पावसाच्या शक्यतेमुळे मासेमारी ठप्प झाली आहे. ऐन हंगामात निसर्गाच्या नडरीपणामुळे मच्छीमार हवालदिल झाला आहे. त्यातच परतीची मासेमारी ही वारच महिने परवानगी आहे. यातील बराचसा कालावधी हा प्रतिकूल हवामानामुळे वाया गेला आहे. हीच परिस्थिती प्रादेशिक मिननेट व ट्रेनिंग कॅम्पिंगसाठी आहे.

मच्छीमाराच्या उदरगटू न्यातीसाठी मच्छीमारीची मिश्रीतलाय मासळी मिळाली होती. आता मात्र खपवलेल्या समुद्रामुळे ही मासळी मोठ्या प्रमाणात खतांतर करणाऱ्या शक्यता मच्छीमाराची वर्तवली आहे.

# जिल्ह्यात पुन्हा पावसाची 'एन्ट्री', शेतीवर संकट

प्रतिनिधी  
रत्नागिरी

गेल्या आठवड्यापासून सुरू असलेल्या मुसळधार पावसाने राज्याला झोडपून काढल्यानंतर आता मंगळवारपासून जिल्ह्यात या पावसाने पुन्हा वेग घेतला आहे. त्यामुळे तीन दिवसांच्या उन्हाळ्यानंतर पावसाच्या सावधाने शेती क्षेत्रातील गुंतलेला येथील शेतकरी पुन्हा विताग्रस्त झाला आहे.

बंगाल सागरात लहर झालेल्या वादळी वातावरणाचा आला पुन्हा प्रभाव दिसला आहे. त्यामुळे २२ ऑक्टोबरपर्यंत राज्यात पाऊस राहणार असल्याचा दशारा हवामान खात्याकडून देण्यात आला आहे. जिल्ह्यात मंगळवारी सकाळपासूनच

- जोरदार वादळी पावसाच्या इशान्याने सतर्कता
- शेतकऱ्यांनी पिकांची काळजी घेण्याचे आवाहन

जिल्ह्यात पावसाचा जिव्हाळा हाजिर झाल्याने परतीची दुसऱ्यापासून जमनेत बांधून पिकांची नुकसनासह काढकासारखे पावसाच्या जोरदार तरी बरसल्या त्यामुळे येथील शेतीच्या कामावर पुन्हा एकदा पाणी पडले. म्हाई वेपरावनेने दिलेल्या माहितीनुसार, राज्यात काकणात तटवर्ती वातावरण मुसळधार पावसाची शक्यता वर्तवण्यात आली आहे. तर आज रत्नागिरी व सिंधुदुर्गमधील विविध त्रिकोणी जिल्ह्यात मंगळवारी सकाळपासूनच मुसळधार पाऊस होणार आहे.

## जन समाजहित जपणारी मानसी!

कोरोनामुक्तीसाठी वाड्या-वाड्यांमध्ये पायपीट करत जनजागृती

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24-ऑक्टोबर 20

## चिपळूणात ८८२ हेक्टर नुकसानग्रस्त भातशेतीचे पंचनामे दोन दिवसांत प्रक्रिया पूर्ण होण्याची शक्यता

**चिपळूण :-** परतीच्या पावसाने नुकसान केलेल्या भातशेतीचे पंचनामे करण्याचे काम युध्द पातळीवर सुरु आहे. शुक्रवारपर्यंत ८८२.४२ हेक्टर नुकसानग्रस्त भातशेतीचे पंचनामे पूर्ण

झाले आहेत. तर येत्या दोन दिवसांत पंचनाम्याची प्रक्रिया पूर्ण होण्याची शक्यता महसूल व कृषी विभागाकडून व्यक्त केली जात आहे.

चिपळूण तालुक्यात परतीच्या

पावसाने यावर्षीही भातशेतीचे मोठे नुकसान केले. राज्यशासनाच्या आदेशानुसार येथील महसूल व कृषी विभागाच्या अधिकाऱ्यांमार्फत बाधित भातशेतीची पाहणी करून पंचनामे केले जात आहेत. त्यानुसार दि. २३ ऑक्टोबरपर्यंत ४ हजार ४७० शेतकऱ्यांच्या ८८२.४२ हेक्टर नुकसानग्रस्त भातशेतीचे पंचनामे करण्यात आले आहेत. तालुक्यात सुमारे ५ हजार ६०८ शेतकऱ्यांची १ हजार २३.५० हेक्टर लागवडीखालील भातशेतीची या परतीच्या पावसाने नासाडी केल्याचा प्राथमिक अंदाज व्यक्त केला जात आहे. पंचनामे तात्काळ करावेत अशा सूचना शासनाकडून देण्यात आल्याने यंत्रणा कामाला लागली आहे. येत्या दोन दिवसांत तालुक्यातील सर्व नुकसानीचे पंचनामे पूर्ण होतील, असा अंदाज व्यक्त केला जात आहे.



**चिपळूणचे जाणते राजे**  
**माजी आमदार रमेशभाई कव्ठ**  
**यांस वाढदिवसाच्या**  
**मठाःस्वी**  
**शुभेच्छा!**

श्री. सुनील अनंत चौधरी    श्री. मिलिंद अनंत चौधरी  
श्री. अनिल अनंत चौधरी    कु. रोहन सुनील चौधरी

## ओमळी ते नारदखेरकी येथील कॉजवेचा भराव गेला वाहून

मुसळधार पावसाचा फटका, शेतकऱ्यांसह ग्रामस्थांची अडचण

**चिपळूण :** दोन दिवसांपूर्वी कोसळलेल्या मुसळधार पावसात तालुक्यातील ओमळी-पवारवाडी व नारदखेरकी या दोन गावांना जोडणाऱ्या वहाळावरील कॉजवेच्या दोन्ही बाजूचा भराव पूर्णपणे वाहून गेला आहे. त्यामुळे हा कॉजवे वाहतुकीसाठी धोकादायक व अडचणीचा बनला आहे.

चिपळूण तालुक्यात मंगळवारी मुसळधार पाऊस कोसळला. या पावसाने ओमळी, नारदखेरकी, ताम्हणमळा पंचक्रोशीतील शेतीचे अतोनात नुकसान केले. तर नदीला आलेल्या पुरामुळे तीन गावांच्या संपर्काच्यादृष्टीने महत्वाचा असलेला नितीन सोमण यांच्या घराजवळील कॉजवेचा दोन्ही बाजूचा भराव वाहून गेला आहे. यामुळे ग्रामस्थांची मोठी गैरसोय निर्माण झाली आहे. माजी खासदार अनंत गीते यांच्या निधीतून १५ लाख रुपये खर्च करून हा कॉजवे बांधण्यात आलेला होता. या कॉजवेच्या दोन्ही बाजूंना असलेला भराव वाहून गेल्यामुळे ओमळी-पवारवाडी, नारदखेरकी-



**ओमळी पवारवाडी व नारदखेरकी या दोन गावांना जोडणाऱ्या वहाळावरील कॉजवेच्या दोन्ही बाजूचा वाहून गेलेल्या भराव.**

आंबवकरवाडी, ताम्हणमळा-साहाणवाडी येथील शेतकऱ्यांना भातशेतीची वाहतूक करण्यासाठी फार मोठी अडचण निर्माण झाली आहे. तर वाहतुकीच्या दृष्टीनेही हा कॉजवे धोकादायक बनला आहे. या कॉजवेच्या ओमळी पवारवाडीच्या बाजूला अजून दोन व नारदखेरकी गावाच्या बाजूने दोन नाल्यांची आवश्यकता आहे. तरी जि.प. बांधकाम विभागाने याकामी गांधार्याने लक्ष घालून या कॉजवेचे काम तातडीने हाती घ्यावे, अशी मागणी केली आहे.



## Tower restoration report by JPTL

## **Annexure C: Feasibility study report on ERS**



## **FEASIBILITY REPORT**

**TO : JAIGAD POWER TRANSCO LIMITED**  
**FROM : GREENMINT POWER PRIVATE LTD**  
**DATE : 05<sup>th</sup> October 2020**  
**SUBJECT : Deploying Emergency Restoration System at collapsed tower no 150 of 400kv D/C (Quad) Jaigad Karad Transmission line.**

Subsequent to tower collapsed due to massive landslide in sahyadri hills, we have been called for feasibility of collapsed tower restoration by best possible method in order to maintain smooth power evacuation through JSWEL's thermal generating plant at Jaigad.

### **Client Requirements:**

- A. To recommend best possible solution for speedy restoration of collapsed tower
- B. Restoration activity completion timeline should be within two months
- C. The solution should be stable & reliable

During site visit, three best possible options were explored for restoration of collapsed tower. We have emphasized on safe & speedy solution while doing reconnaissance of collapsed tower site.

### **Option1: By adapting ERS system by temporary re-routing of line:**

An Emergency Restoration System (ERS) structures are a temporary solution designed to bypass the existing transmission towers. They will be used until the main line is re-conducted or restored. At present, there is no approach road for tower location, so at least a tractorable approach road need to be prepared for any kind of site mobility.

Due to adverse geographical nature of site location, temporary re-routing of line through alternate way is very challenging. Also, as learned from JPTL the tower no 151 is located in reserved forest area of Koyna wildlife sanctuary, it is subjected to forest clearance to undertake any diversion of line route from approved route alignment by MoEF.

GREENMINT POWER PRIVATE LIMITED  
CIN :U40109MH2007PTC253167

#### **Registered Office**

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+91-22-24323300  
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www.greenmintpower.com





**Option 2: By undertaking permanent restoration of collapsed tower at existing tower base:**

As mentioned in above option, preparation of approach road is must to undertake any kind of restoration activity. During assessment of collapsed tower, it is observed that there was lesser impact on tower foundation as three tower legs looks safe, only Leg-A of the tower no 150 damaged due to undue tension on stub.

Also re-routing of line is also not feasible considering terrain & statutory clearance from MoEF, it is better to go with permanent restoration of tower at existing tower base.

**Option 3: By adapting permanent restoration of collapsed tower by re-routing of existing tower:**

Considering long term solution, it is also suggested to explore partial diversion of an existing transmission line from landslide prone area. This will require a detailed surveying & engineering for diversion of line route in hilly area as well as subjected to approval from Forest authorities as diversion route may change existing route alignment in forest area.

Below table will elaborate on three options recommended in the site visit,

Option No	Method of restoration	Timeline	Remarks
1	By adapting ERS system by temporary re-routing of line	Min. 15 days*	Re-routing on ERS is not feasible as very succeeding tower no 151 is falls under reserved forest area.
2	By undertaking permanent restoration of collapsed tower at existing tower base	Min. 60 days*	No additional surveying required as there was no re-routing involved. Also, Most feasible solution as impact on adjacent towers is negligible.
3	By adapting permanent restoration of collapsed tower by re-routing of existing tower.	Min. 180 days**	Detailed surveying works need to be done as re-routing of existing line is required from at least for 4 to 5 towers considering hilly terrain & available soil strata.

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CIN :U40109MH2007PTC253167

**Registered Office**

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**Note:** \* subjected to availability of tractorable approach road to deploy restoration machineries.

**\*\*** subjected to approval from MoEF for partial diversion of an existing transmission line.

**Conclusion:** We recommend to opt out for permanent restoration of collapsed tower at existing tower base, as this is the best feasible option of tower restoration specifically for the site location of tower no 150 of 400kV D/C (Quad) Jaigad-Karad transmission line. Also it is learned that, a 1200 MW power of JSWEL's thermal generating station can be evacuated through available alternate element ie. 400kV D/C (Quad) Jaigad-New koyna Transmission line, it will have lesser impact on grid stability as well.

For GREENMINT POWER PVT. LTD.

**AMIT SINGH**

(Authorized Signatory)

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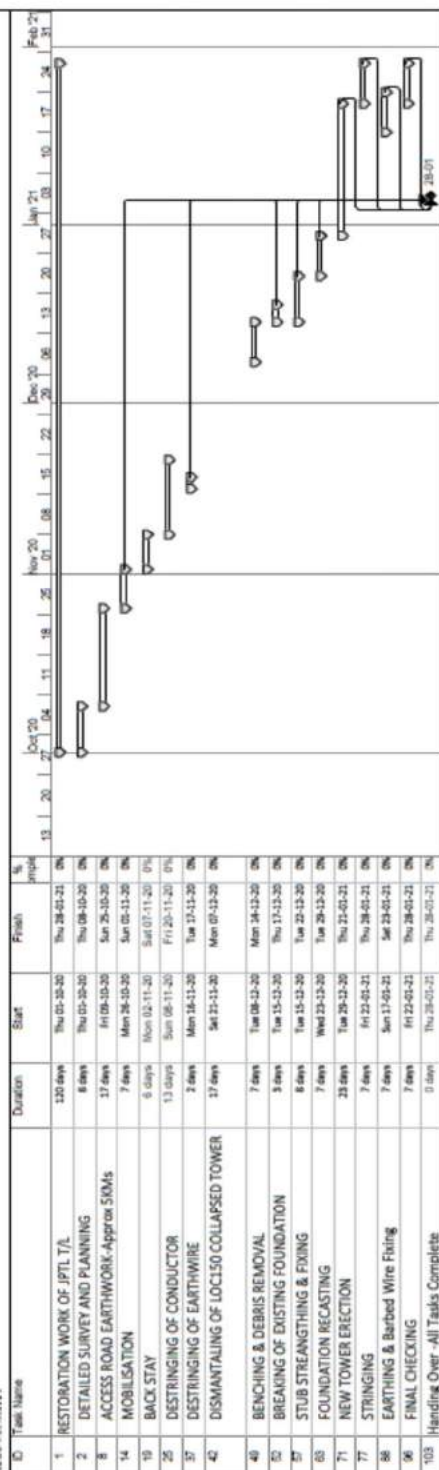
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## **Annexure D: Bar chart for completion schedule projected by M/s.Greenmint**





## 400KV QUAD D/C Line Restoration



Project: 400KV Line Restoration  
submitted by: GREENMINT POWER  
PVT. LTD.(for tendering purposes)

Task  
Baseline  
Baseline Milestone  
Summary  
Rolled Up Task  
Rolled Up Milestone  
Baseline Summary

Rolled Up Baseline  
Rolled Up Baseline Milestone  
Rolled Up ProgTask  
Progress  
Baseline  
Milestone  
Baseline Milestone

Summary  
Inactive Milestone  
Inactive Summary  
Manual Task  
Durability  
Manual Summary Rollup  
Manual Summary

Start-only  
Finish-only  
External Task  
External Milestone  
Progress  
Milestone

Start-only  
Finish-only  
External Task  
External Milestone  
Progress  
Milestone