Office of the Principal Conservator of Forests
(Head of Forests Force), Maharashtra State
Additional Principal Conservator of Forests & Nodal Officer,
Van Bhavan, D wing 1st floor,Ramgiri Road, Civil Lines, Nagpur- 440 001
Tel.No.: 0712- 2556916 , E-mail: apccfnodal@mahaforest.gov.in

No.Desk-17/Nodal/FCA-SI/ID-13183/2024-25/900
Nagpur - 440 001, Date: 14 /07/2025

To,

Addl. Chief Secretary (Forests),
Revenue & Forests Department,
Mantralaya, Mumbai-32.

Sub:- Proposal seeking Ex-post facto approval under Section 2(1) (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 180 for diversion of 0.45 ha forest land in favour of EHV Project Division M.S.E.T.C.L. Amravati for construction of LILO on 132 KV Yavatmal- Yavatmal MIDC line for 132 KV Darwha Sub-station Transmission Line in Yavatmal District in the State of Maharashtra. - regarding.
(Online No.- FP/MH/TRANS/37560/2018).

Ref:-
1. Government of India, Ministry of Environment, Forests and Climate Change, RO, Nagpur letter no Dated-23.12.2024
2. Chief Conservator of Forests (T), Yavatmal vide letter No. CF(T)/Desk-10/FCA/ 264/2025-26 dated 04.07.2025.

Sir,

The Government of India asked for compliance of queries vide letter under reference No.1 Accordingly, the Conservator of Forests (T), Yavatmal vide letter under reference No.2 has submitted the compliance to the queries to this office which is being submitted as under:-

S.No.	Query	Compliance
i	Complete KML file showing the 'To' and 'Fro' passage including 98.0991 ha Non-Forest land involved in the project shall be uploaded/ submitted along with layout map.	As per the Compliance submitted by Dy. Conservator, Yavatmal Division, Yavatmal and by the Conservator of Forests (T) Yavatmal submitted that the user agency Complete KML file showing the 'To' and 'Fro' passage including 98.0991 ha Non-Forest land involved in the project shall be uploaded/ submitted along with layout map.. **Annexure-I (Page No. 10 & 11)**
ii	As per Chapter-9 in the consolidated handbook of guidelines under Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 the Width of Right of Way prescribed for 132 KV line is 27 meter whereas the Width of Right of Way of KML file of proposed transmission line on forest land proposed for diversion is found to be 26 meter. Therefore, correct KML file of the proposed transmission line over forest land shall be uploaded online.	As per the Compliance submitted by Dy. Conservator, Yavatmal Division, Yavatmal and by the Conservator of Forests (T) Yavatmal submitted that the user agency Attached corrected KML file of the proposed transmission line over forest land is uploaded online and also given in the soft copy uploaded on a CD. **Annexure-II (CD Attached)**

iii	As reported 132 KV Darwha substation is technically surveyed and approved in year 2008 avoiding any forest interception that time. But the project is near completion in 2018. During this period some of the Government land is converted into forest land through which route passes. Therefore, the State Govt. shall re-examine and confirm that a consolidated proposal for the complete section of the transmission line falling in the State has been included in the instant forest diversion proposal.	As per the Compliance submitted by Dy. Conservator, Yavatmal Division, Yavatmal and by the Conservator of Forests (T) Yavatmal submitted that the user agency answered 132 KV Darwha substation is technically surveyed and approved in year 2008 avoiding any forest interception that time. But the project is neat completion in 2018. During this period some of the Government land is converted into forest land through which route passes. The User agency has confirmed that consolidated proposal for the complete section of the transmission line is included In the instant proposal. The statement of Gut no. Survey no. of privet agricultural land where the transmission line route passes including tower location is enclosed as **Annexure- III (Page No.13 to 19)**
iv	As depicted through satellite imagery, transmission line has already been established and passing through the proposed forest land. Therefore, it needs clarification along with relevant details whether the project has been completed and services have been resumed or otherwise.	As per the Compliance submitted by Dy. Conservator, Yavatmal Division, Yavatmal and by the Conservator of Forests (T) Yavatmal submitted that according to the user agency the work of LILO line of 132 KV Yavatmal-Yavatmal MIDC DCDC line for 132 KV Darwha S/Stn is completed in all respect and the line is in charged condition since dated 31.12.2019 **(Page No.20 to 26)**
v	Keeping in view of the Chapter 10, Para 10.1 of the consolidated handbook 1980, the Minimum clearance between conductor and Trees has been prescribed as 4 meters whereas it has been reported that overhead conductors at a height of 7 meter above the ground. Therefore, it needs clarification whether the minimum clearance between conductor and trees have been maintained or otherwise.	As per the Compliance submitted by Dy. Conservator, Yavatmal Division, Yavatmal and by the Conservator of Forests (T) Yavatmal submitted that that according to the user agency the Minimum clearance required between 132 KV line conductor and any object as per IE rules 1956 is 3.05 meter. All the tree falling under the transmission belt of 132 KV line viz. 27 meter have been cut to maintain the minimum clearance required between overhead conductor and ground is required 6.1 m as per IE rules 1956, which is maintained. **(Page No. 27 & 28)**

vi	Keeping in view of the Chapter 10. Para 10.5 of the consolidated handbook of guidelines issued under Van (Sanrakshan evam Samvardhan) Adhiniyam 1980, the KML file of identified degraded forest areas of not less than one ha for carrying out plantation of dwarf species (preferably medicinal plants) shall be uploaded.	As per the Compliance submitted by Dy. Conservator, Yavatmal Division, Yavatmal and by the Chief Conservator of Forests (T) Yavatmal submitted that the user agency answered no separate degraded forest area over one hector has been identified for carrying out plantation of dwarf species as area of patch is more than 0.10 ha. According to the user agency plantation of dwarf species (preferably medicinal plants) on forest area of 0.45 ha accommodated in single patch, within ROW below the transmission line conductors will be carried out at the cost of User Agency.
vii	It has been reported that the Extra High Voltage electricity transmission line project transmitting power in Yavatmal district from 132KV Yavatmal substation to 132KV Darwha substation was approved in the year 2008. However, the detail of the scheme along with technical approval of the project has not been submitted with the proposal. The same needs submission.	As per the Compliance submitted by Dy. Conservator, Yavatmal Division, Yavatmal and by the Conservator of Forests (T) Yavatmal submitted that according to the user agency extra High Voltage electricity transmission line project transmitting power in Yavatmal district from 132 KV Yavatmal substation to 132 KV Darwha substation survey was approved in the year 2008. However, the project scheme was approved by the Board of Directors Board resolution MBR 119/12 in the year 05.08.2017. The copy of MBR No 119/12 is enclosed as **Annexure-IV** **(Page No. 30 to 48)**
viii	As most of work has already be completed in the proposed forest land but it needs clarification whether the user agency had identified three alternative sites before starting the work on the proposed forest land. The justification along with the KML file in this regard needs submission.	As per the Compliance submitted by Dy. Conservator, Yavatmal Division, Yavatmal and by the Conservator of Forests (T) Yavatmal submitted that for the above said line, three alternative routes were identified by the user agency during survey of the line in the year 2008. In all three routes, forest lands were involved. But user agency was approved the most feasible route having minimum area of forest land for lying of the line.
ix	The State Govt. submitted the instant proposal as diversion of 0.45 ha forest land whereas the proposal involves violation. Therefore, it needs clarification whether the proposal is of regularization of encroachment or ex-post facto approval under the Adhiniyam, 1980.	As per the Compliance submitted by Dy. Conservator, Yavatmal Division, Yavatmal and by the Conservator of Forests (T) Yavatmal submitted that the instant proposal is for ex-post facto approval under the Adhiniyam, 1980.

x	Satellite imagery dated 03.01.2024 shows that the Pre-plantation work within the proposed CA land is completed. This needs justification	As per the Compliance submitted by Dy. Conservator, Yavatmal Division, Yavatmal and by the Conservator of Forests (T) Yavatmal submitted that the Range Forest Officer visited the proposed CA land with his staff on dated 07.03.2025 and submitted spot verification report stating that the land is reserve forest land in Comptt no 112 and that no pre-plantation work have been carried out till date. **(Page No. 60)**
xi	The State Govt. shall ensure that the user agency has proposed to establish the transmission lines in the forest land as per the Chapter 10, Para 10.1 of the Consolidated Handbook of the Guidelines issued by the Ministry on dated 29.12.2023 under the Van (Sanrakshan evam Samvardhan) Rules 2023.	As per the Compliance submitted by Dy. Conservator, Yavatmal Division, Yavatmal and by the Conservator of Forests (T) Yavatmal submitted that the User Agency has return that it will ensure to establish the transmission line in the forest land as per the Chapter 10, Para 10.1 of the Consolidated Handbook of the Guidelines issued by the Ministry on dated 29.12.2023 under the Van (Sanrakshan Evam Samvardhan) rules, 2023.

This is for your information and further necessary action.

Encl: As above

14/7/25

(Naresh Zurmure)
Additional Principal Conservator of Forests
& Nodal Officer

Copy forwarded for information:-

1. The Conservator of Forests (T), Yavatmal.
2. Divisional Forest Officer, Yavatmal Division, Yavatmal.
3. Executive Engineer, EHV Project Division, MSETCL, Amravati, Dist. Amravati.

महाराष्ट्र वन विभाग

Government of Maharashtra

Office of the Conservator of Forest (T) Yavatmal

"Van Bhavan" 2nd Floor, Matru Charch Road, Yavatmal -445001

Telephone No. 07232-242894 / 242194 E-Mail id --conytlyvt@gmail.com/ccftyavatmal@mahaforest.gov.in

No. CF(T)/Desk-10/FCA/ 264 **/2025-26** **Yavatmal, Dated-** 04 ~~Jun,~~ July 2025.

To,

The Additional Principal Chief Conservator of Forest,
& Nodal Officer, M.S. Nagpur.

Subject :- Diversion of 0.45 ha. Forest land in favour of EHV Project Division MSETCL, Amravati for construction of LILO on 132 KV Yavatmal- Yavatmal MIDC line for 132 KV Darwha sub-station Transmission line in District Yavatmal in the State of Maharashtra regarding.

Reference:-
1. Your Office letter No.Desk-17/FCA-SI/P.I.D-37560/Yavatmal/2152 Date 24/12/2024.
2. Dy. Conservator of Forest (T) Yavatmal office letter No./Survey/194, Date-14.05.2025

Sir,

Vide reference letter No. 1 query was raised on the Proposal for Diversion of 0.45 ha. forest land in favour of EHV Project Division MSETCL, Amravati for construction of LILO on 132 KV Yavatmal-Yavatmal MIDC line for 132 KV Darwha sub-station Transmission line in Taluka- Darwha, District Yavatmal .

Vide reference letter no. 2 Dy. Conservator of Forest (T) Yavatmal has submitted compliance for the queries as follows-

Sr. No.	Query	Compliance
i.	Complete KML file showing the To' and 'Fro' passage including 98.0991 ha Non-Forest land involved in the project shall be uploaded/ submitted along with layout map.	The complete KML file showing the To' and 'Fro' passage including 98.0991 ha Non-Forest land involved in the project is uploaded /submitted along with layout map as **Annexure I.**
ii.	As per Chapter-9 in the consolidated handbook of guidelines under Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 the Width of Right of Way prescribed for 132 KV line is 27 meter whereas the Width of Right of Way of KML file of proposed transmission line on forest land proposed for diversion is found to be 26 meter. Therefore, correct KML file of the proposed transmission line over forest land shall be uploaded online.	Corrected KML file of the proposed transmission line over forest land is uploaded online and also given in the soft copy uploaded on a CD. **Annexure –II.**

1336
11/07/25

Sr. No.	Query	Compliance
iii.	As reported 132 KV Darwha substation is technically surveyed and approved in year 2008 avoiding any forest interception that time. But the project is near completion in 2018. During this period some of the Government land is converted into forest land through which route passes. Therefore, the State Govt. shall re-examine and confirm that a consolidated proposal for the complete section of the transmission line falling in the State has been included in the instant forest diversion proposal.	132 KV Darwha substation is technically surveyed and approved in year 2008 avoiding any forest interception that time. But the project is near completion in 2018. During this period some of the Government land is converted into forest land through which route passes. The user agency has confirmed that consolidated proposal for the complete section of the transmission line is included in the instant proposal. Encl.:- The Statement of Gut no./Survey nos. of private agricultural land where the transmission line route passes including tower location is enclosed as. **Annexure –III.**
iv.	As depicted through satellite imagery, transmission line has already been established and passing through the proposed forest land. Therefore, it needs clarification along with relevant details whether the project has been completed and services have been resumed or otherwise.	According to the user agency the work of LILO line of 132 kV Yavatmal-Yavatmal MIDC DCDC line for 132 kV Darwha S/Stn is completed in all respect and the line is in charged condition since dt: 31.12.2019
v.	Keeping in view of the Chapter 10, Para 10.1 of the consolidated handbook of guidelines issued under Van (Sanrakshan Evam Samvardhan) Adhiniyam- 1980, the Minimum clearance between conductor and Trees has been prescribed as 4 meters whereas it has been reported that overhead conductors at a height of 7 meter above the ground. Therefore, it needs clarification whether the minimum clearance between conductor and trees have been maintained or otherwise	According to the user agency the Minimum clearance required between 132 KV line conductor and any object as per IE rules 1956 is 3.05 meter. All the Trees falling under the transmission belt of 132 kV line viz. 27 meters have been cut to maintain the minimum clearance between conductor & trees throughout the route of 132 kV line. Also, the minimum clearance required between overhead conductor and ground is required 6.1 m as per IE rules 1956, which is maintained.

Sr. No.	Query	Compliance
vi	Keeping in view of the Chapter 10, Para 10.5 of the consolidated handbook of guidelines issued under Van (Sanrakshan Evam Samvardhan) Adhiniyam- 1980, the KML file of identified degraded forest areas of not less than one ha for carrying out plantation of dwarf species (preferably medicinal plants) shall be uploaded.	No separate degraded forest area over one hector has been identified for carrying out plantation of dwarf species as area of patch is more than 0.10 ha. According to the user agency plantation of dwarf species (preferably medicinal plants) on forest area of 0.45 Ha. accomodated in single patch, within ROW below the transmission line conductors will be carried out at the cost of User Agency.
vii.	It has been reported that the Extra High Voltage electricity transmission line project transmitting power in Yavatmal district from 132KV Yavatmal substation to 132KV Darwha substation was approved in the year 2008. However, the detail of the scheme along with technical approval of the project has not been submitted with the proposal The same needs submission.	According to the user agency extra High Voltage electricity transmission line project transmitting power in Yavatmal district from 132KV Yavatmal substation to 132KV Darwha substation survey was approved in the year 2008. However, the project scheme was approved by the Board of Directors Board Resolution MBR 119/12 in the year 05/08/2017. The copy of MBR No. 119/12 is enclosed as **Annexure-IV**.
viii.	As most of work has already be completed in the proposed forest land but it needs clarification whether the user agency had identified three alternative sites before starting the work on the proposed forest land. The justification along with the KML file in this regard needs submission.	For the above said line, three alternative routes were identified by the user Agency during survey of the line in the year 2008. In all three routes, forest lands were involved. But user Agency was approved the most feasible route having minimum area of forest land for laying of the line.
ix.	The State Govt. submitted the instant proposal as diversion of 0.45 ha forest land whereas the proposal involves violation. Therefore, it needs clarification whether the proposal is of regularization of encroachment or ex-post facto approval under the Adhiniyam, 1980.	The instant proposal is for ex-post facto approval under the Adhiniyam-1980.
x.	Satellite imagery dated 03.01.2024 shows that the Pre-plantation work within the proposed CA land is completed. This needs justification.	Dy. Conservator of Forest, Yavatmal submitted that the Range forest officer visited the proposed CA land with his staff

Sr. No.	Query	Compliance
		on dated 7/03/2025 and submitted spot verification report stating that the land is reserve forest land in Compt No.112 and that no pre-plantation work have been carried out till date.
xi.	The State Govt. shall ensure that the user agency has proposed to establish the transmission lines in the forest land as per the Chapter 10, Para 10.1 of the Consolidated Handbook of the Guidelines issued by the Ministry on dated 29.12.2023 under the Van (Sanrakshan Evam Samvardhan) Rules 2023.	The user agency has return that it will ensure to establish the transmission line in the forest land as per the Chapter 10, Para 10.1 of the Consolidated Handbook of the Guidelines issued by the Ministry on dated 29.12.2023 under the Van (Sanrakshan Evam Samvardhan) Rules 2023.

Submitted the compliance for kind perusal and necessary action.

Encl.: As above.

(M. Adarsh Reddy)
Conservator of Forest (T.)
Yavatmal Circle

Copy to :- Deputy Conservator Forest (T) Yavatmal for Information.
Copy to :- Executive Engineer, EHV Project Division, MSETCL, Amravati for Information.

"वृक्षवल्ली आम्हा सोयरे वनचरे"
ISO 9001:2015

सत्यमेव जयते
Government of Maharashtra
Office of the Deputy Conservator of Forest (T) Yavatmal
"Vanbhavan" Administrative Building, 1st Floor, Church Road, Civil Line, Yavatmal
Email ID :- dycfyavatmal@mahaforest.gov.in ; dycfym[illegible] Ph. (07232) 242453

वनसंरक्षक (प्रा) कार्यालय यवतमाळ
आ.क्र.व दि. 991/15-5-25
कक्ष
वनसंरक्षक (प्रा.) यवतमाळ
वि.व.अ.(नियोजन)
प्रशासकीय अधिकारी

Outword No./DCF(Y)/Survey/ 194 /Yavatmal -445001 Dated - 14 /05/2025

15/05/25

To,

Conservator of Forest (T.)
Yavatmal.

Sub.: Diversion of 0.45 ha. forest land in favour of EHV Project Division MSETCL, Amravati for construction of LILO on 132 KV Yavatmal- Yavamtl MIDC line for 132 KV Darwha sub station Transmission line in Taluka-Darwha,District Yavatmal in the State of Maharashtra regarding.

Ref.: 1) A.P.C.C.F. & Nodal Officer M.S.Nagpur Letter No. /Desk--17/FCA-S1/PID-37560 Yavatmal/2152 Date 24/12/2024.
2) Your Office letter no./CF(Y)/desk-10/Conservation/2618/dt 03/01/2025.
3)This office letter no./DCF (Y)/Survey/3451 Date05/02/2025.
4)Executive Engineer, EHV Project Division, MSETCL Amravati Letter no./ MSETCL/ EE/EHV/ Project Din/Amravati/Tech/No.00271 Date 11/02/2025.

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With reference to the subject cited above, under reference letter no.2 this office has to submit the compliance report about the 11 points raised by the Central Government to your office.

In connection with that the user agency have submitted the compliance report of 11 points raised by Central Government.

So, the copy of compliance in triplicate report is attached herewith for further necessary action please.

Sr. No.	Query	Compliance
i.	Complete KML file showing the To' and 'Fro' passage including 98.0991 ha Non-Forest land involved in the project shall be uploaded/ submitted along with layout map.	The complete KML file showing the To' and 'Fro' passage including 98.0991 ha Non-Forest land involved in the project is uploaded /submitted along with layout map as **Annexure I.**
ii.	As per Chapter-9 in the consolidated handbook of guidelines under Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 the Width of Right of Way prescribed for 132 KV line is 27 meter whereas the Width of Right of Way of KML file of proposed transmission line on forest land proposed for diversion is found to be 26 meter. Therefore, correct KML file of the proposed transmission line over forest land shall be uploaded online.	Corrected KML file of the proposed transmission line over forest land is uploaded online and also given in the soft copy uploaded on a CD. **Annexure –II.**
iii.	As reported 132 KV Darwha substation is technically surveyed and approved in year 2008 avoiding any forest interception that time. But the project is near completion in 2018. During this period some of the Government land is converted into forest land through which route passes. Therefore, the State Govt. shall re-examine and confirm that a consolidated proposal for the complete section of the transmission line falling in the State has been included in the instant forest diversion proposal.	132 KV Darwha substation is technically surveyed and approved in year 2008 avoiding any forest interception that time. But the project is near completion in 2018. During this period some of the Government land is converted into forest land through which route passes. Therefore, as a user agency it is confirmed that consolidated proposal for the complete section of the transmission line is included in the instant

Sr. No.	Query	Compliance
		proposal. Encl.:- The Statement of Gut no./Survey nos. of private agricultural land where the transmission line route passes including tower placed is enclosed as. **Annexure –III.**
iv.	As depicted through satellite imagery, transmission line has already been established and passing through the proposed forest land. Therefore, it needs clarification along with relevant details whether the project has been completed and services have been resumed or otherwise.	The work of LILO line of 132 kV Yavatmal-Yavatmal MIDC DCDC line for 132 kV Darwha S/Stn is completed in all respect and the line is in charged condition since dt: 31.12.2019
v.	Keeping in view of the Chapter 10, Para 10.1 of the consolidated handbook of guidelines issued under Van (Sanrakshan evam Samvardhan) Adhiniyam- 1980, the Minimum clearance between conductor and Trees has been prescribed as 4 meters whereas it has been reported that overhead conductors at a height of 7 meter above the ground. Therefore, it needs clarification whether the minimum clearance between conductor and trees have been maintained or otherwise	The Minimum clearance required between 132 KV line conductor and any object as per IE rules 1956 is 3.05 meter. All the Trees falling under the transmission belt of 132 kV line viz: 27 meters have been cut to maintain the minimum clearance between conductor & trees throughout the route of 132 kV line. Also, the minimum clearance between overhead conductor and ground is required as 6.1 m as per IE rules 1956, which is maintained.
vi	Keeping in view of the Chapter 10, Para 10.5 of the consolidated handbook of guidelines issued under Van (Sanrakshan evam Samvardhan) Adhiniyam- 1980, the KML file of identified degraded forest areas of not less than one ha for carrying out plantation of dwarf species (preferably medicinal plants) shall be uploaded.	No separate degraded forest area not less than one hector has been identified for carrying out plantation of dwarf species as area of patch is more than 0.10 ha. Plantation of dwarf species (preferably medicinal plants) on forest area of 0.45 Ha. Accommodated in single patch, within ROW below the transmission line conductors will be carried out at the cost of User Agency.
vii.	It has been reported that the Extra High Voltage electricity transmission line project transmitting power in Yavatmal district from 132KV Yavatmal substation to 132KV Darwha substation was approved in the year 2008. However, the details of the scheme along with technical approval of the project has not been submitted with the proposal The same needs submission.	Extra High Voltage electricity transmission line project transmitting power in Yavatmal district from 132KV Yavatmal substation to 132KV Darwha substation survey was approved in the year 2008. However, the project scheme was approved by the Board of Directors Board Resolution MBR 119/12 in the year 05/08/2017. The copy of MBR No. 119/12 is enclosed as **Annexure-IV.**
viii.	As most of work has already be completed in the proposed forest land but it needs clarification whether the user agency had identified three alternative sites before starting the work on the proposed forest land. The justification along with the KML file in this regard needs submission.	For the above said line, three alternative routes were identified by the user Agency during survey of the line in the year 2008. In all three routes, forest lands were involved. **But user Agency was approved the most feasible route having minimum area of forest land for laying of the line.**

Sr. No.	Query	Compliance
ix.	The State Govt. submitted the instant proposal as diversion of 0.45 ha forest land whereas the proposal involves violation. Therefore, it needs clarification whether the proposal is of regularization of encroachment or ex-post facto approval under the Adhiniyam, 1980.	The instant proposal is for ex-post facto approval under the Adhiniyam-1980.
x.	Satellite imagery dated 03.01.2024 shows that the Pre-plantation work within the proposed CA land is completed. This needs justification.	Range forest officer visited the proposed CA land with his staff on dated 7/03/2025 and submitted spot verification report stating that the land is reserve forest land having compt no. 112 and there is no pre-plantation work have been carried out till today.
xi.	The State Govt. shall ensure that the user agency has proposed to establish the transmission lines in the forest land as per the Chapter 10, Para 10.1 of the Consolidated Handbook of the Guidelines issued by the Ministry on dated 29.12.2023 under the Van (Sanrakshan evam Samvardhan) Rules 2023.	The user agency ensure to establish the transmission line in the forest land as per the Chapter 10, Para 10.1 of the Consolidated Handbook of the Guidelines issued by the Ministry on dated 29.12.2023 under the Van (Sanrakshan evam Samvardhan) Rules 2023.

(Dhananjay Waybhase I.F.S.)
Dy. Conservator of Forest
Yavatmal Division,Yavatmal

Copy to : Executive Engineer, EHV Project Division, MSETCL Amravati for information.

(4)

MAHATRANSCO

Maharashtra State Electricity Transmission Co. Ltd

(CIN No. U40109MH2005SGC153646)

14 FEB 2025

From	To,
Executive Engineer, EHV Project Division, Prakash Sarita, Administrative Building, A-Wing, Ground Floor, 220KV substation, Morshi road, Amravati – 444 603 Email :- ee1620@mahatransco.in Phone No. 0721 - 2669168	Dy. Conservator of Forests, Yavatmal, Maharashtra State. उपवनसंरक्षक यवतमाळ वनविभाग,यवतमाळ आवक क्र. 7683 दिनांक 14/2/25

Ref.: MSETCL/EE/EHV/Project Din./Amravati/Tech/ 002711 Date : 11 FEB 2025

Sub.: Proposal seeking Ex-post facto approval under Section 2 (1) (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 for diversion of 0.45 ha forest land in favour of EHV Project Division M.S.E.T.C.L. Amravati for construction of LILO on 132 KV Yavatmal - Yavatmal MIDC line for 132 KV Darwha Sub-Station Transmission Line in Yavatmal District in the State of Maharashtra (Online No. FP/MH/TRANS/37560/2018) ------ Submission of forest compliance thereof.

Ref.: 1.Government of India Ministry of Environment, Forests and Climate Change (Forest Conservation Division).dtd.23/12.2024.
2. Nodal Nagpur
3. Govt. of Maharashtra letter.
4. क्रमांक/उवसं. (य)/सर्व्हे/३४५१/२०२४-२५ यवतमाळ दिनांक. ०५/०२/२०२५

With reference to above subject, please find detailed compliance for MoEFCC query letters as per ref. no. (1) & (4) above.

Sr. No.	Query	Compliance
i.	Complete KML file showing the To' and 'Fro' passage including 98.0991 ha Non-Forest land involved in the project shall be uploaded/ submitted along with layout map.	The complete KML file showing the To' and 'Fro' passage including 98.0991 ha Non-Forest land involved in the project is uploaded /submitted along with layout map as **Annexure I.**
ii.	As per Chapter-9 in the consolidated handbook of guidelines under Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 the Width of Right of Way prescribed for 132 KV line is 27 meter whereas the Width of Right of Way of KML file of proposed transmission line on forest land proposed for diversion is found to be 26 meter. Therefore, correct KML file of the proposed transmission line over forest land shall be uploaded online.	Corrected KML file of the proposed transmission line over forest land is uploaded online and also given in the soft copy uploaded on a CD. **Annexure –II.**
iii.	As reported 132 KV Darwha substation is technically surveyed and approved in year 2008 avoiding any forest interception that time. But the project is near completion in 2018. During this period some of the Government land is converted into forest land through which route passes. Therefore, the State Govt. shall re-examine and confirm that a consolidated proposal for the complete section of the transmission line falling in the State has been included in the instant forest diversion proposal.	132 KV Darwha substation is technically surveyed and approved in year 2008 avoiding any forest interception that time. But the project is near completion in 2018. During this period some of the Government land is converted into forest land through which route passes. Therefore, as a user agency it is confirmed that consolidated proposal for the complete section of the transmission line is included in the instant proposal. Encl.:- The Statement of Gut no./Survey nos. of private agricultural land where the

		transmission line route passes including tower placed is enclosed as. **Annexure –III.**
iv.	As depicted through satellite imagery, transmission line has already been established and passing through the proposed forest land. Therefore, it needs clarification along with relevant details whether the project has been completed and services have been resumed or otherwise.	The work of LILO line of 132 kV Yavatmal-Yavatmal MIDC DCDC line for 132 kV Darwha S/Stn is completed in all respect and the line is in charged condition since dt: 31.12.2019
v.	Keeping in view of the Chapter 10, Para 10.1 of the consolidated handbook of guidelines issued under Van (Sanrakshan evam Samvardhan) Adhiniyam- 1980, the Minimum clearance between conductor and Trees has been prescribed as 4 meters whereas it has been reported that overhead conductors at a height of 7 meter above the ground. Therefore, it needs clarification whether the minimum clearance between conductor and trees have been maintained or otherwise	The Minimum clearance required between 132 KV line conductor and any object as per IE rules 1956 is 3.05 meter. All the Trees falling under the transmission belt of 132 kV line viz. 27 meters have been cut to maintain the minimum clearance between conductor & trees throughout the route of 132 kV line. Also, the minimum clearance between overhead conductor and ground is required as 6.1 m as per IE rules 1956, which is maintained.
vi	Keeping in view of the Chapter 10, Para 10.5 of the consolidated handbook of guidelines issued under Van (Sanrakshan evam Samvardhan) Adhiniyam- 1980, the KML file of identified degraded forest areas of not less than one ha for carrying out plantation of dwarf species (preferably medicinal plants) shall be uploaded.	No separate degraded forest area not less than one hector has been identified for carrying out plantation of dwarf species as area of patch is more than 0.10 ha. Plantation of dwarf species (preferably medicinal plants) on forest area of 0.45 Ha. Accommodated in single patch, within ROW below the transmission line conductors will be carried out at the cost of User Agency.
vii.	It has been reported that the Extra High Voltage electricity transmission line project transmitting power in Yavatmal district from 132KV Yavatmal substation to 132KV Darwha substation was approved in the year 2008. However, the details of the scheme along with technical approval of the project has not been submitted with the proposal The same needs submission.	Extra High Voltage electricity transmission line project transmitting power in Yavatmal district from 132KV Yavatmal substation to 132KV Darwha substation survey was approved in the year 2008. However, the project scheme was approved by the Board of Directors Board Resolution MBR 119/12 in the year 05/08/2017. The copy of MBR No. 119/12 is enclosed as **Annexure-IV.**
viii.	As most of work has already be completed in the proposed forest land but it needs clarification whether the user agency had identified three alternative sites before starting the work on the proposed forest land. The justification along with the KML file in this regard needs submission.	For the above said line, three alternative routes were identified by the user Agency during survey of the line in the year 2008. In all three routes, forest lands were involved. **But user Agency was approved the most feasible route having minimum area of forest land for laying of the line.**
ix.	The State Govt. submitted the instant proposal as diversion of 0.45 ha forest land whereas the proposal involves violation. Therefore, it needs clarification whether the proposal is of regularization of encroachment or ex-post facto approval under the Adhiniyam, 1980.	The instant proposal is for ex-post facto approval under the Adhiniyam-1980.
x.	Satellite imagery dated 03.01.2024 shows that the Pre-plantation work within the proposed CA land is completed. This needs justification.	A joint visit of MSETCL and forest Authorities is required at proposed CA Land.

xi.	The State Govt. shall ensure that the user agency has proposed to establish the transmission lines in the forest land as per the Chapter 10, Para 10.1 of the Consolidated Handbook of the Guidelines issued by the Ministry on dated 29.12.2023 under the Van (Sanrakshan evam Samvardhan) Rules 2023.	The user agency ensure to establish the transmission line in the forest land as per the Chapter 10, Para 10.1 of the Consolidated Handbook of the Guidelines issued by the Ministry on dated 29.12.2023 under the Van (Sanrakshan evam Samvardhan) Rules 2023.

Submitted for information and necessary action please.

Encl.: As above.

Yours Faithfully

(Jayant Waghmare)
Executive Engineer,
EHV Project Division, MSETCL,
Amravati.

Copy to s. w. r to:

1. Superintending Engineer, EHV Project Circle, Amravati.

Copy to:-

1. The Addl. Ex. Engineer, S & I Sub Division, Amravati.

Government of India
Ministry of Environment, Forest and Climate Change
(Forest Conservation Division)
****

Indira Paryavaran Bhawan,
Jor Bag Road, Aliganj,
New Delhi – 110003
Dated: As per E-sign

To,

The Principal Secretary (Forests),
Government of Maharashtra,
Mumbai.

Subject: Proposal seeking Ex-post facto approval under Section 2 (1) (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 for diversion of 0.45 ha forest land in favour of EHV Project Division M.S.E.T.C.L. Amravati for construction of LILO on 132 KV Yavatmal - Yavatmal MIDC line for 132 KV Darwha Sub-Station Transmission Line in Yavatmal District in the State of Maharashtra (Online No. FP/MH/TRANS/37560/2018) - regarding.

Madam/Sir,

I am directed to refer to the Government of Maharashtra letter no. FLD 3222/CR-213/F-10 dated 14.09.2022 which has been forwarded by the Regional Office, Nagpur as per Sub Rule 2 (v) of Rule 10 of the Van (Sanrakshan Evam Samvardhan) Rules 2023. After examining the proposal, the following shortcomings have been observed:

i. Complete KML file showing the 'To' and 'Fro' passage including 98.0991 ha Non-Forest land involved in the project shall be uploaded/ submitted along with layout map.
ii. As per Chapter-9 in the consolidated handbook of guidelines under Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 the Width of Right of Way prescribed for 132 KV line is 27 meter whereas the Width of Right of Way of KML file of proposed transmission line on forest land proposed for diversion is found to be 26 meter. Therefore, correct KML file of the proposed transmission line over forest land shall be uploaded online.
iii. As reported 132 KV Darwha substation is technically surveyed and approved in year 2008 avoiding any forest interception that time. But the project is near completion in 2018. During this period some of the Government land is converted into forest land through which route passes. Therefore, the State Govt. shall re-examine and confirm that a consolidated proposal for the complete section of the transmission line falling in the State has been included in the instant forest diversion proposal.
iv. As depicted through satellite imagery, transmission line has already been established and passing through the proposed forest land. Therefore, it needs clarification along with relevant details whether the project has been completed and services have been resumed or otherwise.

Nagpur;
4. User Agency;
5. Monitoring Cell, FC Division, MoEF&CC, New Delhi for uploading on PARIVESH portal.

9

महाराष्ट्र शासन

ISO 9001:2015

उपवनसंरक्षक, यवतमाळ वनविभाग, यवतमाळ यांचे कार्यालय

"वनभवन" प्रशासकीय इमारत, पोलिस मदान, यवतमाळ
Email ID :- dycfyavatmal@mahaforest.gov.in ; dycfym@gmail.com
Ph.(07232) 242...

क्रमांक/उवसं.(य)/सर्वे / 3451 /२०२४-२५ यवतमाळ दिनांक:- 5 /०२/२०२५

प्रति,

कार्यकारी अभियंता,
अ.उ.दा. प्रकल्प विभाग,
म.रा.वि.पा.कं.मर्या.अमरावती.

विषय:- Diversion of ०.४५ ha. forest land in favour of EHV Project Division MSETCL, Amravati for construction of LILO on १३२ KV Yavatmal- Yavamtl MIDC line for १३२ KV Darwha sub station Transmission line in Taluka-Darwha,District Yavatmal in the State of Maharashtra regarding.

संदर्भ:- 1)मा.अपर प्रधान मुख्य वनसंरक्षक व केंद्रस्थ अधिकारी, म.रा. नागपुर यांचे कार्यालयीन पत्र क्र. /कक्ष-17/ FCA-S1/PID-37560/Yavatmal/2152, दिनांक 24/12/2024.
2) मा.वनसंरक्षक (प्रादे.), यवतमाळ यांचे पत्र क्र./वसं(य)/कक्ष-10/वसं/2618 दि.03/01/2025.

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उपरोक्त संदर्भीय पत्राचे अनुषंगाने आपणांस कळविण्यात येते की, संदर्भीय पत्र क्र. १ अन्वये, केंद्र शासनाने उपस्थित केलेल्या ११ मुद्यांची माहिती आंग्ल (इंग्रजी) भाषेत या कार्यालयास सादर करणेबाबत कळविले आहे. सोबत केंद्र शासनाच्या संदर्भीय पत्राची प्रत पुढील कार्यवाहीसाठी यासोबत पाठविण्यांत येत आहे.

त्याअनुषंगाने 11 मुद्यांची पुर्तता करुन अहवाल 5 प्रतीत या कार्यालयास सादर करावा. जेणेकरुन पुढील कार्यवाही करीता वरीष्ठ कार्यालयास अहवाल सादर करणे सोईचे होईल.

सहपत्र :- वरील प्रमाणे संदर्भीय पत्र क्र. १ ची छायांकीत प्रत

(धनंजय वायभासे,भा.व.से.)
उपवनसंरक्षक
यवतमाळ वनविभाग यवतमाळ

प्रतिलिपी :- मा.वनसंरक्षक (प्रा.) यवतमाळ यांना माहितीस सविनय सादर.

ANNEXURE-I

THE COMPLETE KML FILE SHOWING 'TO' & 'FRO' PASSAGE WITH LAYOUT MAP IS ENCLOSED IN CD

Contruction of LILO on 132 kV Yavatmal-Yavatmal MIDC line for 132 kV Darwha Sub-Station

Satement of Villagewise Non-Forest Area

Sr. No.	Name of Village	Tahsil	Dist	Length of Line in (m)		Width	Area in (sqm)		Area in (Ha)	
				Forest	Non-Forest		Forest	Non-Forest	Forest	Non-Forest
1	Kasbe Darwah	Darwha	Yavatmal		1920.32	27		51848.64		5.184864
2	Bagewadi	Darwha	Yavatmal		2432.74	27		65683.98		6.568398
3	Kinhiwalgi	Darwha	Yavatmal		3653.3	27		98639.1		9.86391
4	Waghul	Darwha	Yavatmal		665.21	27		17960.67		1.796067
5	Dudhgaon	Darwha	Yavatmal		3135.61	27		84661.47		8.466147
6	Ujona	Darwha	Yavatmal		396	27		10692		1.0692
7	Pandhurna	Darwha	Yavatmal	167	1716.47	27	4509	46344.69	0.4509	4.634469
8	Morgvhan	Darwha	Yavatmal		1194	27		32238		3.2238
9	Ladkhed	Darwha	Yavatmal		1593.35	27		43020.45		4.302045
10	Ganeshpur	Darwha	Yavatmal		442.44	27		11945.88		1.194588
11	Ladkhed	Darwha	Yavatmal		1032.44	27		27875.88		2.787588
12	Nandgavhan	Darwha	Yavatmal		2172.65	27		58661.55		5.866155
13	Kamathwada	Darwha	Yavatmal		1309.39	27		35353.53		3.535353
14	Linga	Ner	Yavatmal		1310.3	27		35378.1		3.53781
15	Tiwasa	Yavatmal	Yavatmal		1879	27		50733		5.0733
16	Varjai	Yavatmal	Yavatmal		1691.46	27		45669.42		4.566942
17	Jamwadi	Yavatmal	Yavatmal		1823.31	27		49229.37		4.922937
18	Echori	Yavatmal	Yavatmal		4550	27		125550		12.555
19	Kinhi	Yavatmal	Yavatmal		2073	27		55971		5.5971
									Total	**94.745673**

Executive Engineer
E.H.V. Projcets Division,
M.S.E.T.C.L. Amravati.

Dy. Conservator of Forest
Yavatmal Dn. Yavatmal

ANNEXURE-II

THE CORRECT KML FILE HAVING 27 M WIDTH OF ROW IS ENCLOSED IN CD

ANNEXURE-III

THE KML FILE SHOWING TOWER POINTS IS ENCLOSED IN CD

MAHATRANSCO
Maharashtra State Electricity Transmission Co.Ltd.

MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO.LTD

CIN NO.U40109MH2005SGC153646

THE STATEMENT OF GUT NO/SURVEY NO.OF PRIVATE AGRICULTURAL LAND WHEAR THE TRANSMISSION LINE ROUTE PASSES

Sr. No.	Tower No.	Type of Tower	Name of cultivators With Add.	Sy No.	Tq	Village
1	1	MS+0	Sanjay Radheshyam Tiwari	156/2/A	Darwha	Darwha
2	2	MR+3	Sadhana Sohanraj Kothari	169/1/B/2	Darwha	Darwha
3	3	MS+0	Vandana Uttam Rathod	171/2	Darwha	Darwha
4	3-4		Hasin Ahmad Khan Ebrahim Khan	171/1	Darwha-Kha 2	Darwha
5	4	MS+3	Juned Pashakhan Mustak Ahmad Khan	167/1/B	Darwha	Darwha
6	5	MS+3	Mehamud Khan Gulab Khan Mu	170/3	Darwha	Darwha
7	5-6		Mosinkhan Mohemudkhan	170/3	Darwha	Darwha
8			Owaisikarni Abdul Kadar	170/3	Darwha	Darwha
9			Nanda Brahmadev Bansode	162/1	Darwha	Darwha
10	6	S+3	Ashok Laxman Nimkar	162/3	Darwha	Darwha
11	6-7		Ashok Laxman Nimkar (Road)	162/2	Darwha	Darwha
12			Abhijit Singh Zod	163/2/B	Darwha	Darwha
13	7	Q+3	Vimal Bhaskar Badukale	163/2/A	Darwha	Darwha
14	7-8		Pawan Shivcharan Jaiswal	208/5	Darwha	Bagwadi
15			Ashok Shivcharan Jaiswal	208/2	Darwha	Bagwadi
16			Nayan Shivcharan Jaiswal	208/4	Darwha	Bagwadi
17			Shivcharan Mohanlal Jaiswal	208/1	Darwha	Bagwadi
18			Chandan Shivcharan Jaiswal	208/4	Darwha	Bagwadi
19	8	P+0	Abdul Gaffar Abdul Sattar	207	Darwha	Bagwadi
20	8-9		Bhaiyalal Ramjan Chaudhari	171	Darwha	Bagwadi
21			Abdul Kadar Hazi Abdul Sattar	204	Darwha	Bagwadi
22	9	P+3	Sunita Suresh Chafekar	168	Darwha	Bagwadi
23	9-10		Pramila Tukaram Chafekar	166	Darwha	Bagwadi
24			Duragaprasad Wasudevrao Pande	160	Darwha	Darwha
25	10	P+6	Tarabai Duragaprasad Pande	173	Darwha	Darwha
26	10-11		Minabai Bhaupendra Popat	176	Darwha	Bagwadi
27			Nilkanth Mahadevrao Chavare	175	Darwha	Bagwadi
28			Gajanan Shyamrav Bambal	176	Darwha	Bagwadi
29	11	S+6	Prakash M jirapure	177	Bagwadi	Darwha
30	11-12		Chotibai Ramjaan Luche	156/2	Bagwadi	Darwha
31	12	S+9	Rajabhau M jirapure	151/1	Bagwadi	Darwha
32	12-13		Mohan Laxman Kale	152	Bagwadi	Darwha
33			Dasrath jayram Jire	148/4	Saikhed	Darwha
34			Bhimaro Govinda Kale	147	Bagwadi	Darwha
35			Shitabai Babarao Shelake	149	Bagwadi	Darwha
36	13	Q+3	Kishor Dattatray Bagal	144/1	Darwha	Bagwadi
37	13-14		Anant A Akhare	134	Darwha	Bagwadi
38			Janardan Gopal Wankhade	131	Darwha	Bagwadi
39			Ganpatrao Goapl Wankhade		Darwha	Bagwadi
40	14	P+3	Manikrao Gopal Wankhade	131	Darwha	Saykheda
41	14-15		Prabhkar Sitaram Kale	128	Darwha	Bagwadi
42			Vandanbai Ashok Kale	129	Darwha	Bagwadi
43			Umesh Namdevrao Dhembe	127	Darwha	Bagwadi
44			Usha Namdevrao Dhembe	130	Darwha	Bagwadi
45	15	Q+3	Kishor Babarao Jire	226	Darwha	Saykheda

Executive Engineer
E.H.V. Projcets Division,
M.S.E.T.C.L. Amravati.

Sr. No.	Tower No.	Type of Tower	Name of cultivators With Add.	Sy No.	Tq	Village
46	15-16		Madhukar Mahadu Jadhav	227/1	Darwha	Kinhiwalgi
47			Akash Shankar Devkar	225	Darwha	Kinhiwalgi
48	16	P+0	Vishnu b Jadhao	227/2	Darwha	Kinhiwalgi
49	16-17		Manik Balaji Jadhao		Darwha	Kinhiwalgi
50			Panjab Balaji Jadhao		Darwha	Kinhiwalgi
51			Ravindra S Mate	220/1	Darwha	Kinhiwalgi
52			Rahul S Mate	219	Darwha	Kinhiwalgi
53	17	P+0	Ravindra Mahadeo Ughade	216	Drawha	Kinhiwalgi
54	17-18		Aatik Ahmad M Sadik	217	Drawha	Kinhiwalgi
55			Ukandrao Vyankat Chavhan	212	Darwha	Kinhiwalgi
56	18	P+0	Kavdu Thavraoji Ade	213/2	Darwha	Kinhiwalgi
57	18-19		Vilas Thavara Ade	237	Darwha	Kinhiwalgi
58	19	P+0	Tukaram Kisan Tuljapure /Vimalbai	210	Drawha	Kinhiwalgi
59	19-20		Dnyandev Pandit Ughade	258/1	Darwha	Kinhiwalgi
60			Pandurang Balaji Ughade	209	Darwha	Kinhiwalgi
61	20	Q+3	Amol Manikrao Ughade	208	Drawha	Kinhiwalgi
62	21	P+3	Mangla Sukhdev Dube	199	Drawha	Kinhiwalgi
63	21-22		Dilip Sitaram Jadhao	197	Darwha	Kinhiwalgi
64			Vijay Pundalik Harane	198	Darwha	Kinhiwalgi
65			Ramdas Nathuji Kamble	198/A	Darwha	Kinhiwalgi
66	22	P+3	Surekha S Dawedar	260	Drawha	Kinhiwalgi
67	22-23		Sagarbai Dilip Jadhao	192	Darwha	Kinhiwalgi
68	23	P+3	Sanjay Devrao Wankhade	189	Drawha	Kinhiwalgi
69	23-24		Manoj Devrao Wankhade	189	Drawha	Kinhiwalgi
70			Sanjay Janardhan Naikwad	187	Drawha	Kinhiwalgi
71		P+3	Dilip Pandurang Patil	183	Darwha	Kinhiwalgi
72	24A	P+3	Dattatray Manhor Puri	314	Drawha	Kinhiwalgi
73	24 A-24	P+0	Prakash Kisan Raut	176/1/C	Drawha	Kinhiwalgi
74			Raju Pandurang Patil	314	Darwha	Kinhiwalgi
75	24	P+3	Gaurav Arun Mirase	182	Drawha	Kinhiwalgi
76	24-25		Sukhdev Barkaji Dayedar	176/2	Drawha	Kinhiwalgi
77	25	Q+0	Prakash Kisan Raut (Road)	176/1/C	Drawha	Kinhiwalgi
78	25-26		Santosh Bapurao Rodge	173	Drawha	Kinhiwalgi
79	26	P+6	Vasnta M Jadhao	172	Darwha	Kinhiwalgi
80	27	P+3	Santosh Namdev Jadhao Manju Santosh	2	Darwha	Waghod,
81	27-28		Hitesh Udaysingh Rathod	8/1	Darwha	Waghol
82			Devidas Ganpat Punase	7	Darwha	Waghul
83	28	P+3	Lalsing M Rathod	6	Darwha	Waghul
84	28-29		Afsar Khan Niyamat Khan	11	Darwha	Waghol
85	29	P+3	Vakil Khan Nyamt Khan Pathan	10	Darwha	Waghol
86	29-30		Shravan Panjabrao Gayakwad	10	Darwha	Waghol
87	30	Q+0	Gulab Shkharam Ingale	183	Darwha	Dudhgaon
88	30-31		Kiran Gulabrao Ingale	176	Darwha	Dudhgaon
89	30-31		Chotekhan Ashudaullakhan Pathan	177	Darwha	Dudhgaon
90	31	P+3	Chotekhan Ashudaullakhan Pathan	178	Darwha	Dudhgaon
91	32	P+3	Govindrao Bhikaji Gaikwad	172/3	Darwha	Dudhgaon
92	32-33		Dipak Manik Gawali	172/2	Darwha	Dudhgaon
93			Sukhdev Devrao Gaikwad	169/1	Darwha	Dudhgaon
94	33	P+6	Khurshidbano Khalil Ahemad Patel	169/1	Darwha	Dudhgaon
95	33		Tara Duraga Ganhalewar	169/1	Darwha	Dudhgaon
96			Bharat Yasvantrao Dhawale	169/3	Darwha	bagwadi

Executive Engineer
E.H.V. Projects Division,
M.S.E.T.C.L. Amravati.

Sr. No.	Tower No.	Type of Tower	Name of cultivators With Add.	Sy No.	Tq	Village
97			Gajanan Tulshiram Dadhe	139	Darwha	Dudhgaon
98	34	P+6	Gajanan Tulshiram Dadhe	140	Darwha	Dudhgaon
99	34-35		Raju Aatmaram Dadhe	141	Darwha	Nadgavanlad
100			Ramrao Dhumaji Nagpure	112/2	Darwha	Dudhgaon
101			Sitabai Pandit Gaikwad	113	Darwha	Dudhgaon
102			Bhojraj Haribhau Kambale	112	Darwha	Dudhgaon
103	35	Q+3	Raju Aatmaram Dadhe	111/1	Darwha	Dudhgaon
104	35-36		Praibha Raju Dadhe	106	Darwha	Dudhgaon
105			Shaheb Khan Ajis Khan	108/1	Darwha	Dudhgaon
106			Dhyaneshwar Kasinath More	108/2	Darwha	Dudhgaon
107	36	P+3	Raju Sambhaji Kathale	89	Darwha	Dudhgaon
108	37	P+3	Maroti Narayan Kathale	89	Darwha	Dudhgaon
109	38	P+3	Vimalabai Vashvanath Meshram	69/1	Darwha	Dudhgaon
110	38-39		Laxmibai Raghoji Khaire	65	Darwha	Ujona
111			Manoj Kisanrao Kathale	88	Darwha	Dudhgaon
112			Mohamad Rafiq Mohamad Fayyaj	87	Darwha	Dudhgaon
113	39	P+3	Lavesh Ramhari Rathod	86	Darwha	Pandhurna
114	39-40		Datta Keshavrav Jadhav (Road)	81/1	Darwha	Ujona
115	40	P+3	Nandkishor Shankar Chavhan	91/1	Darwha	Ujona
116	40-41		Mangesh Ramhari Rathod	85	Darwha	Ujona
117			Subhash Vitthal Shelke	91/1	Darwha	Ujona
118			Kush Ramhari Rathod	87	Darwha	Ujona
119			Kishor Ramhari Rathod	88	Darwha	Ujona
120	40-41		C Class Forest	31	Darwha	Pandhurna
121	41	Q+6	Vijay Pirchand Rathod	108/2	Darwha	Pandhurna
122	41-42		Bramhadev Fulsingh Rathod	113	Darwha	Pandhurna
123			Abhishek Bramhdev Rathod	111	Darwha	Pandhurna
124	42	Q+0	Subhash Fulsingh Rathod	112	Darwha	Pandhurna
125	42-43		Subhash Fulsingh Rathod	113	Darwha	Pandhurna
126			Yash Bramhadev Rathod	111	Darwha	Pandhurna
127	43	P+0	Yadavrao Shriram Pawar	115	Darwha	Pandurna
128	43-44		Bharti Gunwant Kale	3	Darwha	Pandurna
129	44	P+3	Gajanan Shankar Kale	1	Darwha	Pandurna
130	44-45		Ratan Dhansingh Rathod (Road)	18	Darwha	Pandurna
131			Naresh Panjab Kale	48/1	Darwha	Pandhurna
132			Ramkrushna Babarao Kale		Darwha	Pandhurna
133	45	P+3	Vijay Uttam Rathod (Road)	57	Darwha	Pandurna
134	45-46		Ajay Uttam Rathod (Road)	56	Darwha	Pandurna
135	46	P+6	Hemchand Vasram Rathod	53/2	Darwha	Pandhurna,
136	46-47		Ulhas vasram Rathod	53/3	Darwha	Pandurna
137			Jay Ramesh Jadhao	22/1/A	Dawha	Morgavhan
138	47	Q+3	Paribai Tarachand Rathod	22/2	Darwha	Morgavhan
139	47-48		Lilabai Charansingh Rathod	21/1	Darwha	Morgavhan
140	48	P+3	Dam Area		Darwha	Morgavhan
141	49	R+0	Gajanan Shankar kale (E+R)	.1/2	Darwha	Morgavhan
142			Sanjaykumar Shankar Kale (Road)	3	Darwha	Morgavhan
143	50	P+3	Kisan Pratap Rathod	10/1	Darwha	Morgavhan
144	51	P+0	Sanjay Shankarrao Kale	74/1	Darwha	Ladkhed
145	51-52		Vijay Homsingh Rathod	76/2	Darwha	Morgavhan
146	52	P+3	Homsing Parasram Rathod	77	Darwha	Ladkhed
147	53	P+6	Shankar Ganpatsa Gulhane	80	Darwha	Ladkhed

Executive Engineer
E.H.V. Projects Division,
M.S.E.T.C.L. Amravati.

Sr. No.	Tower No.	Type of Tower	Name of cultivators With Add.	Sy No.	Tq	Village
148	53-54		Lateefa Anjum Sher Afzal Khan	64	Darwha	Ladkhed
149	53-54		Sher Afzal Khan Sattar khan	63	Darwha	Ladkhed
150	53-54		Sher Afjal Khan Sattar Khan	63	Darwha	Ladkhed
151	54	Q+0	Sher Afjal Khan Sattar Khan	65	Darwha	Ladkhed
152	54-55		Vijay Vishwasrao Thakre(Road)	66	Darwha	Ladkhed
153			Mohasin Ahemad Khan	66	Darwha	Ladkhed
154			Yaseen Khan Inayat Khan	82	Darwha	Ladkhed
155	55	P+0	Kamlakar Daulatrao Kelkar	62	Darwha	Ladkhed
156	56	P+3	Gajanan Chandrabhanji Dudhe	37/1	Darwha	Ganeshpur
157	56-57		Uttam Chandrabhan Dudhe	37/2	Darwha	Ganeshpur
158	57	P+3	Kisanrao Vithobaji Dudhe	45	Darwha	Ganeshpur
159	57-58		Sunil Kisan Dudhe	45	Darwha	Ganeshpur
160	58	P+0	Shaligram Vithoba Dudhe	44/4	Darwha	Ganeshpur
161	58-59		Shushila Shaligram Dudhe	44/3	Darwha	Ganeshpur
162	59	P+6	Raju Maroti Dhote Anil Marotrao Dhote (3leg)	563	Darwha	Ladkhed
163			Ramrao Raghoji Kasambe (1 Leg)	564	Darwha	Ladkhed
164	59-60		Parvatabai Maroti Dhote	563	Darwha	Ladkhed
165	60	P+0	Krushnaji Ravji Tayade	548	Darwha	Ladkhed
166	60-61		Eknath Janardan Domale	122/2	Darwha	Nadgavanlad
167	61	Q+0	Raju Janardan Domale	122/1	Darwha	Nadgavanla
168	61-62		Sachin Ghansham Dudhe	129	Darwha	Nadgavhan
169			Devrao Chandhuji Dudhe	120	Darwha	Nadgavhan
170	62	S+6	Indirabai Vithobaji Tayade	128	Darwha	Nadgavanla
171	62-63		Indirabai Vithobaji Tayade	128	Darwha	Nadgavanla
172			Chadrakant Vasntrao Deyulkar	7/2	Darwha	Nandgavan
173			Ramesh Laxman Tayade	130	Darwha	Nandgavan
174	63	S+6	Sanjay Natthu Shirsat	7/1	Darwha	Nadgavanla
175	63-64		Parasram Laxman Tayade (R+S)	14	Darwha	Nandgavan
176	64	P+3	Rajendra Motiramji Dudhe	13	Darwha	Banayat
177	64-65		Ramesh Vithobaji Gulhane	15/1	Yavatmal	Tiwasa
178			Devanand Ramlal Rathod	18	Darwha	Nadgagaon
179			Kalpana Devanand Rathod	18	Darwha	Kamathwada
180	65	P+6	Suresh Ramchandra Gulhane	45	Darwha	Nadgavan
181	65-66		Vinayak Bajirao Mote	47	Darwha	Nadgaon
182			Ramesh Pandurang Mode	48	Darwha	Nadgagaon
183			Aniket Pralhad Pandit	73/2	Darwha	Nadgagaon
184			Pralhad Maroti Pandit	73/1	Darwha	Nadgagaon
185	66	Q+0	Sujata Pralhad Pandit	73	Darwha	Nadgavan
186	66-67		Shrikrishna Nandkishor Chavhan	72/1	Darwha	Nadgaon
187	67	P+0	Santosh Subhash Chavhan	71	Darwha	Nandgavan
188	68-69		Vishnu Vitthalrao Maighane	47	Darwha	Kamathwada
189			Vishnu Vitthalrao Maighane	48	Darwha	Kamathwada
190			Rayvanti Ramchandra Ramteke	70	Darwha	Nandgavan
191			Avinash A Mahindre	50/2	Darwha	Kamathwada
192			Shital A Mahinde	50/4	Darwha	Kamathwada
193	69		Shital A Mahinde	50/3	Darwha	Kamathwada
194			Vitthal Ganpat Maighane	45	Darwha	Kamathwada
195	69-70		Makhanlal Dasarthlal Jaiswal	51/1	Darwha	Kamathwada
196			Pratibhatai Makhanlal Jaiswal	51/2	Darwha	Kamathwada
197			Ramesh Namdeo Bhagawat	67	Darwha	Kamathwada
198	70	S+6	Suresh Ramesh Bhagawat	46/2/A	Darwha	Kamathwada

Executive Engineer
E.H.V. Projects Division,
M.S.E.T.C.L. Amravati.

Sr. No.	Tower No.	Type of Tower	Name of cultivators With Add.	Sy No.	Tq	Village
199	70-71		Kailas r Borakar	65/2	Darwha	Kamathwada
200	71A		Lilabai Sukhdev Waghmare	66	Darwha	Kamathwada
201	71 A-71		Vijit Sukhdev Waghmare	46/2/B	Darwha	Kamathwada
202			Mrunal R Bharne	52	Darwha	Kamathwada
203	71	P+6	Kamlabai Sukhadev Deshpande	65/1	Darwha	Kamathwada
204	71-72		Gangabai Uttamrao Meshram	65/1	Darwha	Kamathwada
205			Vijit Sukhdev Waghmare	46/2/B	Darwha	Kamathwada
206	72	P+3	Shivnandan jagannath Mor	77	Darwha	Kamathwada
207	72-73		Gunvant Divakar Thokal	43	Ner	Linga
208	73	S+0	Samdurabai Sudhakar Thokal	43	Ner	Linga
209	73-74		Narendra Gopal Ghule	44	Darwha	Linga
210			Sanjykumar Shankar Kale	51	Darwha	Ladkhead
211	74	R+0	Arvind Gopal Ghule	44	Ner	Linga
212	74-75		Shardabai Gopal Ghule	44/1	Ner	Linga
213			Shardabai Gopal Ghule	39	Ner	Linga
214	75	P+3	Narendra Gopal Ghule	39	Ner	Linga
215			Sanjay Gopal Ghule	41/2	Ner	Linga
216	76	Q+3	Shobha Shankar Rathod	322	Yavatmal	Tiwasa
217			Shardabai Gopal Ghule	41/1	Ner	Linga
218	77	P+6	Ashok Namdev Rathod	330	Yavatmal	Tiwasa
219	78	P+0	Gajanan Kisan Ingle	319	Yavatmal	Tiwasa
220			Sachin Gajanan Ingle	318	Yavatmal	Tiwasa
221	78-79		Vasant Ratansingh Rathod	392	Yavatmal	Tiwasa
222	79	Q+0	Ramlal Desa Rathod	385	Yavatmal	Tiwasa
223			Devidas Desa Rathod			
224	80	R+0	Ram Rajaram Rathod	386	Darwha	Tiwasa
225	81		Lalsingh C Chavhan	126	Darwha	Tiwasa
226	82	P+3	Lata Ashok Ayyar	383	Yavatmal	Tiwasa
227	82 A	S+6	Surendrakumar Uditnarayan Mishra	3	Darwha	varjai
228	82-83		Vijay Ravindra Mishra	2	Darwha	varjai
229			Sarkar E Class	94	Darwha	varjai
230	83	P+0	Vasuda Vasantrao Jiwane	95	Darwha	Warjai
231	84	Q+0	Shashank Vasantrao Jiwane	93	Darwha	Warjai
232	85	P+0	Subhadra Khanduji Shende	92/2	Darwha	Warjai
233	85-86		Santosh Narayan Umate	91/1	Darwha	Warjai
234			Narendra N Umate	91/2	Darwha	Warjai
235	86	P+0	Ghanshyam Narayan Umate	91/3,91/3	Darwha	Warjai
236	86-87		Bharat Madhavrao Pane	30/1/C	Yavatmal	Jamwadi
237			Suresh Parashram Kawane	90	Darwha	Warjai
238			Ganesh P Kawane	89	Darwha	Warjai
239			Mangesh N Kawane	90	Darwha	Warjai
240	87		Ramesh Parashram Kawane	88	Darwha	Warjai
241			Bahalchandra Kawane	87	Darwha	varjai
242	87-88		Subhash U Kawane	85	Darwha	Warjai
243			Jitendra U Kawane	86	Darwha	Warjai
244	88	P+0	Baban Hirabaji Chavare	30/2	Yavatmal	Jamwadi
245	88-89		Gopalrao Zhunbaji Kalokar	31/1	Yavatmal	Jamwadi
246	89	P+0	Dashrath Zhunbaji kalokar	32/2	Yavatmal	Jamwadi
247	89-90		Dipak Zunbaji Kalokar	32/1	Yavatmal	Jamwadi
248	90	P+3	Dipak Zunbaji Kalokar	30/3	Yavatmal	Jamwadi
249	91	Q+0	Digamber Nathuji Shelke	26/2	Yavatmal	Jamwadi

Executive Engineer
E.H.V. Projects Division,
M.S.E.T.C.L. Amravati

Sr. No.	Tower No.	Type of Tower	Name of cultivators With Add.	Sy No.	Tq	Village
250	92	R+0	Ganpat Behalf Mainabai Tanbaji Dole	25/2	Yavatmal	Jamwadi
251			Vandana Vijay Thakare	26/1	Yavatmal	Jamwadi
252	93	P+3	Mainabai Tanbaji Dole	25/2	Yavatmal	Jamwadi
253	94	P+0	Ganpat Tanbaji Dole	.20/1	Yavatmal	Jamwadi
254	95	P+3	Prakash Ganpatrao Dole	204/2	Yavatmal	Echori
255	96	Q+0	Ashok Ramrao Agaldhare	203	Yavatmal	Echori
256			Kamala Rambhau Ghulhane	182/1	Yavatmal	Echori
257	96-97		Mahadev Parasram Katore	183	Yavatmal	Echori
258	97	P+3	Maroti Kanhu Nagmote	184	Yavatmal	Echori
259	97-98		Sushant Subhash Katore	186	Yavatmal	Echori
260	98	P+0	Vishwanath Gomaji Katore	187	Yavatmal	Echori
261	98-99		Bhimrao Pandurang Shinde	189	Yavatmal	Echori
262	99	Q+3	Radhabai Maroti Pardhi	190	Yavatmal	Echori
263	100	P+3	Samudaik Sahakari Sheti Sanstha Echori	164	Yavatmal	Echori
264	100-101		Vishnu Parashram Murmure	157	Yavatmal	Echori
265	101	P+3	Rekha Omkar Dhare	156	Yavatmal	Echori
266	101-102		Shankar Vitthalrao Dhare	155	Yavatmal	Echori
267	102	P+0	Yogendra Pundalik Aalone	154	Yavatmal	Echori
268	102-103		Mahadev Govindrao Katore	183	Yavatmal	Echori
269			Suresh Ramchandra Katore	147	Yavatmal	Echori
270			Mahadeo Govindrao Katore	150	Yavatmal	Echori
271			Gajanan Sadashiv Ningurkar	98	Yavatmal	Echori
272	103	P+3	Govardhan Shankar Wankhade	97	Yavatmal	Echori
273	103-104		Lata Gajanan Arsod	135	Yavatmal	Echori
274			Sandip Yashvant Dole	140	Yavatmal	Echori
275			Girdhar Gunwant Dole	138	Yavatmal	Echori
276			Datta n Yelankar	133	Yavatmal	Echori
277	104	P+3	Subhash Gunvant Dole	139	Yavatmal	Echori
278	104-105		Amit Gunvant Dole	137	Yavatmal	Echori
279			Pushpabai Wasudev Chandure	134	Yavatmal	Echori
280			Ushabai Pandurang Chavan	136	Yavatmal	Echori
281			Shantabi Gunvant Dole	138	Yavatmal	Echori
282	105	P+3	Pravin Bhaurao Bhoyar	127	Yavatmal	Echori
283			Latabai Bhaurao Bhoyar	127	Yavatmal	Echori
284			Bharat Bhaurao Bhoyar	127	Yavatmal	Echori
285	106	S+3	Pravin Bhaurao Bhoyar	123	Yavatmal	Echori
286			Bharat Bapurao Bhoyar	127	Yavatmal	Echori
287	107	S+25	Kamlabai Pandurang Shende	122	Yavatmal	Echori
288	108	S+6	Ladesh Shamrao Yalankar	32	Yavatmal	Echori
289			Ravindra Ambadas Samarth (2 Leg)	34	Yavatmal	Echori
290	109	Q+0	Pravin Mithalal Gandhi	30/2	Yavatmal	Echori
291	110	Q+0	Namdev Harisa Rajgure	132/1	Yavatmal	Khinhi
292	111	S+3	Namdev Harisa Rajgure	132/1	Yavatmal	Khinhi
293	111-112		Vina Shankar Chakule	120	Yavatmal	Khinhi
294	112	R+0	Jawaharlal Narayandas Chattani	118	Yavatmal	Khinhi
295	114	S+6	Rutuja s Lachake	148/1	Yavatmal	Khinhi
296	116	Q+0	Neela Sumant Patange	149	Yavatmal	Khinhi
297	117	R+3	Neela Sumant Patange	149	Yavatmal	Khinhi
298	119	S+0	Sunanda Nivrutti Bongale	181	Yavatmal	Khinhi

Executive Engineer
E.H.V. Projcets Division,
M.S.E.T.C.L. Amravati.

Annex (4)
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MAHATRANSCO

MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO. LTD.
CIN No. U40109MH2005SGC153646

From:	To :
Additional Executive Engineer, EHV Line Project. Sub-Division 1 C/o Purshottam Jirapure Plot No.63-64 , Sattyanarayan Layout, Arni Road Yavatmal Mob no : 8554993862 E-mail- adee1624@mahatransco.in	The Executive Engineer EHV Project Division, A Wing Ground Floor,Prakash sarita 220kV S/Stn Campus Morshi Road, Amravati 444 601.

Add. EE/EHV/LINES/PROJ/S/DN-1/YTL/36 Dt.:-09.02.2023

Subject:- Submission of WCR of LILO on 132KV Yavatmal-Yavatmal MIDC line for 132 KV Darwha S/s.

Ref: No claim certificate from M/s Shreem Electric vide Ltr.No.5394/23 Dt.08.02.2023

With the reference to above subject please find enclosed herewith the WCR in r/o LILO on 132KV Yavatmal-Yavatmal MIDC line for 132 KV Darwha S/s.The line is successfully commissioned & put to use on **dtd. 28.11.2022 at 21:46 & 23:15** Hrs respectively from 132KV Darwha S/Stn. & stood Ok. Total line length is 34.6 Km.

Waldekar

Addl. Executive Engineer
EHV Line Proj. Sub-Dn-I
o/c MSETCL,Yavatmal

MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO. LIMITED
EHV PROJECT DIVISION, Yavatmal.

WORK COMPLETION REPORT of LILO on 132kV Yavatmal-Yavatmal MIDC Line for 132kV Darwha S/Stn.

(A)	Name of Sub - Division	EHV S/Stn Project Sub-Division, Yavatmal.
(B)	Name of Division	EHV Project Division, Amravati.
(C)	Name of Agency	M/s Shreem Electric Ltd ,Jaisingpur
(D)	LOA No. & Date & Amount	MSETCL/CO/DCM/D&T/TKC-L/T-1797/Supply&ETC/ No:2502 & 2503 dated.07.03.2018
	(i) Supply	Rs. 8,53,31,057.77
	(ii) Erection	Rs. 2,96,12,565.72
1	Name of Scheme	LILO on 132kV Yavatmal-Yavatmal MIDC Line for 132kV Darwha S/Stn. .
1a	Name of Sub - Scheme	
1b	Scope of Work	LILO on 132kV Yavatmal-Yavatmal MIDC Line for 132kV Darwha S/Stn. .
2	T.S.Estimate No. & Date	Not Known
3	Amount of Sanctioned Estimate Rs.	Not Known
4	Amount of Work Order	
	(i) Supply	Rs. 8,53,31,057.77
	(ii) Erection	Rs. 2,96,12,565.72
	TOTAL	**Rs. 11,49,43,623.49**
5	Actual Expenditure incurred	
	(i) Supply	Rs. 10,96,11,101.90
	(ii) Erection	Rs. 4,03,92,310.47
	TOTAL	Rs. 15,00,03,412.37
6	Savings (4-5) in Rs.	Nil
7	% of Savings (6 x 100) / 4	Nil
8	Excess if any (5 - 4) in	Rs. 3,50,59,788.88
9	% Excess over Estimate (8 x 100)/4	30.50%
10	Date of Commencement of Work	31.12.2019
11	Date of Scheduled Completion	11.09.2019
11	Date of Actual Completion of Work	31.12.2019
12	Date of Asset Commissioned & put to use	28.11.2022.
13	Justification for excess/savings	
14	Remarks if any	

Prepared By

Assistant Engineer
EHVLine Project S/Dn.1 Yavatmal

Checked By

Waldekar.
Addl. Exe. Engineer
EHVLine Project S/Dn.1 Yavatmal

EXECUTIVE ENGINEER
EHV PROJECT DIVISION,
MSETCL, AMRAVATI

Dy.Conservator of Forests
Yavatmal Division

LILO on 132kV Yavatmal-Yavatmal MIDC Line for 132kV Darwha S/Stn. -

Name of EHV project: LILO on 132kV Yavatmal-Yavatmal MIDC Line for 132kV Darwha S/Stn .
Scope of the work: LILO on 132kV Yavatmal-Yavatmal MIDC Line for 132kV Darwha S/Stn. .
Work order No & Date.: MSETCL/CO/DCM/D&T/TKC-L/T-1797/Supply&ETC/ No:2502&2503 dated 07.03.2018
Name of Contractor- M/s Shreem Electric Ltd ,Jaisingpur
Start Date of Project (Zero Date) : 12-03-2018
Target Date of Completion : 11-09-2019 Date of Actual Completion of Work 31-12-2019

LOA Quantity & Rate									
Item Code BOM	SAP material No.	Description of Material	Units	LOA Qty	Unit Rate	Amount	Final QV Qty	Operatd Qty	Amount
1	500000038	Fabrication, galvanising, supply at site store of 132 KV D/C, M/C towers (Viz 2°, 15°,30° ,60°) of normal type, its extensions, including special towers for all type of crossings, with set of stubs, Superstructure, templates, step bolts, D' shackles, chain links etc, with all other tower accessories, complete in all respect as per approved design and drawing provided by the purchaser.	MT	378	88424.15	33424328.70	601	599.711	53028935.42
2	500000039	Supply at site store of galvanised bolts & nuts with spring washers, plain washers for 132 KV line towers/structures/accessories.	MT	14.00	125862.09	1762069.26	22	21.578	2715852.178
		Supply of Tower Accessories					0		0
3	500000709	a) Danger Board	Nos	118	289.32	34139.76	127	123	35586.36
4	500003465	b) Number Plate	Nos	118	241.91	28545.38	127	123	29754.93
5	500000712	c) Phase plates (Set of RYB)	Set	236	390.21	92089.56	254	246	95991.66
6	500003466	d) Circuit plates	Nos	118	402.38	47480.84	127	123	49492.74
7	500003467	e) Anti-climbing devices with Barbed wire	Set	118	4678.98	552119.64	127	123	575514.54
8	500000713	f) Bird guard	Set	83	680.77	56503.91	63	56	38123.12
		Insulators and Hardwares							0
		Disc Insulators(Normal)							0
9	500000324	a) Disc insulator - 70 KN	Nos	5,600	861.88	4826528.00	4094	4094	3528536.72
10	500000323	b) Disc Insulator - 120 KN	Nos	4,600	1022.35	4702810.00	8881	8881	9079490.35
		Hardwares suitable for 0.2 ACSR Panther conductor							0
11	500000805	a) SSN/SSA	Set	426	2567.41	1093716.66	321	321	824138.61
12	500000807	b) DSN/DSA	Set	96	4982.89	478357.44	72	72	358768.08
13	500000809	c) STN/STA	Set	384	2990.44	1148328.96	636	636	1901919.84
14	500000811	d) DTN/DTA	Set	36	6525.53	234919.08	120	120	783063.6
		Supply of Conductor & Accessories							0
		conductor							0
15	500000790	b) 0.2 Panther ACSR, copper equivalent conductor including 1% extra for sag, jumpering and wastage.	Kms	216	154902.42	33458922.72	214	214.139	33170649.32
		Accessories for 0.2 ACSR Panther conductor					0		0
16	500000813	a) Mid span joints	Set	100	722.09	72209.00	59	59	42603.31
17	500000814	b) Repair sleeves	Nos	50	255.28	12764.00	19	19	4850.32
18	500002879	c) P.A. rods	Set	522	1070.98	559051.56	404	404	432675.92
19	500002903	d) Vibration Dampers	Nos	1,416	623.61	883031.76	1506	1506	939156.66
		Supply of Earthwire & Accessories							0
		Earth wire							0
20	500000785	7/3.15 mm galvanised steel wire including 1 % extra sag and wastage	Kms	35	46607.60	1631266.00	36	35.948	1675450.005
		Accessories for Earth wire (7/3.15 mm)							0
21	500000792	a) Tension Clamps	Set	80	652.79	52223.20	146	146	95307.34
22	500000791	b) suspension clamps	Set	83	627.26	52062.58	63	63	39517.38
23	500000793	c) Mid span Joints	Nos	12	161.68	1940.16	5	5	808.4
24	500000795	d) Copper Earth Bonds	Nos	160	785.31	125649.60	210	210	164915.1
					Total–	85331057.77			109611101.90

Addl Exe Engineer
EHVLine Project S/Dn 1 Yavatmal

21	3000012046	Earthing of towers with counter Poise type earthing	Nos.	58	13240.90	767972.20	91	91	

132 KV Darwah - Yavatmal line

Name of EHV project: LILO on 132kV Yavatmal-Yavatmal MIDC Line for 132kV Darwha S/Stn .
Scope of the work: LILO on 132kV Yavatmal-Yavatmal MIDC Line for 132kV Darwha S/Stn.
Work order No & Date.: MSETCL/CO/DCM/D&T/TKC-L/T-1797/Supply&ETC/ No:2502&2503 Dtd 07.03.2018
Name of Contrctor- M/s Shreem Electnc Ltd Jaisingpur
Start Date of Project (Zero Date) : 12-03-2018
Target Date of Completion : 11-09-2019
Date of Actual Completion of Work 31-12-2019

LOA Quantity & Rate of Darwah- Yavatmal Line.

Sr No.	SAP material No.	Description of Material	Units	LOA Qty	Unit Rate	Amount	Final QV Qty	Operatd Qty	Amount
		Survey							0
1	300008620	Preliminary Survey	Km	35	3851.90	134816.50	35	0	0
2	300006597	Detail survey	Km	35	13240.90	463431.50	35	0	0
3	300002036	Check survey	Km	35	5416.73	189585.55	35.5	35.433	191930.9941
		Excavation of pits for tower footing in earthsoil of all including removing of excavated matrial beyond tower limits up to 50 mtrs. Lead and all lifts, shoring, shuttering, dewatering, preparation of bed for foundation and back filling after casting and curing of foundations with ramming etc.							0
4	300002037	a) Normal soil	CuM	10	240.72	2407.20	0	0	0
5	300002038	b) Hard Murrum/Soft Rock	CuM	300	421.90	126570.00	755.02	755.015	318540.8285
6	300002039	c) B C soil/submerged soil	CuM	10500	361.12	3791760.00	8012.27	8012.044	2893309.329
7	300002040	d) Dry fissured rock	CuM	900	1083.35	975015.00	2090.75	2090.748	2265011.846
8	300002041	e) Hard rock by chiseling	CuM	150	1564.83	234724.50	413.978	413.978	647805.1937
		132 KV D/C Tower stub setting in all types of soil with the help of template					0		0
9	300001896	2 Deg.	Per Loc.	83	2407.40	199814.20	63	63	151666.2
10	300001901	15 Deg	Per Loc.	21	3610.15	75813.15	25	25	90253.75
11	300001907	30 Deg	Per Loc.	6	4213.01	25278.06	9	9	37917.09
12	300001913	60 Deg	Per Loc.	8	4814.87	38518.96	21	21	101112.27
		Special Tower Special Towers(exceeding +9 mtr. Extension)	Per Loc.	0	7222.31	0.00	4	4	28889.24
		Horizontal tower	Per Loc.	0	3611.15	0.00	0	0	0
		132KV Multi Circuit Towers: Stub setting in all type of soils with the help of templete/ PROP including transportation if required to the desired location, fixing the stubs in position as per the alignment, fixing and leveling the templete and the stub as directed.							
13	300001896	2 Deg.	Per Loc.	0	4213.01	0.00	0		0
14	300001901	15 Deg	Per Loc.	0	4814.87	0.00	0		0
15	300001907	30 Deg	Per Loc.	0	6018.59	0.00	1	1	6018.59
16	300001913	60 Deg	Per Loc.	0	6620.45	0.00	4	1	6620.45
		Special Tower Special Towers(exceeding +9 mtr. Extension)	Per Loc.		7824.17		0		0
		Horizontal tower	Per Loc.		4213.01		0		0
		Providing and casting in-situ cement concrete of trap metal of size 20 to 40 mm as aplicable, including fixing of stub units with bolts & nuts with fixing of stub setting templates, form boxes, fishing, coping and curing for 21 days complete							
17	300002042	a) 1:3:6 (M-10)	CuM	125	6620.45	827556.25	140.821	140.821	932298.3895
18	300002043	b) 1:1.5:3(M-20)	CuM	1200	7824.17	9389004.00	1878.725	1878.725	14699463.78
19	300002044	Providing and fixing of steel rainfourcement in concrete foundation	MT	40	80649.11	3225964.40	92.003	92.003	7419960.067
20	300002045	Earthing of towers with pipe type earthing	Nos.	60	6018.59	361115.40	36	36	216669.24
21	300002046	Earthing of towers with counter Poise type earthing	Nos.	58	13240.90	767972.20	91	91	1204921.9
22	300000633	Complete erection of DC/MC towers (including special towers) with its extensions for 132 KV lines	MT	373	6620.45	2469427.85	593	581.68	3850983.356
		Benching					0		0
23	300002053	a) Normal soil/B C soil	CuM	10	193.07	1930.70	0	0	0
24	300002054	b) H M/S R/ F R	CuM	100	325.36	32536.00	0	0	0
25	300002055	c) F R/ H R	CuM	200	325.36	65072.00	216.19	216.19	70339.5784
26	300002055	d) F R/ H R	CuM	100	962.97	96297.00	0		0
		Protection of tower footing by uncoursed rubble stone: Excavation of foundation for revetment wall in all types of soil.							
27	300008641	Normal soil/sand/gravel/soft murum	CUM	100	240.72	24072.00	0		0
28	300008642	B C Soil/Submurged soil	CUM	100	361.12	36112.00	0		0
29	300008643	Soft Rock/Hard Murum	CUM	100	421.90	42190.00	0		0
30	300008644	Dry Fissured rock	CUM	600	1083.35	650010.00	389.83	389.83	422322.3305
31	300008645	Hard rock by chiseling.	CUM	300	1564.83	469449.00	0		0
32	300002057	Random rubble stone masonary for retaining wall including excavation base padding	CuM	400	2166.69	866676.00	0		0

Sr No.	SAP material No.	Description of Material	Units	LOA Qty	Unit Rate	Amount	Final QV Qty	Operatd Qty	Amount
33	300008648	Providing & constructing of UCR masonry of trap stone in cement mortar 1:6 in super structure including racking out joints on the inside as no plastering to be done from inside, scaffolding, dewatering, compacting, curing etc. complete in all respects as per the drawings to be furnished by the MSETCL.	CuM	0	2936.60	0.00	375.44	375.44	1102517.104
34	300008646	Providing & casting in situ cement concrete of 1:2:4 of trap metal for copping of retaining wall including cost of the cement, sand, metal, water, dewatering, form work, compaction & curing etc. complete in all respect	CuM	0	7463.05	0.00	8.55	8.55	63809.0775
35	300008647	Providing & casting in situ cement concrete of 1:3:6 of trap metal for copping of retaining wall including cost of the cement, sand, metal, water and form work, compaction & curing etc. complete in all respect	CuM	0	6620.45	0.00	34.41	34.41	227809.6845
36		Stringing					0		0
37	300002057	Stringing of three phases of both the circuits on D/C, D/C towers with 0.2 ACSR Panther conductor	kms	35	72223.08	2527807.80	34.63	34.563	2496246.314
		Stringing of three phases of both the circuits on D/C, M/C towers with 0.2 ACSR Panther conductor	kms	0	87871.41	0.00	0.87	0.87	76448.1267
38	300000654	Stringing of of earth wire for 132 KV	Kms	35	15046.48	526626.80	36	35.432	533126.8794
39	300007351	Electric Tack welding to GI Nut Bolt to D/C Tower	Per Tower	118	2648.18	312485.24	127	127	336318.86
40		Dismantling/De stringing of existing 66KV lines					0		0
	300000656	a) Single circuit line	Kms	3	44296.82	132890.46	3	0	0
	300002077	C)Removal of stubs upto 1.5 mtr.	Per Tower	0	8426.03	0.00	100	0	0
43	300000661	Dismantling of all types of existing towers and all its accessories safely	MT	100	5296.36	529636.00	0	0	0
					Total--	29612565.72			40392310.47

Addl. Exe. Engineer
EHVLine Project S/Dn.1 Yavatmal

25

MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO. LTD.
CIN No. U40109MH2005SGC153646

From:	To :
Additional Executive Engineer, EHV Line Project. Sub-Division 1 C/o Purshottam Jirapure Plot No.63-64 , Sattyanarayan Layout, Arni Road Yavatmal Mob no : 8554993862 E-mail- adee1624@mahatransco.in	The Executive Engineer EHV Project Division, A Wing Ground Floor,Prakash sarita 220kV S/Stn Campus Morshi Road, Amravati 444 601.

Add. EE/EHV/LINES/PROJ/S/DN-1/YTL/36 Dt.:-09.02.2023

Subject:- Submission of WCR of LILO on 132KV Yavatmal-Yavatmal MIDC line for 132 KV Darwha S/s.

Ref: No claim certificate from M/s Shreem Electric vide Ltr.No.5394/23 Dt.08.02.2023

With the reference to above subject please find enclosed herewith the WCR in r/o LILO on 132KV Yavatmal-Yavatmal MIDC line for 132 KV Darwha S/s.The line is successfully commissioned & put to use on dtd. 28.11.2022 at 21:46 & 23:15 Hrs respectively from 132KV Darwha S/Stn. & stood Ok. Total line length is 34.6 Km.

Kaldekar

Addl. Executive Engineer
EHV Line Proj. Sub-Dn-I
O/C MSETCL,Yavatmal

MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO. LIMITED
EHV PROJECT DIVISION, Yavatmal.

WORK COMPLETION REPORT of LILO on 132kV Yavatmal-Yavatmal MIDC Line for 132kV Darwha S/Stn.

(A)	Name of Sub - Division	EHV S/Stn Project Sub-Division, Yavatmal.
(B)	Name of Division	EHV Project Division, Amravati.
(C)	Name of Agency	M/s Shreem Electric Ltd ,Jaisingpur
(D)	LOA No. & Date & Amount	MSETCL/CO/DCM/D&T/TKC-L/T-1797/Supply&ETC/ No:2502 & 2503 dated.07.03.2018
	(i) Supply	Rs. 8,53,31,057.77
	(ii) Erection	Rs. 2,96,12,565.72
1	Name of Scheme	LILO on 132kV Yavatmal-Yavatmal MIDC Line for 132kV Darwha S/Stn. .
1a	Name of Sub - Scheme	
1b	Scope of Work	LILO on 132kV Yavatmal-Yavatmal MIDC Line for 132kV Darwha S/Stn. .
2	T.S.Estimate No. & Date	Not Known
3	Amount of Sanctioned Estimate Rs.	Not Known
4	Amount of Work Order	
	(i) Supply	Rs. 8,53,31,057.77
	(ii) Erection	Rs. 2,96,12,565.72
	TOTAL	Rs. 11,49,43,623.49
5	Actual Expenditure incurred	
	(i) Supply	Rs. 10,96,11,101.90
	(ii) Erection	Rs. 4,03,92,310.47
	TOTAL	Rs. 15,00,03,412.37
6	Savings (4-5) in Rs.	Nil
7	% of Savings (6 x 100) / 4	Nil
8	Excess if any (5 - 4) in	Rs. 3,50,59,788.88
9	% Excess over Estimate (8 x 100)/4	30.50%
10	Date of Commencement of Work	31.12.2019
11	Date of Scheduled Completion	11.09.2019
11	Date of Actual Completion of Work	31.12.2019
12	Date of Asset Commissioned & put to use	28.11.2022.
13	Justification for excess/savings	
14	Remarks if any	

Prepared By

Assistant Engineer
EHVLine Project S/Dn.1 Yavatmal

Checked By

Waldekar.
Addl. Exe. Engineer
EHVLine Project S/Dn.1 Yavatmal

EXECUTIVE ENGINEER
EHV PROJECT DIVISION,
MSETCL, AMRAVATI

2.7 A typical 'Sag Template' drawing is shown in Appendix – B.

3.0 TOWER SPOTTING

3.1 The Sag Template is applied to the profile by moving the same horizontally while always ensuring that the vertical axis is held vertical, i.e., in line with the vertical lines on the profile sheet.

3.2 The following clearances shall be provided between the lowest conductor of the line and the ground as per clause 58 of CEA (Measure relating to safety and Electric supply).

Sl. No.	Nominal System Voltage	Minimum Ground Clearance (Metres)
1.	132 kV	6.10
2.	220 kV	7.00
3.	400 kV	8.84
4.	800 kV	12.40

For High Voltage Direct Current(HVDC) lines, the clearance above ground shall not be less than:

Sl. No.	DC Voltage (KV)	Minimum Ground Clearance (Metres)
1.	400	9.4
2.	500	10.6
3.	600	11.8
4.	800	13.9=

3.3 The left hand side of the tower footing curve is placed at the starting point of each section.

Initially, the template is shifted to the right, ensuring at all times that the tower footing curve is touching the starting point, to a position where the ground clearance curve is just above the ground profile, i.e., the ground clearance curve should not touch or cross the ground line plotted on the profile. The second tower location is then marked at the point where the tower footing curve on the right hand side cuts the ground profile.

3.4 The second tower location is then used as the reference and the third tower location is marked in a similar manner as above. This is continued till the end of the section is reached.

3.5 It may be possible that a very short or very long span remains at the end of the section. In such cases, depending on the economics of the options, the span can be distributed evenly or other spans in the section can be increased (not normally exceeding the basic span) by using tower extensions wherever possible.

3.6 The ground clearance curve shall not only clear the route centre line profile but also the profile to the left or right of the centre line upto a distance equal to maximum cross arm spread on either side.

3.7 Besides normal ground clearance, the clearance between power conductor and objects like other power or telecommunication lines, houses, trolley wires, roads, railway tracks, canal embankments etc., is also to be checked. In these cases, the clearance of the conductor from these objects is to be maintained.

4.2 For lines upto 220 kV, IS 5613 (Part 2 / Sec 2) recommends the following right of way widths taking into consideration the theoretical requirement of right of way and transport requirements of maintenance:

Transmission Voltage	Recommended Width of Right of Way
132 kV	27 meters
220 kV	35 meters

4.3 For 400 kV lines, the following right of way width, as per present MSETCL practice, shall be maintained taking into consideration the theoretical requirement of right of way and transport requirements of maintenance:

Transmission Voltage	Recommended Width of Right of Way
400 kV	52 meters

5.0 MAINTAINING STATUTORY CLEARANCES

5.1 Clause 61, of CEA(Measure relating to safety and Electric supply) prescribes the horizontal clearance which is to be maintained from buildings / parts of buildings.

5.2 The horizontal clearance, on the basis of maximum deflection due to wind pressure, which should be maintained from buildings / parts of buildings, shall not be less than the values given below.

Transmission Voltage	Minimum Horizontal Clearance
132 KV	2.9 meters
220 KV	3.8 meters
400 KV	5.6 meters
800 KV	9.2 meters

5.3 The maximum deflection of the conductors shall be calculated on the basis of the wind pressure as per Clause 57, of CEA(Measure relating to safety and Electric supply).

6.0 ROUTE MARKING

6.1 At the starting point of the commencement of route survey, at all angle / section points, at every 1.25 km. or part thereof, and at the end point of the route survey, concrete pillars 200 x200 mm square and height 300 mm shall be buried firmly in the ground for easy identification. The concrete pillars shall have 'MSETCL' marked on them. The top of these pillars shall be 50 mm below ground level and should not normally project above the ground level. A wooden peg of size 50 x 50 mm and length 150 mm is embedded in the center of the concrete pillars when they are casted. Nails of 25 mm length shall be fixed on the top of these pegs to indicate the location of the center of the survey instrument.

ANNEXURE-IV

SACTIONED MBR COPY IS ENCLOSED HEREWITH

Pt. no. (7

(30)

MAHATRANSCO
Maharashtra State Electricity Transmission Co. Ltd.

MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO.LTD.
(CIN No. U40109MH2005SGC153646)

From,	To,
Name of Office: Chief Engineer (Project Scheme) Office Address: 'Prakashganga', MSETCL, Plot no. C-19, E-Block, Bandra Kurla complex, Bandra (E),Mumbai - 400051 Contact No: (O) 26595131 / (P) 26595130 FAX : 022- 26598587 Email Id: ccpd@mahatransco.in	The Chief Engineer EHV Project cum O&M Zone MSETCL Amravati

Ref. No:- MSETCL/CO/Project Scheme/Scheme-III/ 132 kV Linkline/ 9229 Date: 18/08/17

Sub.: "Construction of LILO on 132 kV Yavatmal – Yavatmal MIDC line at 132 kV Darwha s/s Dist-Yavatmal"

Ref.: Board Resolution no. 119/12 dtd. 05.08.2017.

The scheme mentioned above has been approved by the Board of Directors vide Board Resolution no. **119/12 dtd. 05.08.2017** at an estimated cost of **Rs. 2654.00 Lakhs.** The copy of the sanctioned scheme* is enclosed herewith for further needful action.

It is to inform that Executive Engineer of respective EHV Project Division is the nodal officer for monitoring total execution of work for the scheme. The brief description of activities to be monitored by nodal officer is enclosed herewith.

It is requested to provide needful manpower and machinery to the officer, so that the project activities are monitored efficiently and timely.

* Detailed scan copy of scheme report will be mailed separately. (*Email Id*: prjscheme@gmail.com)

Encl: As above.

Mrs. C. N. Bendre
Chief Engineer
(Project Schemes)

Copy s. w. rs to:
1) The Dy. Secretary (Energy), Govt. of Maharashtra, Mantralaya, Mumbai – 32

Copy s.w.rs.to:
1) The Chief Engineer (STU), MSETCL, Prakashganga, Mumbai.
2) The Chief Engineer (O&M), MSETCL, Prakashganga, Mumbai.

3) The Chief Engineer (D C&M), MSETCL, Prakashganga, Mumbai.
4) The Chief Engineer (PAC), MSETCL, Airoli, Mumbai.
5) The Chief Engineer (Civil), MSETCL, Prakashganga, Mumbai.
6) The Chief Engineer (Infra), MSEDCL, Prakashgad, Mumbai.
7) The C.G.M. (F&A), MSETCL, Prakashganga, Mumbai.

Copy f.w.cs to:-

1) The Supt. Engineer, Pre-Tendering/Post Tendering, MSETCL, Mumbai.
2) The Supt. Engineer, Transmission (O & M) Circle, MSETCL, Amravati.
3) The Supt. Engineer, EHV Project Circle, MSETCL, Amravati.
4) The Supt. Engineer, Civil Construction cum Maintenance Circle, MSETCL, Amravati.
5) The Supt. Engineer, O& M circle, MSEDCL, Yavatmal.
6) The Sr. Manager (HR-tech establishment), MSETCL, Prakashganga, Mumbai.
7) A.G.M.(C.F.), MSETCL, Prakashganga, Mumbai.
   - For issue of BCN, financial tie up and budget provision for sanctioned scheme.

Copy to:

1) The Executive Engineer, EHV Project Division/Civil Division, MSETCL, Amravati.
2) The Executive Engineer Trans O & M Division, MSETCL, Yavatmal.
3) The Executive Engineer, (Design &Engg –I/Admin/MERC/FTU) MSETCL, Prakashganga, Mumbai.

MAHATRANSCO
Maharashtra State Electricity Transmission Co. Ltd.

Activities to be monitored by the Officer

1) To co-ordinate with Civil Division for land development such as plot fencing, leveling, approach road, water availability drainage, soil strata and soil resistivity data compilation & information to Head Office and monitoring weekly progress of work.
2) To co-ordinate with MSEDCL Authorities for power connection.
3) To report the handing over of site to turnkey contractor.
4) To keep watch on the activities of turnkey contractor regarding timely receipt of substation layout, Estimate design, Material specification and drawing finalization. Timely inspection of material both at pre-dispatch and pre-commissioning stage. To inform Circle office/Zone as well as C.E.(Project-Scheme) in case of bottlenecks in the proceedings.
5) To monitor the receipt of material at site of sub-station.
6) To monitor the activities of erection of sub-station for weekly respect to Circle office.
7) To monitor the receipt of material and progress of work for lines for weekly report to Circle Office.
8) To submit the claims to REC/PFC as per receipt of material & progress of work.
9) Timely recording of contractors' bill and submission to higher office.
10) To monitor the expenditure incurred and capitalization of assets of the scheme.
11) To inform the interruptions in work due to ROW problem and the decided course of action to Circle office.
12) To co-ordinate with MSEDCL authorities regarding outages, shifting of HT/LT lines and reorientation of HT lines from new sub-station.
13) To arrange for testing & commissioning work at sub-station.
14) To finalize the work completion reports.

P.S. - The action applicable for the relevant project may please be considered for implementation.

Mrs. C. N. Bendre

Chief Engineer
(Project Schemes)

C.E.(Proj./ Schemes) 1280
Date 9/8/2017

MAHATRANSCO
Maharashtra State Electricity Transmission Co. Ltd.

MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO.LTD
(CIN No. U40109MH2005SGC153646)
COMPANY SECRETARY DEPARTMENT

Phone No. (022) 26595301
Fax:- (022)26592316
Email : cs@mahatransco.in
Website: www.mahatransco.in

Prakashganga, Plot No. C-19, "E" Block,
1st Floor, Bandra-Kurla Complex,
Bandra (E), Mumbai-400 051.

CERTIFIED TRUE COPY OF THE RESOLUTION PASSED AT THE 119th MEETING OF THE BOARD OF DIRECTORS OF MAHARASHTRA STATE ELECTRICITY TRANSMISSION COMPANY LIMTED HELD ON SATURDAY, AUGUST 5, 2017 AT 10.00 A.M. AT HSBC, FORT, MUMBAI-400001

ITEM NO. 12: To consider and approve the proposal for Construction of LILO on 132 kV Yavatmal-Yavatlmal MIDC line at 132 kV Darwha s/s/, Dist.-Yavatmal

Resolution No.119/12

C.E. (PS) placed before the Board proposal to consider and approve the proposal for Construction of LILO on 132 kV Yavatmal-Yavatlmal MIDC line at 132 kV Darwha s/s/, Dist.-Yavatmal.

After deliberations, the Board approved the proposal and passed the following resolutions:

"**RESOLVED THAT** the consent of the Board of Director be and is hereby accorded administrative approval for the scheme report of "Construction of LILO on 132 kV Yavatmal-Yavatmal MIDC line at 132 kV Darwha s/s Dist.-Yavatmal ", at an estimated cost of Rs. 2654.00lakhs (including IDC of Rs.167.82 lakhs) covering the following scope of work:

1) Construction of 132 kV DC line by making LILO on 220 kV Yavatmal – 132 kV Yavatmal MIDC line at 132 kV Darwha s/s – 34 kms with following scope of work-
   i) 132 kV DC line on MC tower at 132 kV Darwha s/s end - 03 kms.
   ii) 132 kV DC line on DC tower between 132 kV Darwha s/s & LILO point –31 kms.
2) 132 kV line bay– 2 nos. (At 132 kV Darwha s/s)

RESOLVED FURTHER THAT the Board of Directors be and hereby directed that the scheme will be processed for MERC approval and financial assistance from REC / PFC or any other financial institute/ bank and turnkey contracting procedures will be started after sanction of the scheme;

RESOLVED FURTHER THAT the Board of Directors be and hereby directed that the budget provisions will be mapped appropriately in ERP system preferably LOA wise and similarly loan processing be done LOA wise;

RESOLVED FURTHER THAT the Board of Directors be and hereby directed that that the time period for issue of LoA under this administrative approval is 18 months from the date of

issue of Board Resolution and thereafter fresh administrative approval will be required to be taken from Board;

RESOLVED FURTHER THAT the C.M.D. of MSETCL be and is hereby empowered to do all such acts, deeds and things necessary to give effect to the above resolution."

For Maharashtra State Electricity Transmission Co. Ltd.

Date :08.08.2017
Place: Mumbai

Vineela Shriwani
CS, MSETCL

MAHATRANSCO
Maharashtra State Electricity Transmission Co. Ltd.

MAHARASHTRA STATE ELECTRICITY TRANSMISSION COMPANY LIMITED
CIN No.: U40109MH2005SGC153646

Name of Office: **Office of the Chief Engineer (Project Schemes)**

Office Address: 'Prakashganga', MSETCL, Plot no. C-19,E-Block, Bandra Kurla Complex, Bandra (E), Mumbai-400051

Contact No.: (O) 022 2659 5131, (P) 022-2659 5130, Fax.: 022-26598587

E-Mail Id: cepd@mahatransco.in, prjscheme@gmail.com

Website: www.mahatransco.in

Ref: MSETCL/CO/P S/Sch-III/132kV Link Line/ Date:

DOCKET – SHEET

Subject: "Construction of LILO on 132 kV Yavatmal – Yavatmal MIDC line at 132 kV Darwha s/s Dist-Yavatmal"

TO WHOM CASE IS SUBMITTED	INWARD/ OUTWARD DETAILS				REMARKS IF ANY
	INWARD		OUTWARD		
	NO.	DATE	TO WHOM CASE FORWARDED	DATE	
Director (Projects)	MSETCL/Dir (Proj) No. 1579 Inward Dt: 21/07/17 Outward Dt: 22/07/2017				
Director (Finance)	Dir(F)/0-827 Date: 27/7/17				
C.M.D., M.S.E.T.C.L.	CMD/MSETCL No. 795 Date of Inward 22/7/17 Date of Outward 22/7/17				

(33)

Sub-"Construction of LILO on 132 kV Yavatmal – Yavatmal MIDC line at 132 kV Darwha s/s Dist-Yavatmal"

C.E.(Proj. / Schemes) 302
Date 21/7/17

MSETCL/CO/Proj. Schemes/Schemes-III/Link line/
Project Schemes

Note To The Board:

1. Name of the Sponsoring Section	**Project Schemes**
2. Subject	"Construction of LILO on 132 kV Yavatmal – Yavatmal MIDC line at 132 kV Darwha s/s Dist-Yavatmal"
3. Estimated cost (as per SOR 2014-15)	Rs.2654.00 lakhs. (including IDC component Rs.167.82 lakhs)
4. MVA added	Nil
5. Ckt. kms added	68 ckt. kms
6. Proposal type (Fresh/Revalidation/ Modification)	Fresh

7. Scope of work

Sr. No.	Scope of work	Amount in Rs. Lakhs
1	Construction of LILO on 132 kV Yavatmal - Yavatmal MIDC line at 132 kV Darwha s/s with end line bays & contingencies	1886.45
2	Compensation, Statutory& price variation.	396.94
3	Centages	202.79
7	IDC component.	167.82
	Total	**2654.00**

08. Space availability	Space for line bays at 132 kV Darwha s/s will be made available after dismantling of existing old 66 kV yard.
09. Area to be served	Western part of Yavatmal District.
10.Objective of the scheme	1) Second source to 132 kV Darwha s/s. 2) Redundancy of supply.

11. Preamble:

Background of scheme-

- 132 kV Darwha s/s is fed from 220 kV Ghatodi s/s via 132 kV Digras s/s & 132 kV Arni s/s.
- In case if 220 kV Ghatodi s/s goes in dark or it will have major fault then 3 nos. of 132 kV substation will go in dark.
- 132 kV Darwha has installed capacity of 2X25 MVA, 132/33 kV T/f's and maximum load reached 32 MVA.
- Hence to provide alternate source to these three substations CE EHV PC O&M, Amravati has proposed construction of 132 kV LILO on Yavatmal – Yavatmal MIDC line at 132 kV Darwha s/s & proposal submitted to CE (D.C&M., CO Mumbai) vide letter dtd.16.02.2017. Salient points of the proposal are mentioned below-
    - Construction of 132 kV SCDC line from 132 kV Yavatmal MIDC to 132 kV Darwha was included in previous STU plan.
    - The work of 132 kV Yavatmal – Yavatmal MIDC line was under construction and route for the same was modified due to new byepass road, MIDC development, forest land & NA activities.
    - The modified route of 132 kV Yavatmal- Yavatmal MIDC line was critically finalized.
    - The proposal for inclusion of MC towers during finalization of modified route was already discussed with higher authorities & said issue in r/o incorporation of MC towers was not accepted.
    - Now in this scenario, the said line cannot be terminated at Yavatmal MIDC s/s. However by making LILO on 132 kV Yavatmal- Yavatmal MIDC line for 132 kV Darwha s/s, the purpose of construction of 132 kV Yavatmal MIDC – Darwha SCDC line can be achieved & there will be minor reduction in route length of line & line will be DCDC instead of SCDC.
    - The space for 2 X 132 kV end bays at 132 kV Darwha s/s will be made available only after dismantling of existing old 66 kV yard at 132 kV Darwha s/s.
- The same proposal received to this section vide Office note dtd. 24.04.2017 from CE (D, C&M).
- This section has submitted the proposal for load flow study to CE (STU). Accordingly CE (STU) vide O.N. dtd.31.05.2017 has recommended the same proposal & informed that the scheme for construction of 132 kV LILO on Yavatmal – Yavatmal MIDC line at 132 kV Darwha s/s will be included in STU Plan of 2016-17 to 2021-22.

Need & justification -

- At present 132 kV Darwha s/s and nearby area is facing low voltage issues as the s/s is fed through 132 kV Digras & Arni s/s.
- The low voltage data of 132 kV Darwha s/s for 2015-16 & 2016-17 is as follows-

2015-16	Minimum Voltage (kV)	2016-17	Minimum Voltage (kV)
Apr-15	121	Apr-16	121
May-15	125	May-16	122
Jun-15	119	Jun-16	124
Jul-15	109	Jul-16	128
Aug-15	114	Aug-16	121
Sep-15	111	Sep-16	125.1
Oct-15	104	Oct-16	125
Nov-15	106	Nov-16	101.9
Dec-15	111	Dec-16	101.5
Jan-16	121	Jan-17	122
Feb-16	120	Feb-17	122
Mar-16	121	Mar-17	122.5

- The maximum loading of 132 kV Darwha, 132 kV Digras & 132 kV Arni s/s are as follows-

Name of s/s	Installed Capacity Details	Load in MVA April 17
132 kV Darwha	132/33 kV,2X25 MVA T/F	32.20
132 kV Digras	132/33 kV,2X25 MVA T/F	31.97
132 kV Arni	132/33 kV,2X25 MVA T/F	24.40
220 kV Ghatodi	220/132 kV, 2X100 MVA ICT	110.92
	220/33 kV, 2X50 MVA TF	5.04
132 kV Yavatmal MIDC	132/33 kV,2X25 MVA T/F	24.40
220 kV Yavatmal	220/132 kV, 100 MVA ICT	70.71
	220/33 kV, 2X50 MVA TF	47.59

- At present 220 kV Yavatmal s/s has 1X100 MVA,220/132 ICT & 2nd 100 MVA,220/132 kV is being commissioned.
- After construction of the said line, load of 132 kV Darwha s/s will be shared by 220 kV Yavatmal s/s which will act as strong and direct 2nd source.
- Hence to avail uninterrupted and good quality of power supply as well as to strengthen EHV network, this line is proposed.
- As per circular no. 10275 dtd. 22.09.2016, it is directed to prepare an estimate of lines by considering Narrow Base M/C Tower for 3 kms from s/s at both the ends. However, during internal review meeting Hon'ble CMD has directed to consider132 KV and 220 KV Narrow Base Multi circuit Towers for urban area, Metro city & wherever necessary. Hence," Being rural area, M/C regular Base towers are considered and the estimates are prepared accordingly.
- **Least cost option –**

  132 kV Yavatmal – Yavatmal MIDC line is the nearest line of radially fed 132 kV Darwha s/s. Hence, proposed scope of work is the least cost option to support the 132 kV Darwha and nearby EHV substations.

12. **Implementation hurdles-** No EHV line crossing, No river crossing, No forest involved. However, RoW issues may arise.

13. (a) The total cost of scheme for the works now to be carried out is **Rs.2654.00 lakhs.**
(Including IDC component **Rs.167.82 lakhs)**

The IDC is worked out on borrowing as per guidelines of MERC.

Cost of scheme is worked out on the basis of revised SOR 2014-15.

(b) Cash flow:

Sr.No.	Particulars	Budget provision for the year in Rs. lakhs		Total in Rs. lakhs
		2017-18	2018-19	
1	Base cost	994.47	1491.71	2486.18
2	IDC	37.29	130.53	167.82
3	**Total**	**1031.76**	**1622.24**	**2654.00**
4	Debt	773.82	1216.68	1990.50
5	Equity	257.94	405.56	663.50
6	**Budget provision**	**1031.76**	**1622.24**	**2654.00**

Budget provision of Rs.1031.76 lakhs will be made in the budget provision of EHV programme 2017-18. Balance amount of the estimated cost will be provided for in the ensuing year.

(c) The scheme will be presented to REC/ PFC or any other financial institution/ bank for financial assistance (loan).

13. The available and usable material at site will be reviewed before preparation of estimate for tendering. Optimum utilization of available material will be ensured to minimize huge quantity lying idle at site account.

14. **MERC Approval-** Since the estimated cost of the scheme exceeds Rs 1000.00 lakhs, the approval of MERC is necessary.

15. Impact on tariff sheets are enclosed at 'Annexure-A'. – C-29

(Rs. Per unit)

2019-20	2020-21	2021-22	2022-23	2023-24
0.0003273	0.0003117	0.0002969	0.0002827	0.0002693

16. Block diagram of the proposed works is shown at 'Annexure- B'. – N- 15

17. Single diagram of the proposed works is shown at 'Annexure- C'. – N-17

18. Scheme is included in STU Plan 2016-17 to 2021-22. The load flow study is enclosed in' Annexure-D'. – C- 33

19. The MSETCL shall exercise all the powers conferred by G.O.M. vide order No. 06/CR-312/NRG 14 to MSETCL under Indian Telegraph Act 1885 for the execution of works covered in the scheme.

20. APPROVAL OF COMPETENT AUTHORITY:

As the scheme cost is more than Rs. 10 crores the scheme proposal is to be submitted to the Board of Directors, MSETCL for administrative approval/sanction as per GO 1 (F&A) Dt. 02.04.2007.If approved by CMD in consultation with Dir(Proj) & Dir(Fin), the scheme proposal will be put up to the Board of Directors.

DRAFT RESOLUTION OF MSETCL BOARD OF DIRECTORS:

The Board of Directors, MSETCL considered the note submitted by The Chief Engineer (Project Schemes) and for the reasons mentioned therein **RESOLVED THAT** the consent of the Board of Director be and is hereby accorded administrative approval for the scheme report of "Construction of LILO on 132 kV Yavatmal – Yavatmal MIDC line at 132 kV Darwha s/s Dist-Yavatmal", at an estimated cost of Rs. **2654.00** lakhs (including IDC of Rs.167.82 lakhs) covering the following scope of work:

1) Construction of 132 kV DC line by making LILO on 220 kV Yavatmal – 132 kV Yavatmal MIDC line at 132 kV Darwha s/s – 34 kms with following scope of work-
   i) 132 kV DC line on MC tower at 132 kV Darwha s/s end - 03 kms.
   ii) 132 kV DC line on DC tower between 132 kV Darwha s/s & LILO point –31 kms.

2) 132 kV line bay– 2 nos. (At 132 kV Darwha s/s)

RESOLVED FURTHER THAT The scheme will be processed for MERC approval, financial assistance from REC / PFC or any other financial institute/bank and turnkey contracting procedures after sanction of the scheme.

RESOLVED FURTHER THAT The Budget provisions will be mapped appropriately in ERP system preferably LoA wise and similarly loan processing be done LoA wise.

RESOLVED FURTHER THAT Board of Directors directed that the time period for issue of LoA under this administrative approval is 18/24 months from the date of issue of Board Resolution and thereafter fresh administrative approval will be required to be taken from Board.

AND RESOLVED FURTHER THAT the C.M.D. of MSETCL be and is hereby empowered to do all such acts, deeds and things necessary to give effect to the above RESOLUTION."

Chief Engineer
(Project Schemes)

Director (Projects) 26-7-17

Director (Finance) 27/7/17

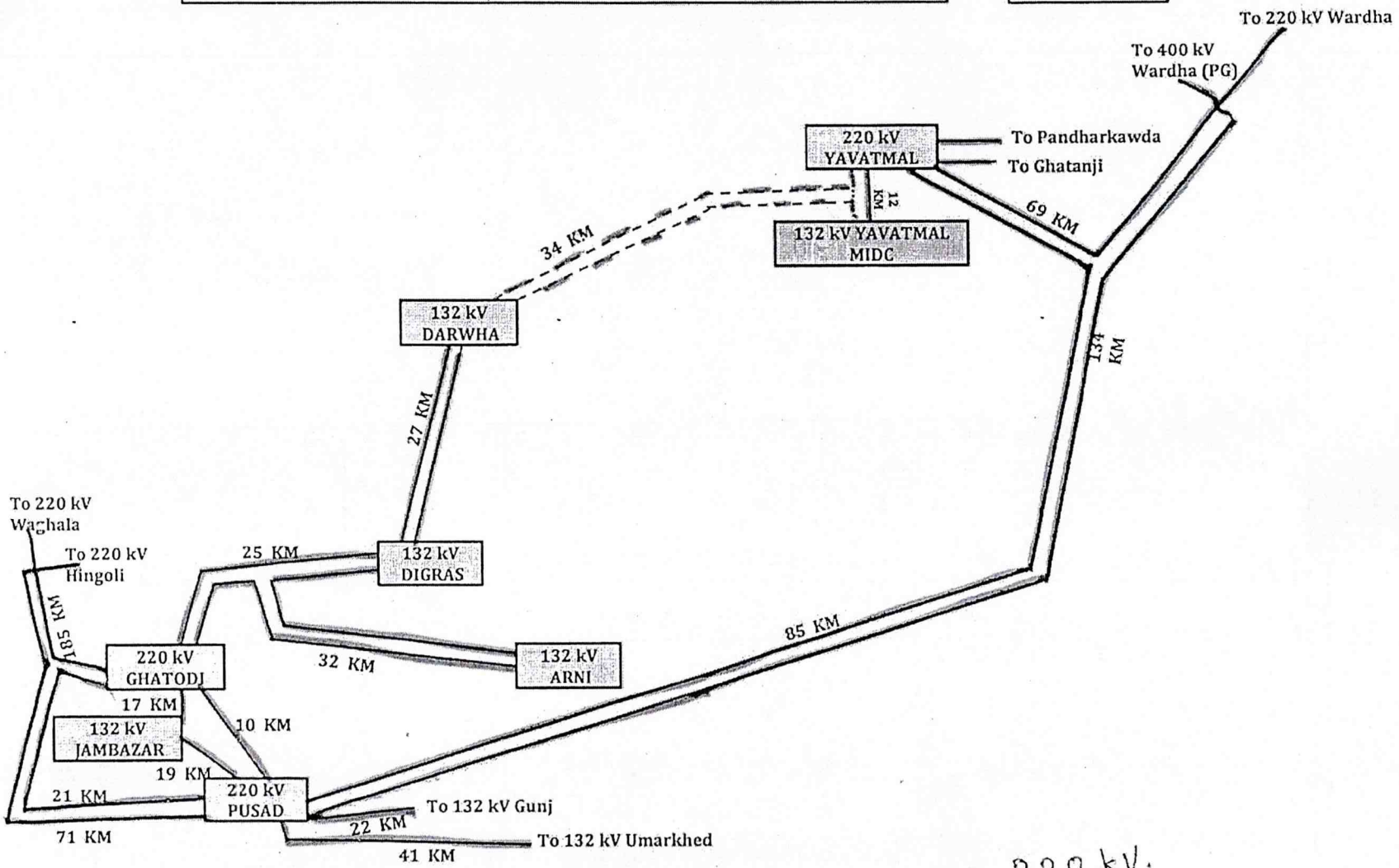
C.M.D., MSETCL 27/7

CE (CPS)

SE (Schemes - III)

"CONSTRUCTION OF LILO ON 132 KV YAVATMAL - YAVATMAL MIDC LINE AT 132 KV DARWHA S/S, DIST-YAVATMAL"

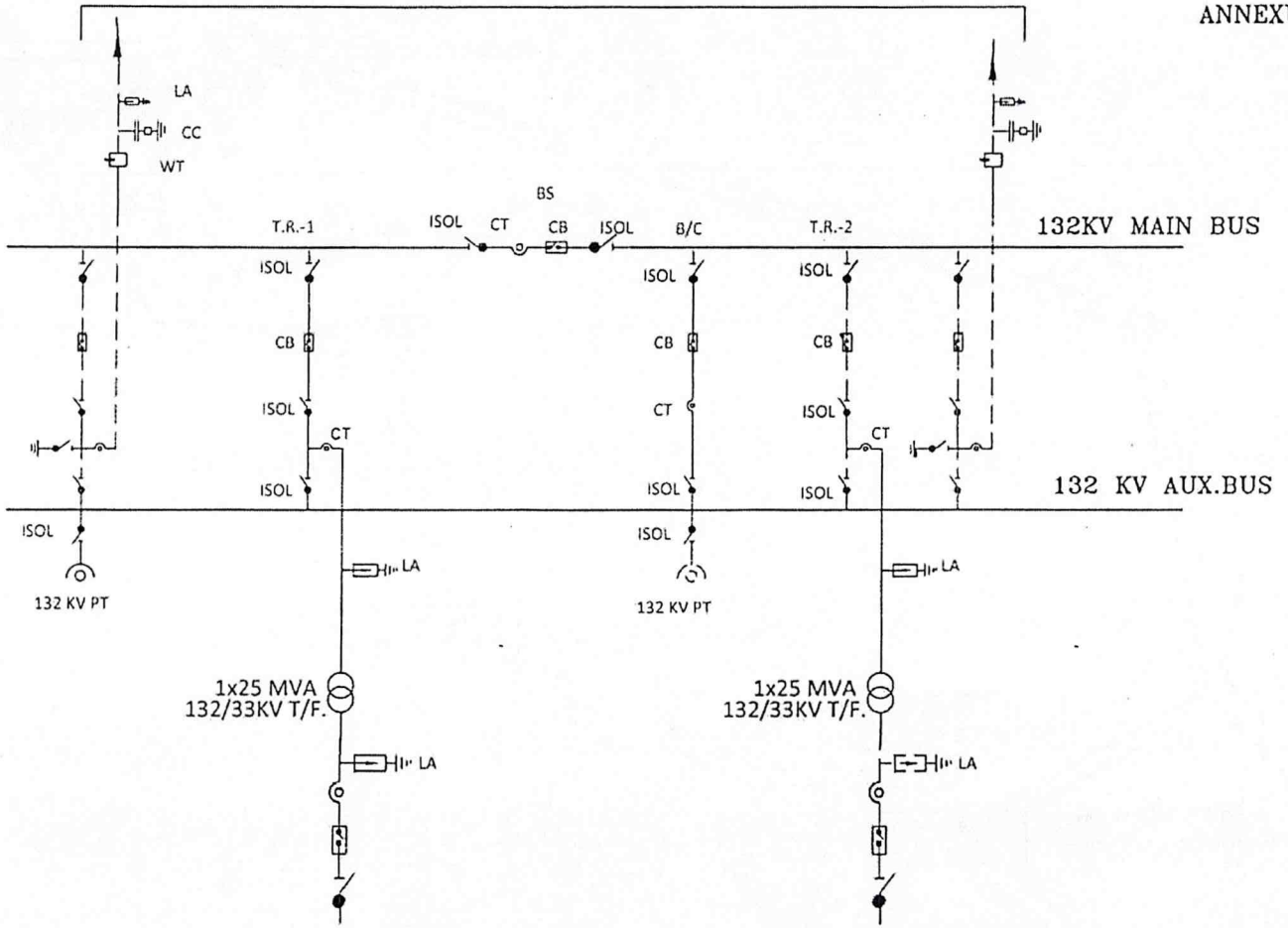
ANNEXURE-B



37

132 KV LILO ON YAVATMAL- YAVATMAL MIDC LINE AT 132 KV DARWHA.

ANNEXURE–C



CONSTRUCTION OF 132 KV LILO LINE ON 132 KV YAVATMAL - YAVATMAL MIDC AT 132 KV DARWHA S/S.							MSETCL
DRN. CHAWATHE	CHEKD.	SUB.	APPD.	SCALE	DATE 20.06.2017	DRG. NO.	TR. PROJECT

Feasibility report for Transmission Project scheme

IN PRINCIPLE CLEARANCE STAGE

Particulars in the scheme report

1) **Title (Name of scheme)** : "Construction of LILO on 132 kV Yavatmal – Yavatmal MIDC line at 132 kV Darwha s/s Dist-Yavatmal"

2) **Estimated cost** : Rs. 2654.00 lakhs
(including IDC component Rs.167.82 lakhs)

3) **Brief scope of work** :
1) Construction of LILO on 132 kV Yavatmal - Yavatmal MIDC line at 132 kV Darwha s/s- 34 kms with following scope of work-
   i) 132 kV DC line on MC tower at 132 kV Darwha s/s- 03 kms.
   ii) 132 kV DC line on DC tower between 132 kV Darwha & LILO point. – 31 kms.
2) 132 kV line bay– 2 nos. (at 132 kV Darwha s/s)

4) **Load flow study** : Enclosed separately.

5) **Objective / justification** :
1) Second source to 132 kV Darwha s/s.
2) Redundancy of supply.

6) **Proposed funding arrangement** : The scheme will be presented to REC/ PFC or any other financial institution/ bank for financial assistance (loan).

7) **Timeframe/Phasing of expenditure** : 2017 – 2018 : Rs. 1031.76 Lakhs
2018 – 2019 : Rs. 1622.24 Lakhs

Superintending Engineer
(Scheme - III)

C-1

COST ESTIMATE OF "CONSTRUCTION OF LILO ON 132 KV YAVATMAL - YAVATMAL MIDC LINE AT 132 KV DARWHA S/S, DIST-YAVATMAL"

ABSTRACT

AMOUNT IN RS.LAKHS

SR.NO.	PARTICULARS	TOTAL	REMARKS
1	CIVIL WORK	90.54	SCHEDULE-I
2	SUBSTATION WORK	272.27	SCHEDULE-II
3	TRANSMISSION LINE WORK	2123.37	SCHEDULE-III
	TOTAL *Including overall Centages against this scheme in Rs.Lakhs 202.79*	**2486.18**	
4	IDC	167.82	CALCULATED
	GRAND TOTAL	**2654.00**	
	SAY RS.	**2654**	**LAKHS**

THE ESTIMATES ARE PREPARED BY APPLYING RATES OF LATEST SOR & CALCULATIONS ARE CORRECT.

SUPERINTENDING ENGINEER

(SCHEME - III)

SCHEDULE-I

CIVIL WORK

AMOUNT IN RS.LAKHS

SR. NO.	PARTICULARS	AMOUNT	REMARKS
1 .	FOUNDATION WORK OF LINE BAYS	76.04	ANNEXURE-I
	SUB TOTAL-I	76.04	
2	CONTINGENCIES 3% ON SUB TOTAL-I (Quantity Variation)	2.28	
	SUB TOTAL-II	78.32	
4	ADD. CENTAGES 10.75% ON SUB TOTAL-II (General Establishment Charges etc)	8.42	
5	ADD. PROVISION FOR PRICE VARIATION 5 % ON SUB TOTAL I	3.80	
	TOTAL	90.54	

EXECUTIVE ENGINEER

(SCHEMES - III)

ANNEXURE-I

FOUNDATION WORK OF LINE BAYS

AMOUNT IN RS.LAKHS

SR. NO.	PARTICULARS	UNIT	QTY.	RATE/UNIT	AMOUNT	REMARK
1	Concrete for foundation for line bays					O.O.N. 492 dtd.11.11.14
	A) 132 kV Line Bay	BAY	2	35.00	70.00	
Sub Total I					**70.00**	
2	Erection Charges @ 7.5% On Sub Total- I				5.25	
3	Service tax @ 15% on erection charges				0.79	
Total					**76.04**	

EXECUTIVE ENGINEER
(SCHEMES - III)

SCHEDULE-II

SUBSTATION WORK

AMOUNT IN RS.LAKHS

SR. NO.	PARTICULARS	AMOUNT	REMARKS
1	132KV LINE BAY - 2 Nos. @ Rs.91.81 lakh/bay	183.62	ANNEXURE-II
2	PLCC EQUIPMENTS	42.44	ANNEXURE-III
3	ABT METER	2.60	ANNEXURE-IV
SUB TOTAL-I		**228.66**	
4	CONTINGENCIES 3% ON SUB TOTAL I (Quantity Variation)	6.86	
SUB TOTAL-II		**235.52**	
5	ADD. CENTAGES 10.75% ON SUB TOTAL-II (General Establishment Charges etc)	25.32	
6	ADD. PROVISION FOR PRICE VARIATION 5 % ON SUB TOTAL I	11.43	
TOTAL		**272.27**	

EXECUTIVE ENGINEER

(SCHEMES - III)

ANNEXURE-II

COST ESTIMATE FOR 132 KV LINE BAYS (132 KV TWO BUS)

AMOUNT IN RS. LAKHS

SR.NO.	PARTICULARS	UNIT	QTY.	RATE/ UNIT	AMOUNT	REMARK
1	Circuit Breaker	SET	1	6.98	6.98	SOR 2014-15, S-5, SR.NO.19
2	Isolator without ES	SET	2	2.23	4.46	SOR 2014-15, S-5, SR.NO.21
3	Isolator with ES	SET	1	2.39	2.39	SOR 2014-15, S-5, SR.NO.20
4	Current Transformer	NO	3	1.37	4.11	SOR 2014-15, S-5, SR.NO.23
5	Lightening Arrestor	NO	3	0.39	1.17	SOR 2014-15, S-5, SR.NO.26
6	C & R Panel for line	SET	1	8.06	8.06	SOR 2014-15, S-5, SR.NO.58
7	Control Cable	BAY	1	3.03	3.03	ELECTRICAL CALCULATION
8	Structure	BAY	1	12.69	12.69	
9	Earthing & Lighting	BAY	1	4.88	4.88	
10	Fire Fighting Equipment	SET	1	1.70	1.70	SOR 2014-15, S-6, SR.NO.21
11	Bus Bar And Insulator	BAY	2	14.23	28.46	ELECTRICAL CALCULATION
Sub Total I					**77.93**	
12	Spares for LA, CT, PT Etc. @ 3% on Sub Total I				2.34	
Sub Total II					**80.27**	
13	Transportation to site 5%, Insurance 1% Total 6% on Sub Total-II				4.82	
14	Erection charges @ 7.5% on Sub Total-I				5.84	
15	Service tax @15 % on Erection charges				0.88	
Total					**91.81**	

EXECUTIVE ENGINEER

(SCHEMES - III)

ANNEXURE-III

PLCC EQUIPMENTS

AMOUNT IN RS.LAKHS

SR.NO.	PARTICULARS	UNIT	QTY.	RATE/UNIT	AMOUNT	REMARK
1	PLCC Line Equipments at 132 kV Darwha s/s	NO	2	21.22	42.44	ANNEXURE-III A
Total					42.44	

EXECUTIVE ENGINEER

(SCHEMES - III)

ANNEXURE-III A

COST ESTIMATE OF PLCC LINE EQUIPMENTS ON ONE END OF 132 KV OR 100 KV TRANSMISSION LINE

AMOUNT IN RS.LAKHS

SR.NO.	PARTICULARS	UNIT	QTY.	RATE/UNIT	AMOUNT	REMARK
1	Wave trap 630 A/0.5 mH with three connecting clamps	NOS.	2	2.93	5.86	SOR 2014-15, S-5, SR.NO.31
2	Coupling Capacitors for 132 KV	NOS.	2	1.87	3.74	SOR 2014-15, S-5, SR.NO.30
3	Co-axial cable 75 ohms unbalanced	RMT	0.5	1.49	0.75	SOR 2014-15, S-6, SR.NO.20
4	Twin channel carrier set Protection Coupler Double Circuit		1	6.95	6.95	SOR 2014-15, S-7, SR.NO.77
5	Coupling Device for phase to phase coupling (200W)	SET	1	0.57	0.57	SOR 2014-15, S-6, SR.NO.01
6	Cost of civil works	L.S.			0.15	CIVIL CALCULATION
Sub Total- I					**18.02**	
7	Cost of spares @ 3% on Sub Total I				0.54	
Sub Total-II					**18.56**	
8	Transportation, Insurance @ 6 % on Sub Total-II				1.11	
9	Cost of installation testing and commissioning @ 7.5% on Sub Total-I				1.35	
10	Service Tax @ 15 % on item no 9				0.20	
Total					**21.22**	

EXECUTIVE ENGINEER
(SCHEMES - III)

ANNEXURE - IV

ABT METERING EQUIPMENTS

(AMOUNT IN RS. LAKHS)

SR. NO.	PARTICULARS	UNIT	QTY.	RATE/UNIT	AMOUNT	REMARKS
1	ABT metering at 132 kV Darwha s/s	NO.	2	1.30	2.60	ANNEXURE- IV A
TOTAL					2.60	

EXECUTIVE ENGINEER

(SCHEMES-III)

ANNEXURE - IV A

BREAK UP OF ABT METERING SYSTEM AT 220 /132 kV s/s ON ONE END OF 132 KV OR 100 KV TRANSMISSION LINE

AMOUNT IN LAKHS

SR. NO.	PARTICULARS	UNIT	QTY.	RATE/UNIT	AMOUNT	REMARK
	INFRASTRUCTURE FOR ABT METERING SYSTEM					
1	ABT Meter (with Modbus Protocol)	NO.	1	0.40	0.40	COST DATA 2011-12& 2012-13 PAGE NO.41 SR.NO.01
2	Cable, Connector and accessories thereof.	SET	1	0.30	0.30	COST DATA 2011-12& 2012-13 PAGE NO.41 SR.NO.09
3	Energy Management & Monitoring Software at Sub-Station	NO.	1	0.40	0.40	COST DATA 2011-12& 2012-13 PAGE NO.41 SR.NO.10
4	Installation charges of ABT Metering System	NO.	1	0.20	0.20	LUMPSUM
TOTAL					1.30	

EXECUTIVE ENGINEER

(SCHEMES-III)

SCHEDULE III

TRANSMISSION LINE WORK

AMOUNT IN RS.LAKHS

SR. NO.	PARTICULARS	AMOUNT	REMARKS
1	TRANSMISSION LINE	1526.81	ANNEXURE-V
SUB TOTAL-I		**1526.81**	
2	CONTINGENCIES 3% ON SUB TOTAL - I (Quantity Variation)	45.80	
SUB TOTAL-II		**1572.61**	
3	ADD. CENTAGES 10.75% ON SUB TOTAL-II (General Establishment Charges etc)	169.06	
4	COMPENSATION @ 15% ON SUB TOTAL I (Right of Way etc)	229.02	
5	STATUTORY REQUIREMENT@ 5% ON SUB TOTAL I (Forest Clearances etc)	76.34	
6	ADD. PROVISION FOR PRICE VARIATION 5 % ON SUB TOTAL I	76.34	
TOTAL		**2123.37**	

EXECUTIVE ENGINEER

(SCHEMES - III)

C-21

ANNEXURE-V

132 KV TRANSMISSION LINE

AMOUNT IN RS. LAKHS

SR.NO.	PARTICULARS	UNIT	QTY.	RATE/UNIT	AMOUNT	REMARK
1	Construction of LILO on 132 kV Yavatmal - Yavatmal MIDC line by using DC line on MC tower at 132 kV Darwha s/s end Using 0.2 Sq.Inch ACSR (Panther)	KM	3	78.43	235.29	ANNEXURE-V A
2	Construction of LILO on 132 kV Yavatmal - Yavatmal MIDC line by using DC line on DC tower at 132 kV Darwha s/s Using 0.2 Sq.Inch ACSR (Panther)	KM	31	41.66	1291.52	ANNEXURE-V B
Total					**1526.81**	

EXECUTIVE ENGINEER

(SCHEMES - III)

ANNEXURE- V-A

BREAK-UP ESTIMATE FOR 10 KMS. OF 132/110/100 KV D/C LINE ON M/C TOWER.

(i)	Conductor Size :	0.2 Sq.inch ACSR (Panther)
(ii)	Earthwire Size :	7/3.15 mm
(iii)	Span	300 Mtrs

AMOUNT IN RS.LAKHS

SR.NO.	PARTICULARS	UNIT	QTY.	RATE/UNIT	AMOUNT	REMARK
1	Survey & Tree cutting		L.S.		2.04	SOR 2014-15, E-1, SR.NO.(A+B+C) 8% Inflation
2	(i) Tower	M.T.	386.35	0.85	328.40	SOR 2014-15, S-3, SR.NO.01
	(ii) Tower Accessories		L.S.		3.50	LUMPSUM
	(iii) Nut Bolts	M.T.	13.60	1.21	16.46	SOR 2014-15, S-3, SR.NO.02
3	Conductor (including 2.5% sag and wastage)	Km	61.50	1.49	91.64	SOR 2014-15, S-1, SR.NO.02
4	Groundwire (including 2.5% sag and wastage)	Km	10.25	0.45	4.61	SOR 2014-15, S-3, SR.NO.23
5	Insulators,Hardwares, Conductor & Groundwire accessories	-	L.S.		54.16	ELECTRICAL CALCULATION
Sub Total I					**500.80**	
6	Spares (@ 3% on item 2 to 5)				14.96	
Sub Total II					**515.76**	
7	Transportation to site 5%, Insurance 1% (Total 6 % on Sub Total II)				30.95	
8	Concrete for foundations & excavation and stubsettings	-	L.S.	L.S.	178.95	ELECTRICAL CALCULATION
9	Erection & stringing charges @ 7.5 % on Sub Total I & Sr. no. 8				50.98	
10	Service Tax 15 % on Erection & stringing charges.				7.65	
Total					**784.29**	
Cost of 132/110/100 kV D/C line on M /C Tower for ONE km.					**78.43**	

EXECUTIVE ENGINEER
(SCHEMES - III)

ANNEXURE- V B

BREAK-UP ESTIMATE FOR 10 KMS. OF 132/110/100 KV D/C LINE ON D/C TOWER.

(i)	Conductor Size :	0.2 Sq.inch ACSR (Panther)
(ii)	Earthwire Size :	7/3.15 mm
(iii)	Span	320 Mtrs

AMOUNT IN RS.LAKHS

SR.NO.	PARTICULARS	UNIT	QTY.	RATE/UNIT	AMOUNT	REMARK
1	Survey & Tree cutting		L.S.		2.04	SOR 2014-15, E-1, SR.NO.(A+B+C) 8% Inflation
2	(i) Tower	M.T.	144.93	0.85	123.19	SOR 2014-15, S-3, SR.NO.01
	(ii) Tower Accessories		L.S.		3.50	LUMPSUM
	(iii) Nut Bolts	M.T.	5.48	1.21	6.63	SOR 2014-15, S-3, SR.NO.02
3	Conductor (including 2.5% sag and wastage)	Km	61.50	1.49	91.64	SOR 2014-15, S-1, SR.NO.02
4	Groundwire (including 2.5% sag and wastage)	Km	10.25	0.45	4.61	SOR 2014-15, S-3, SR.NO.23
5	Insulators,Hardwares, Conductor & Groundwire accessories	-	L.S.		54.16	ELECTRICAL CALCULATION
Sub Total I					**285.77**	
6	Spares (@ 3% on item 2 to 5)				8.51	
Sub Total II					**294.28**	
7	Transportation to site 5%, Insurance 1% (Total 6 % on Sub Total II)				17.66	
8	Concrete for foundations & excavation and stubsettings	-	L.S.	L.S.	73.68	ELECTRICAL CALCULATION
9	Erection & stringing charges @ 7.5% on Sub Total I & Sr. no. 8				26.96	
10	Service Tax 15 % on Erection & stringing charges.				4.04	
Total					**416.62**	
Cost of 132/110/100 kV D/C line on D/C Tower for ONE km.					**41.66**	

EXECUTIVE ENGINEER

(SCHEMES - III)

COST ESTIMATE OF "CONSTRUCTION OF LILO ON 132 KV YAVATMAL - YAVATMAL MIDC LINE AT 132 KV DARWHA S/S, DIST-YAVATMAL"

ABSTRACT FOR IDC

AMOUNT IN RS.LAKHS

SR. NO.	PARTICULARS	AMOUNT	REMARKS
1	FOUNDATION WORK	76.04	Schedule-I CIVILWORK
2	132KV LINE BAY	183.62	Schedule-II SUBSTATION WORK
3	PLCC EQUIPMENTS	42.44	
4	ABT METER	2.60	
5	TRANSMISSION LINE	1526.81	Schedule-III TR. LINE WORK
	SUB TOTAL-I	1831.51	
6	CONTINGENCIES 3% ON SR. NO. 01 (CIVIL) (Quantity Variation)	2.28	
7	CONTINGENCIES 3% ON SR. NO. 02 TO 04 (SUBSTATION) (Quantity Variation)	6.86	
8	CONTINGENCIES 3% ON SR. NO. 05 (TR. LINE) (Quantity Variation)	45.80	
	SUB TOTAL-II	1886.45	
9	ADD. CENTAGES 10.75% ON SUB TOTAL-II (General Establishment Charges etc)	202.79	
10	COMPENSATION @ 15% ON SR. NO. 05 (TR. LINE) (Right of Way etc)	229.02	
11	STATUTORY REQUIREMENT@ 5% ON SR. NO. 05 (TR. LINE) (Forest Clearances etc)	76.34	
12	ADD. PROVISION FOR PRICE VARIATION 5 % ON SUB TOTAL I	91.58	
	SUB TOTAL- III	2486.18	
13	IDC	167.82	CALCULATED
	GRAND TOTAL	2654.00	

EXECUTIVE ENGINEER
(SCHEMES - III)

IMPACT ON TARIFF									Annexure A
	Name of the Scheme :	COST ESTIMATE OF "CONSTRUCTION OF LILO ON 132 KV YAVATMAL - YAVATMAL MIDC LINE AT 132 KV DARWHA S/S, DIST-YAVATMAL"							
	Commissioning Year- 2018-19								
	Interest on borrowing		10.00%						
	Debt : Equity Ratio		75%		25%				
	Equity flowing equally								
A	B	C	D	E	F	G	H	I	J
						Rs. in Lakhs			
				Cost of the Scheme		2654			
	Description.	1	2	3	4	5	6		Total
	Year	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	
	Base cost	994.47	1491.71						2486.18
	Borrowing	745.85	1118.78						1864.64
	EQUITY	248.62	372.93						621.55
	Total Interest	37.29	130.52						167.82
	Interest funded by borrowing	27.97	97.89						125.86
	Interest funded by equity	9.32	32.63						41.95
	Total borrowing	773.82	1216.67						1990.50
	Total equity	257.94	405.56						663.50
	Total cash flow	1031.76	1622.23						2654.00
	Base cost	2486.18		Borrowing	1990.50	0.75			
	IDC	167.82		EQUITY	663.50	0.25			
	Total Project Cost	2654.00	Total Base Cost		2654.00				
	Expenses								
1	Return on equity @ 15.5 % per			102.84	102.84	102.84	102.84	102.84	
2	Interest on Loan (10.00 %)								
	745.85			74.59	74.59	74.59	74.59	74.59	
	1118.78			111.88	111.88	111.88	111.88	111.88	
3	Depreciation(sheet attached)			140.13	140.13	140.13	140.13	140.13	
4	O & M Expenses @ 3% on Asset Commissioned.			79.62	79.62	79.62	79.62	79.62	
5	Income Tax (on Return on equity) @30%			30.85	30.85	30.85	30.85	30.85	
6	Contribution to contingency Reserves 0.5 % of Gross Fixed Asset at the beginning of the year			13.27	13.27	13.27	13.27	13.27	
	Sub Total			553.18	553.18	553.18	553.18	553.18	
7	Interest on working Capital								
7(a)	a)One month of the amount of O&M expense			6.63	6.63	6.63	6.63	6.63	
7(b)	1/12th of book value of stores, materials and supplies at the end of financial year			2.21	2.21	2.21	2.21	2.21	
	b)One and a half months of the expected revenue from transmission charges at the prevailing tariffs			70.69	70.69	70.69	70.69	70.69	
	Total working capital			79.54	79.54	79.54	79.54	79.54	
	Interest on working capital			12.33	12.33	12.33	12.33	12.33	
	Total Expense due to this project			565.51	565.51	565.51	565.51	565.51	
9	Million Units sent by InSTS in Yr 2014 -2015 (135372.476) MUs)(accordingly assuming rise of 5% per year)	156710.56	164546.09	172773.40	181412.06	190482.67	200006.80	210007.14	
	Impact on Tariff in Rs. Per Unit			0.0003273	0.0003117	0.0002969	0.0002827	0.0002693	

EXECUTIVE ENGINEER (SCH-III)

COST ESTIMATE OF "CONSTRUCTION OF LILO ON 132 KV YAVATMAL - YAVATMAL MIDC LINE AT 132 KV DARWHA S/S, DIST-YAVATMAL"

Annexure A

Depreciation

TITLE	% DEPRICIATION	Base value	14.0725 % loading for Cent. (& Contin.	15 % Loading for Compensation & 5 % loading for statutory clearances on Tr. Line cost	5% Loading for price variation on base cost	Total cost 3+4+5+6	Cost of the assets to be commissioned by 2017-18		Cost of the assets to be commissioned by 2018-19		17-18	18-19 (8+9)* col.2/100	19-20 (10+11)* col.2/100	20-21 (10+11)* col.2/100	21-22 (10+11)* col.2/100	22-23 (10+11)* col.2/100	23-24 (10+11)* col.2/100
1	2	3	4.00	5	6	7	8	9	10	11	12	13	14	15	16	17	18
							Asset cost	IDC loading	Asset cost	IDC loading							
Civil works 76.04																	
Land + Development		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00							
Buildings & Quarters	3.34	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
Foundation & Rail track	5.28	76.04	10.70		3.80	90.54	36.22	1.36	90.54	6.11		1.98	5.10	5.10	5.10	5.10	5.10
Transmission Line 1526.81																	
Transmission line	5.28	1526.81	214.86	305.36	76.34	2123.37	849.35	31.85	2123.37	143.33		46.53	119.68	119.68	119.68	119.68	119.68
Sub-station works 228.66																	
Electrification	5.28	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
Battery Set	5.28	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
Other equipments.	5.28	228.66	32.18		11.43	272.27	108.91	4.08	272.27	18.38		5.97	15.35	15.35	15.35	15.35	15.35
Total of Column		1831.51	257.74	305.36	91.58	2486.19	994.47	37.29	2486.18	167.82		54.48	140.13	140.13	140.13	140.13	140.13
							994	37.29	2486.18	167.82							
						MF	0.4	0.0375	1	0.0675							

Cost of the Scheme :	2654

Assumption:

Depreciation is calculated using Straight line method assuming Salvage value of 10%, as per MERC guidelines

Depreciation =(Equipment cost-salvage value)/Life of equipment

EXECUTIVE ENGINEER
(SCHEMES - III)

46

C-33

C.E.(Proj./ Schemes)..907.
Date..31.5.17.

C E (STU) S81
Date:-31/5/17

महापारेषण

STATE TRANSMISSION UTILITY

No: MSETCL/CO/CE-STU/SYS/211A

Office note

Sub. : System study for LILO on 132 kV Yavatmal-Yavatmal MIDC line at 132 kV Darwha s/s under Amravati Zone.

Ref.: O.N. no. 177 dt. 17.05.2017 from C.E. (Proj. & scheme).

At present Darwha is fed from 220 kV kV Ghatodi ss via 132 kV Arni & Digras ss, through radial feeder. Distance between source ss to Darwha ss is @125 kM. Therefore Darwha & nearby area is facing the low voltage problem. In order to address the low volt. problem, 132 kV Yavatmal-Darwha SCDC line (40 kM) is proposed in STU plan (2016-17 to 2021-22).

However, vide office note under ref. it is now requested to carry out the system study for LILO on 132 kV Yavatmal-Yavatmal MIDC line at 132 kV Darwha s/s (68 Ckt kM).

Three case studies are carried out.

Base case: Existing network.

Case 1: 132 kV Yavatmal-Darwha SCDC line **40 kM (as per STU plan)** from the study it is observed that there is improvement in voltages.

Case 2: LILO on one circuit of 132 kV Yavatmal-Yavatmal MIDC line at 132 kV Darwha s/s **(68 Ckt kM).** From study it is observed that there is improvement in bus voltages as compare to Case 1. In this case 132 kV Yavatmal MIDC s/s will get connected to 2nd source, in case of any failure on 132 kV Yavatmal-Yavatnmal MIDC line s/s. Hence it is recommended.

The details of the study is enclosed herewith alongwith the SLD.

C. E. (STU)

Enclosed: as above.

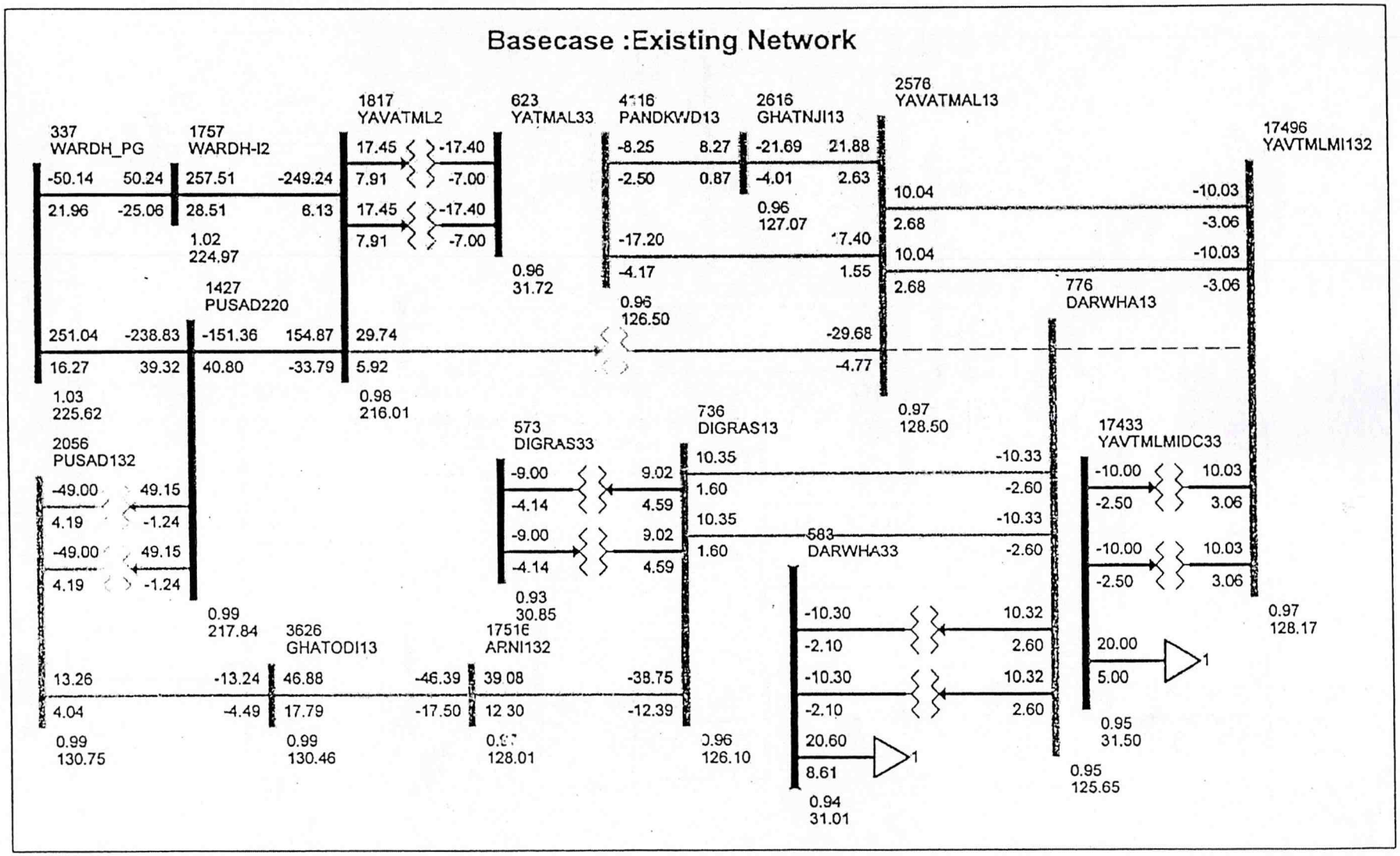
C.E.(Proj &sche.) :

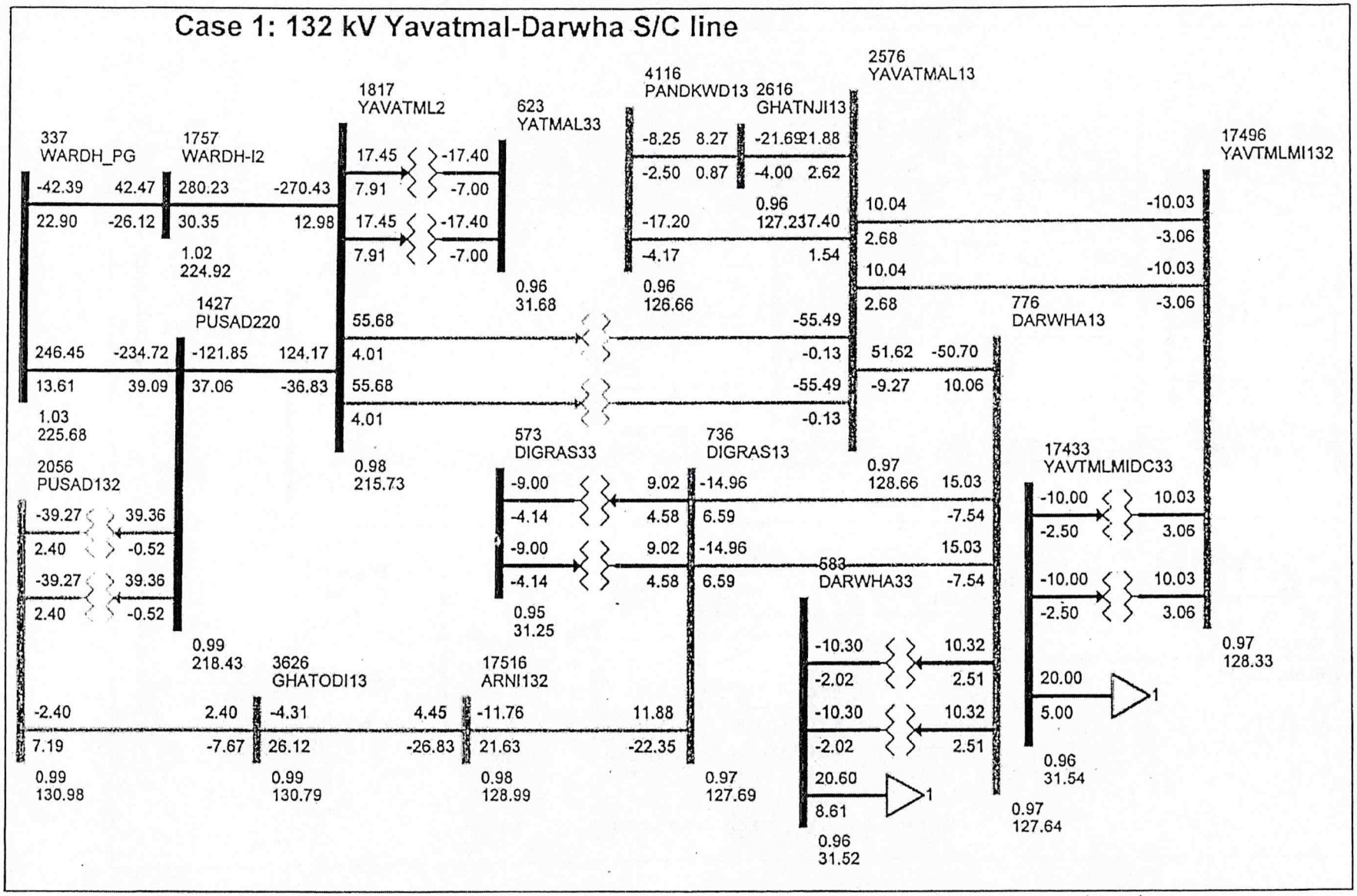
Copy to: The EE (STU, Planning)

Sysstudy/205/20.052017

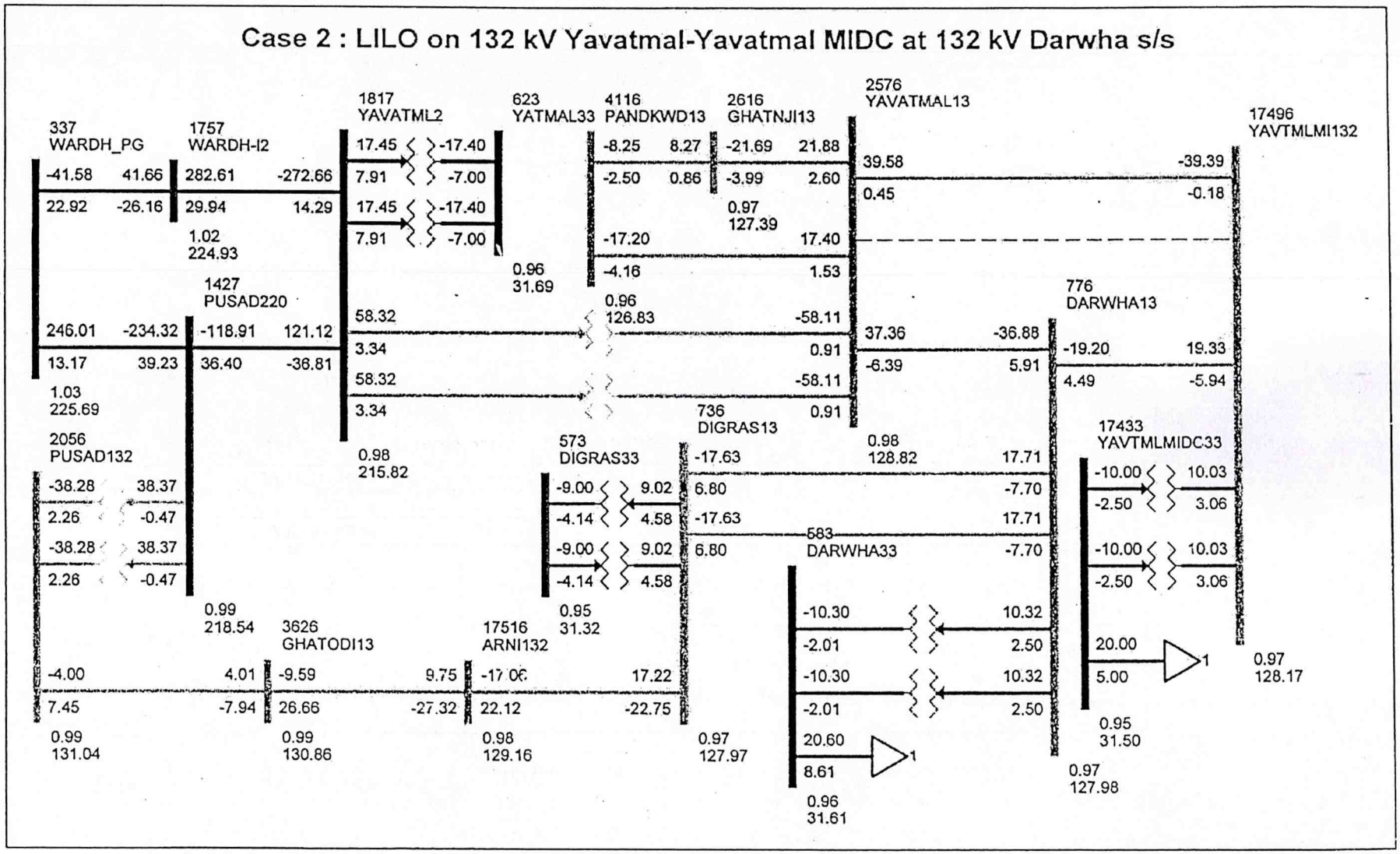
EE (Schemes-III)
for n.d.
2/6.

AE (m)
Pl. put up
2/6


Basecase :Existing Network
337
WARDH_PG
-50.14
50.24
21.96
-25.06
1757
WARDH-I2
257.51
-249.24
28.51
6.13
1.02
224.97
1817
YAVATML2
17.45
-17.40
7.91
-7.00
17.45
-17.40
7.91
-7.00
623
YATMAL33
0.96
31.72
4116
PANDKWD13
-8.25
8.27
-2.50
0.87
-17.20
17.40
-4.17
1.55
0.96
126.50
2616
GHATNJI13
-21.69
21.88
-4.01
2.63
0.96
127.07
2576
YAVATMAL13
10.04
-10.03
2.68
-3.06
10.04
-10.03
2.68
-3.06
17496
YAVTMLMI132
776
DARWHA13
1427
PUSAD220
251.04
-238.83
-151.36
154.87
29.74
16.27
39.32
40.80
-33.79
5.92
-29.68
-4.77
1.03
225.62
0.98
216.01
0.97
128.50
2056
PUSAD132
-49.00
49.15
4.19
-1.24
-49.00
49.15
4.19
-1.24
573
DIGRAS33
-9.00
9.02
-4.14
4.59
-9.00
9.02
-4.14
4.59
0.93
30.85
736
DIGRAS13
10.35
-10.33
1.60
-2.60
10.35
-10.33
1.60
-2.60
583
DARWHA33
-10.30
10.32
-2.10
2.60
-10.30
10.32
-2.10
2.60
20.60
8.61
1
0.94
31.01
17433
YAVTMLMIDC33
-10.00
10.03
-2.50
3.06
-10.00
10.03
-2.50
3.06
20.00
5.00
1
0.95
31.50
0.97
128.17
0.95
125.65
0.99
217.84
3626
GHATODI13
1751E
ARNI132
13.26
-13.24
46.88
-46.39
39.08
-38.75
4.04
-4.49
17.79
-17.50
12.30
-12.39
0.99
130.75
0.99
130.46
0.96
126.10


Case 1: 132 kV Yavatmal-Darwha S/C line
337
WARDH_PG
1757
WARDH-I2
1817
YAVATML2
623
YATMAL33
4116
PANDKWD13
2616
GHATNJI13
2576
YAVATMAL13
17496
YAVTMLMI132
1427
PUSAD220
776
DARWHA13
2056
PUSAD132
573
DIGRAS33
736
DIGRAS13
17433
YAVTMLMIDC33
583
DARWHA33
3626
GHATODI13
17516
ARNI132
-42.39 42.47
22.90 -26.12
280.23 -270.43
30.35 12.98
1.02
224.92
17.45 -17.40
7.91 -7.00
17.45 -17.40
7.91 -7.00
0.98
215.73
0.96
31.68
-8.25 8.27
-2.50 0.87
-21.69 21.88
-4.00 2.62
0.96
127.23
-17.20 7.40
-4.17 1.54
0.96
126.66
10.04 -10.03
2.68 -3.06
10.04 -10.03
2.68 -3.06
246.45 -234.72
13.61 39.09
-121.85 124.17
37.06 -36.83
1.03
225.68
55.68 -55.49
4.01 -0.13
55.68 -55.49
4.01 -0.13
51.62 -50.70
-9.27 10.06
0.97
128.66
15.03
-39.27 39.36
2.40 -0.52
-39.27 39.36
2.40 -0.52
-9.00 9.02
-4.14 4.58
-9.00 9.02
-4.14 4.58
0.95
31.25
-14.96 6.59
-14.96 6.59
-7.54
15.03
-7.54
-10.00 10.03
-2.50 3.06
-10.00 10.03
-2.50 3.06
20.00
5.00
1
0.96
31.54
0.97
128.33
-10.30 10.32
-2.02 2.51
-10.30 10.32
-2.02 2.51
20.60
8.61
1
0.96
31.52
0.97
127.64
0.99
218.43
-2.40 2.40
7.19 -7.67
-4.31 4.45
26.12 -26.83
-11.76 11.88
21.63 -22.35
0.99
130.98
0.99
130.79
0.98
128.99
0.97
127.69

Case 2 : LILO on 132 kV Yavatmal-Yavatmal MIDC at 132 kV Darwha s/s



LILO on 132 kV Yavatmal- Yavatmal MIDC line at 132 kV Darwha s/s.

sr no	Name of Line	Bus	Base case			Case 1 : 132 kV Yavatmal-Darwha SC line			Case 2 : LILO on 132 kV Yavatmal- Yavatmal MIDC line at 132 kV Darwha s/s.		
			Volt. In kV	State losses in MW	Zone losses in MW	Volt. In kV	State losses in MW	Zone losses in MW	Volt. In kV	State losses in MW	Zone losses in MW
1	LILO on 132 kV Yavtmal-Yavtmal MIDC at Darwha s/s	132 kV Yavtmal	128.5	1213	80.1	128.66	1210.8	79.8	128.82	1210.9	79.9
		132 kV Yavatmal MIDC	128.17			128.33			128.17		
		132 kV Darwha	125.65			127.64			127.98		