सत्यमेव जयते

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
विद्युत प्रणाली संचार विकास प्रभाग
Power System Communication Development Division
****

On behalf of
Central Level Power & Telecommunication Co-ordination Committee

No: As assigned **Date:** As assigned

Subject: Provisional Certificate of Approval for the Route of Power Line of M/s. NTPC , Ramagundam.

Provisional Route Approval Certificate for the following listed lines of M/s. NTPC , Ramagundam is annexed to this letter:

S.No.	Name
1	33KV Feeder No. 301, UG Cable from Block No. 1 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 3.00 kms)
2	33KV Feeder No. 302, UG Cable from Block No. 2 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 3.50 kms)
3	33KV Feeder No. 303, UG Cable from Block No. 3 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 4.10 kms)
4	33KV Feeder No. 304, UG Cable from Block No. 4 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 4.50 kms)
5	33KV Feeder No. 305, UG Cable from Block No. 5 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 5.00 kms)
6	33KV Feeder No. 306, UG Cable from Block No. 6 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 5.50 kms)
7	33KV Feeder No. 307, UG Cable from Block No. 7 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 5.10 kms)

8	33KV Feeder No. 308, UG Cable from Block No. 8 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 5.60 kms)
9	33KV Feeder No. 309, UG Cable from Block No. 9 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 6.70 kms)
10	33KV Feeder No. 3010, UG Cable from Block No. 10 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 6.50 kms)
11	33KV Feeder No. 3011, UG Cable from Block No. 11 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 7.00 kms)
12	33KV Feeder No. 3012, UG Cable from Block No. 12 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 7.50 kms)
13	33KV Feeder No. 3013, UG Cable from floating solar Block No. 1 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- Peddapalli (Length: - 4.50 kms)
14	33KV Feeder No. 3014, UG Cable from floating solar Block No. 2 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- Peddapalli (Length: - 4.80 kms)

Digitally signed by
Suman Kumar Maharana
Date: 10-03-2026
11:35:02

Chief Engineer

To,

1.	M/s. NTPC , Ramagundam	Ramagundam, District- Peddapalli, Telangana - 505215

CEA Case No.: TNG - 154 - 1

Provisional Approval for the Route of Extra High Tension (EHT)/ High Tension (HT) Power Line / Telecommunication Line

Provisional Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed having a validity of 60 days from the date of issuance for **33KV Feeder No. 301, UG Cable from Block No. 1 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District-peddapalli (Length: - 3.00 kms)** particulars of which are given in Annexure I.

The approval is for the route only and is subject to the following conditions.

1. The approval is based on the Power system/ Telecom system conditions' details as reported by the Power supply authority/ Telecom authority at present. Any changes either to Transmission line or the Power system or the paralleling telecommunication lines which are likely to alter the low frequency induction from the estimated at present should be reported to PTCC for its prior approval.
2. The Power and Telecommunication authorities shall be required to adopt such measures as may be recommended by PTCC for counteracting any interference that might arise when the EHT line is in normal operation.
3. Each crossing should satisfy the conditions as laid down in Para 6 -10 of PTCC Code of Practice for crossings.
4. The angle of crossing shall be 90 degrees but in no case less than 60 degrees.
5. The power line shall be equipped with protective switchgear such that the duration of earth current shall be as short as possible but never exceeding 0.5 seconds.
6. The power line shall be energized within a mutually acceptable time limit after obtaining a Certificate from the concerned Telecom and/or Railway authority regarding completion of provision of all protective measures as recommended by PTCC and also under specific clearance from the Telecom and/or Railway authority maintaining the Telecom system.
7. The energization of Extra High Tension power lines would not be held up for want of installation of GD tubes on telecom lines when the induced voltages are in the range of 430 to 650 V.
8. The telecom line shall be commissioned within a mutually acceptable time after completing provision of all protective measures as recommended by PTCC and also after obtaining specific clearance from the Power authority, if certain measures as recommended by PTCC are to be carried out on power system.
9. The later entrant in the field shall bear the entire cost of providing GD tubes and their fitting as recommended by PTCC, including 15% spares and/or any other protective measures as recommended by PTCC.
10. The route approval shall be subject to special conditions as laid down under Annexure II.

Annexure I

1		
(a)	Name of the Power Supply authority seeking approval	M/s. NTPC , Ramagundam
(b)	Reference number & date:	176 MW SPV Ramagundam/PTCC/01/2162 dated 05.02.2026
(c)	Name of the Power line	33KV Feeder No. 301, UG Cable from Block No. 1 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 3.00 kms)
(d)	Length of Power line:	3.00 kms
(e)	Operating Voltage	33 kV
(f)	Number of circuits	S/C
2		
(a)	Names of parallel telecom lines:	As per Annexure-II
(b)	Length of parallelism:	As per Annexure-II
3	Average value of earth resistivity in the region:	25000 ohm-cms
4	Whether LF test necessary:	No
5	Special conditions subject to which this certificate will be effective	As per Annexure-II

Annexure II

Name of the Power Line: 33KV Feeder No. 301, UG Cable from Block No. 1 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 3.00 kms)

1. EPR zone for the proposed substation is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
Proposed 33kV Solar Block	21.26	25	0.3	350	224	2	N.A

Telecom authorities to ensure the protection of telecom equipment and personnel within the EPR zone of the proposed substation at the cost of the later entrant.

CEA Case No.: TNG - 154 - 2

Provisional Approval for the Route of Extra High Tension (EHT)/ High Tension (HT) Power Line / Telecommunication Line

Provisional Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed having a validity of 60 days from the date of issuance for **33KV Feeder No. 302, UG Cable from Block No. 2 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District-peddapalli (Length: - 3.50 kms)** particulars of which are given in Annexure III.

The approval is for the route only and is subject to the following conditions.

1. The approval is based on the Power system/ Telecom system conditions' details as reported by the Power supply authority/ Telecom authority at present. Any changes either to Transmission line or the Power system or the paralleling telecommunication lines which are likely to alter the low frequency induction from the estimated at present should be reported to PTCC for its prior approval.
2. The Power and Telecommunication authorities shall be required to adopt such measures as may be recommended by PTCC for counteracting any interference that might arise when the EHT line is in normal operation.
3. Each crossing should satisfy the conditions as laid down in Para 6 -10 of PTCC Code of Practice for crossings.
4. The angle of crossing shall be 90 degrees but in no case less than 60 degrees.
5. The power line shall be equipped with protective switchgear such that the duration of earth current shall be as short as possible but never exceeding 0.5 seconds.
6. The power line shall be energized within a mutually acceptable time limit after obtaining a Certificate from the concerned Telecom and/or Railway authority regarding completion of provision of all protective measures as recommended by PTCC and also under specific clearance from the Telecom and/or Railway authority maintaining the Telecom system.
7. The energization of Extra High Tension power lines would not be held up for want of installation of GD tubes on telecom lines when the induced voltages are in the range of 430 to 650 V.
8. The telecom line shall be commissioned within a mutually acceptable time after completing provision of all protective measures as recommended by PTCC and also after obtaining specific clearance from the Power authority, if certain measures as recommended by PTCC are to be carried out on power system.
9. The later entrant in the field shall bear the entire cost of providing GD tubes and their fitting as recommended by PTCC, including 15% spares and/or any other protective measures as recommended by PTCC.
10. The route approval shall be subject to special conditions as laid down under Annexure IV.

Annexure III

1		
(a)	Name of the Power Supply authority seeking approval	M/s. NTPC , Ramagundam
(b)	Reference number & date:	176 MW SPV Ramagundam/PTCC/01/2162 dated 05.02.2026
(c)	Name of the Power line	33KV Feeder No. 302, UG Cable from Block No. 2 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 3.50 kms)
(d)	Length of Power line:	3.50 kms
(e)	Operating Voltage	33 kV
(f)	Number of circuits	S/C
2		
(a)	Names of parallel telecom lines:	As per Annexure-IV
(b)	Length of parallelism:	As per Annexure-IV
3	Average value of earth resistivity in the region:	25000 ohm-cms
4	Whether LF test necessary:	No
5	Special conditions subject to which this certificate will be effective	As per Annexure-IV

Annexure IV

Name of the Power Line: 33KV Feeder No. 302, UG Cable from Block No. 2 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 3.50 kms)

1. EPR zone for the proposed substation is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
Proposed 33kV Solar Block	21.26	25	0.3	350	224	2	N.A

Telecom authorities to ensure the protection of telecom equipment and personnel within the EPR zone of the proposed substation at the cost of the later entrant.

CEA Case No.: TNG - 154 - 3

Provisional Approval for the Route of Extra High Tension (EHT)/ High Tension (HT) Power Line / Telecommunication Line

Provisional Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed having a validity of 60 days from the date of issuance for **33KV Feeder No. 303, UG Cable from Block No. 3 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District-peddapalli (Length: - 4.10 kms)** particulars of which are given in Annexure V.

The approval is for the route only and is subject to the following conditions.

1. The approval is based on the Power system/ Telecom system conditions' details as reported by the Power supply authority/ Telecom authority at present. Any changes either to Transmission line or the Power system or the paralleling telecommunication lines which are likely to alter the low frequency induction from the estimated at present should be reported to PTCC for its prior approval.
2. The Power and Telecommunication authorities shall be required to adopt such measures as may be recommended by PTCC for counteracting any interference that might arise when the EHT line is in normal operation.
3. Each crossing should satisfy the conditions as laid down in Para 6 -10 of PTCC Code of Practice for crossings.
4. The angle of crossing shall be 90 degrees but in no case less than 60 degrees.
5. The power line shall be equipped with protective switchgear such that the duration of earth current shall be as short as possible but never exceeding 0.5 seconds.
6. The power line shall be energized within a mutually acceptable time limit after obtaining a Certificate from the concerned Telecom and/or Railway authority regarding completion of provision of all protective measures as recommended by PTCC and also under specific clearance from the Telecom and/or Railway authority maintaining the Telecom system.
7. The energization of Extra High Tension power lines would not be held up for want of installation of GD tubes on telecom lines when the induced voltages are in the range of 430 to 650 V.
8. The telecom line shall be commissioned within a mutually acceptable time after completing provision of all protective measures as recommended by PTCC and also after obtaining specific clearance from the Power authority, if certain measures as recommended by PTCC are to be carried out on power system.
9. The later entrant in the field shall bear the entire cost of providing GD tubes and their fitting as recommended by PTCC, including 15% spares and/or any other protective measures as recommended by PTCC.
10. The route approval shall be subject to special conditions as laid down under Annexure VI.

Annexure V

1		
(a)	Name of the Power Supply authority seeking approval	M/s. NTPC , Ramagundam
(b)	Reference number & date:	176 MW SPV Ramagundam/PTCC/01/2162 dated 05.02.2026
(c)	Name of the Power line	33KV Feeder No. 303, UG Cable from Block No. 3 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 4.10 kms)
(d)	Length of Power line:	4.10 kms
(e)	Operating Voltage	33 kV
(f)	Number of circuits	S/C
2		
(a)	Names of parallel telecom lines:	As per Annexure-VI
(b)	Length of parallelism:	As per Annexure-VI
3	Average value of earth resistivity in the region:	25000 ohm-cms
4	Whether LF test necessary:	No
5	Special conditions subject to which this certificate will be effective	As per Annexure-VI

Annexure VI

Name of the Power Line: 33KV Feeder No. 303, UG Cable from Block No. 3 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 4.10 kms)

1. EPR zone for the proposed substation is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
Proposed 33kV Solar Block	21.26	25	0.3	350	224	2	N.A

Telecom authorities to ensure the protection of telecom equipment and personnel within the EPR zone of the proposed substation at the cost of the later entrant.

CEA Case No.: TNG - 154 - 4

Provisional Approval for the Route of Extra High Tension (EHT)/ High Tension (HT) Power Line / Telecommunication Line

Provisional Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed having a validity of 60 days from the date of issuance for **33KV Feeder No. 304, UG Cable from Block No. 4 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District-peddapalli (Length: - 4.50 kms)** particulars of which are given in Annexure VII.

The approval is for the route only and is subject to the following conditions.

1. The approval is based on the Power system/ Telecom system conditions' details as reported by the Power supply authority/ Telecom authority at present. Any changes either to Transmission line or the Power system or the paralleling telecommunication lines which are likely to alter the low frequency induction from the estimated at present should be reported to PTCC for its prior approval.
2. The Power and Telecommunication authorities shall be required to adopt such measures as may be recommended by PTCC for counteracting any interference that might arise when the EHT line is in normal operation.
3. Each crossing should satisfy the conditions as laid down in Para 6 -10 of PTCC Code of Practice for crossings.
4. The angle of crossing shall be 90 degrees but in no case less than 60 degrees.
5. The power line shall be equipped with protective switchgear such that the duration of earth current shall be as short as possible but never exceeding 0.5 seconds.
6. The power line shall be energized within a mutually acceptable time limit after obtaining a Certificate from the concerned Telecom and/or Railway authority regarding completion of provision of all protective measures as recommended by PTCC and also under specific clearance from the Telecom and/or Railway authority maintaining the Telecom system.
7. The energization of Extra High Tension power lines would not be held up for want of installation of GD tubes on telecom lines when the induced voltages are in the range of 430 to 650 V.
8. The telecom line shall be commissioned within a mutually acceptable time after completing provision of all protective measures as recommended by PTCC and also after obtaining specific clearance from the Power authority, if certain measures as recommended by PTCC are to be carried out on power system.
9. The later entrant in the field shall bear the entire cost of providing GD tubes and their fitting as recommended by PTCC, including 15% spares and/or any other protective measures as recommended by PTCC.
10. The route approval shall be subject to special conditions as laid down under Annexure VIII.

Annexure VII

1		
(a)	Name of the Power Supply authority seeking approval	M/s. NTPC , Ramagundam
(b)	Reference number & date:	176 MW SPV Ramagundam/PTCC/01/2162 dated 05.02.2026
(c)	Name of the Power line	33KV Feeder No. 304, UG Cable from Block No. 4 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 4.50 kms)
(d)	Length of Power line:	4.50 kms
(e)	Operating Voltage	33 kV
(f)	Number of circuits	S/C
2		
(a)	Names of parallel telecom lines:	As per Annexure-VIII
(b)	Length of parallelism:	As per Annexure-VIII
3	Average value of earth resistivity in the region:	25000 ohm-cms
4	Whether LF test necessary:	No
5	Special conditions subject to which this certificate will be effective	As per Annexure-VIII

Annexure VIII

Name of the Power Line: 33KV Feeder No. 304, UG Cable from Block No. 4 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 4.50 kms)

1. EPR zone for the proposed substation is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
Proposed 33kV Solar Block	21.26	25	0.3	350	224	2	N.A

Telecom authorities to ensure the protection of telecom equipment and personnel within the EPR zone of the proposed substation at the cost of the later entrant.

CEA Case No.: TNG - 154 - 5

Provisional Approval for the Route of Extra High Tension (EHT)/ High Tension (HT) Power Line / Telecommunication Line

Provisional Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed having a validity of 60 days from the date of issuance for **33KV Feeder No. 305, UG Cable from Block No. 5 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District-peddapalli (Length: - 5.00 kms)** particulars of which are given in Annexure IX.

The approval is for the route only and is subject to the following conditions.

1. The approval is based on the Power system/ Telecom system conditions' details as reported by the Power supply authority/ Telecom authority at present. Any changes either to Transmission line or the Power system or the paralleling telecommunication lines which are likely to alter the low frequency induction from the estimated at present should be reported to PTCC for its prior approval.
2. The Power and Telecommunication authorities shall be required to adopt such measures as may be recommended by PTCC for counteracting any interference that might arise when the EHT line is in normal operation.
3. Each crossing should satisfy the conditions as laid down in Para 6 -10 of PTCC Code of Practice for crossings.
4. The angle of crossing shall be 90 degrees but in no case less than 60 degrees.
5. The power line shall be equipped with protective switchgear such that the duration of earth current shall be as short as possible but never exceeding 0.5 seconds.
6. The power line shall be energized within a mutually acceptable time limit after obtaining a Certificate from the concerned Telecom and/or Railway authority regarding completion of provision of all protective measures as recommended by PTCC and also under specific clearance from the Telecom and/or Railway authority maintaining the Telecom system.
7. The energization of Extra High Tension power lines would not be held up for want of installation of GD tubes on telecom lines when the induced voltages are in the range of 430 to 650 V.
8. The telecom line shall be commissioned within a mutually acceptable time after completing provision of all protective measures as recommended by PTCC and also after obtaining specific clearance from the Power authority, if certain measures as recommended by PTCC are to be carried out on power system.
9. The later entrant in the field shall bear the entire cost of providing GD tubes and their fitting as recommended by PTCC, including 15% spares and/or any other protective measures as recommended by PTCC.
10. The route approval shall be subject to special conditions as laid down under Annexure X.

Annexure IX

1		
(a)	Name of the Power Supply authority seeking approval	M/s. NTPC , Ramagundam
(b)	Reference number & date:	176 MW SPV Ramagundam/PTCC/01/2162 dated 05.02.2026
(c)	Name of the Power line	33KV Feeder No. 305, UG Cable from Block No. 5 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 5.00 kms)
(d)	Length of Power line:	5.00 kms
(e)	Operating Voltage	33 kV
(f)	Number of circuits	S/C
2		
(a)	Names of parallel telecom lines:	As per Annexure-X
(b)	Length of parallelism:	As per Annexure-X
3	Average value of earth resistivity in the region:	25000 ohm-cms
4	Whether LF test necessary:	No
5	Special conditions subject to which this certificate will be effective	As per Annexure-X

Annexure X

Name of the Power Line: 33KV Feeder No. 305, UG Cable from Block No. 5 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 5.00 kms)

1. EPR zone for the proposed substation is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
Proposed 33kV Solar Block	21.26	25	0.3	350	224	2	N.A

Telecom authorities to ensure the protection of telecom equipment and personnel within the EPR zone of the proposed substation at the cost of the later entrant.

CEA Case No.: TNG - 154 - 6

Provisional Approval for the Route of Extra High Tension (EHT)/ High Tension (HT) Power Line / Telecommunication Line

Provisional Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed having a validity of 60 days from the date of issuance for **33KV Feeder No. 306, UG Cable from Block No. 6 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District-peddapalli (Length: - 5.50 kms)** particulars of which are given in Annexure XI.

The approval is for the route only and is subject to the following conditions.

1. The approval is based on the Power system/ Telecom system conditions' details as reported by the Power supply authority/ Telecom authority at present. Any changes either to Transmission line or the Power system or the paralleling telecommunication lines which are likely to alter the low frequency induction from the estimated at present should be reported to PTCC for its prior approval.
2. The Power and Telecommunication authorities shall be required to adopt such measures as may be recommended by PTCC for counteracting any interference that might arise when the EHT line is in normal operation.
3. Each crossing should satisfy the conditions as laid down in Para 6 -10 of PTCC Code of Practice for crossings.
4. The angle of crossing shall be 90 degrees but in no case less than 60 degrees.
5. The power line shall be equipped with protective switchgear such that the duration of earth current shall be as short as possible but never exceeding 0.5 seconds.
6. The power line shall be energized within a mutually acceptable time limit after obtaining a Certificate from the concerned Telecom and/or Railway authority regarding completion of provision of all protective measures as recommended by PTCC and also under specific clearance from the Telecom and/or Railway authority maintaining the Telecom system.
7. The energization of Extra High Tension power lines would not be held up for want of installation of GD tubes on telecom lines when the induced voltages are in the range of 430 to 650 V.
8. The telecom line shall be commissioned within a mutually acceptable time after completing provision of all protective measures as recommended by PTCC and also after obtaining specific clearance from the Power authority, if certain measures as recommended by PTCC are to be carried out on power system.
9. The later entrant in the field shall bear the entire cost of providing GD tubes and their fitting as recommended by PTCC, including 15% spares and/or any other protective measures as recommended by PTCC.
10. The route approval shall be subject to special conditions as laid down under Annexure XII.

Annexure XI

1		
(a)	Name of the Power Supply authority seeking approval	M/s. NTPC , Ramagundam
(b)	Reference number & date:	176 MW SPV Ramagundam/PTCC/01/2162 dated 05.02.2026
(c)	Name of the Power line	33KV Feeder No. 306, UG Cable from Block No. 6 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 5.50 kms)
(d)	Length of Power line:	5.50 kms
(e)	Operating Voltage	33 kV
(f)	Number of circuits	S/C
2		
(a)	Names of parallel telecom lines:	As per Annexure-XII
(b)	Length of parallelism:	As per Annexure-XII
3	Average value of earth resistivity in the region:	25000 ohm-cms
4	Whether LF test necessary:	No
5	Special conditions subject to which this certificate will be effective	As per Annexure-XII

Annexure XII

Name of the Power Line: 33KV Feeder No. 306, UG Cable from Block No. 6 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 5.50 kms)

1. EPR zone for the proposed substation is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
Proposed 33kV Solar Block	21.26	25	0.3	350	224	2	N.A

Telecom authorities to ensure the protection of telecom equipment and personnel within the EPR zone of the proposed substation at the cost of the later entrant.

CEA Case No.: TNG - 154 - 7

Provisional Approval for the Route of Extra High Tension (EHT)/ High Tension (HT) Power Line / Telecommunication Line

Provisional Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed having a validity of 60 days from the date of issuance for **33KV Feeder No. 307, UG Cable from Block No. 7 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District-peddapalli (Length: - 5.10 kms)** particulars of which are given in Annexure XIII.

The approval is for the route only and is subject to the following conditions.

1. The approval is based on the Power system/ Telecom system conditions' details as reported by the Power supply authority/ Telecom authority at present. Any changes either to Transmission line or the Power system or the paralleling telecommunication lines which are likely to alter the low frequency induction from the estimated at present should be reported to PTCC for its prior approval.
2. The Power and Telecommunication authorities shall be required to adopt such measures as may be recommended by PTCC for counteracting any interference that might arise when the EHT line is in normal operation.
3. Each crossing should satisfy the conditions as laid down in Para 6 -10 of PTCC Code of Practice for crossings.
4. The angle of crossing shall be 90 degrees but in no case less than 60 degrees.
5. The power line shall be equipped with protective switchgear such that the duration of earth current shall be as short as possible but never exceeding 0.5 seconds.
6. The power line shall be energized within a mutually acceptable time limit after obtaining a Certificate from the concerned Telecom and/or Railway authority regarding completion of provision of all protective measures as recommended by PTCC and also under specific clearance from the Telecom and/or Railway authority maintaining the Telecom system.
7. The energization of Extra High Tension power lines would not be held up for want of installation of GD tubes on telecom lines when the induced voltages are in the range of 430 to 650 V.
8. The telecom line shall be commissioned within a mutually acceptable time after completing provision of all protective measures as recommended by PTCC and also after obtaining specific clearance from the Power authority, if certain measures as recommended by PTCC are to be carried out on power system.
9. The later entrant in the field shall bear the entire cost of providing GD tubes and their fitting as recommended by PTCC, including 15% spares and/or any other protective measures as recommended by PTCC.
10. The route approval shall be subject to special conditions as laid down under Annexure XIV.

Annexure XIII

1		
(a)	Name of the Power Supply authority seeking approval	M/s. NTPC , Ramagundam
(b)	Reference number & date:	176 MW SPV Ramagundam/PTCC/01/2162 dated 05.02.2026
(c)	Name of the Power line	33KV Feeder No. 307, UG Cable from Block No. 7 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 5.10 kms)
(d)	Length of Power line:	5.10 kms
(e)	Operating Voltage	33 kV
(f)	Number of circuits	S/C
2		
(a)	Names of parallel telecom lines:	As per Annexure-XIV
(b)	Length of parallelism:	As per Annexure-XIV
3	Average value of earth resistivity in the region:	25000 ohm-cms
4	Whether LF test necessary:	No
5	Special conditions subject to which this certificate will be effective	As per Annexure-XIV

Annexure XIV

Name of the Power Line: 33KV Feeder No. 307, UG Cable from Block No. 7 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 5.10 kms)

1. EPR zone for the proposed substation is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
Proposed 33kV Solar Block	21.26	25	0.3	350	224	2	N.A

Telecom authorities to ensure the protection of telecom equipment and personnel within the EPR zone of the proposed substation at the cost of the later entrant.

CEA Case No.: TNG - 154 - 8

Provisional Approval for the Route of Extra High Tension (EHT)/ High Tension (HT) Power Line / Telecommunication Line

Provisional Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed having a validity of 60 days from the date of issuance for **33KV Feeder No. 308, UG Cable from Block No. 8 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District-peddapalli (Length: - 5.60 kms)** particulars of which are given in Annexure XV.

The approval is for the route only and is subject to the following conditions.

1. The approval is based on the Power system/ Telecom system conditions' details as reported by the Power supply authority/ Telecom authority at present. Any changes either to Transmission line or the Power system or the paralleling telecommunication lines which are likely to alter the low frequency induction from the estimated at present should be reported to PTCC for its prior approval.
2. The Power and Telecommunication authorities shall be required to adopt such measures as may be recommended by PTCC for counteracting any interference that might arise when the EHT line is in normal operation.
3. Each crossing should satisfy the conditions as laid down in Para 6 -10 of PTCC Code of Practice for crossings.
4. The angle of crossing shall be 90 degrees but in no case less than 60 degrees.
5. The power line shall be equipped with protective switchgear such that the duration of earth current shall be as short as possible but never exceeding 0.5 seconds.
6. The power line shall be energized within a mutually acceptable time limit after obtaining a Certificate from the concerned Telecom and/or Railway authority regarding completion of provision of all protective measures as recommended by PTCC and also under specific clearance from the Telecom and/or Railway authority maintaining the Telecom system.
7. The energization of Extra High Tension power lines would not be held up for want of installation of GD tubes on telecom lines when the induced voltages are in the range of 430 to 650 V.
8. The telecom line shall be commissioned within a mutually acceptable time after completing provision of all protective measures as recommended by PTCC and also after obtaining specific clearance from the Power authority, if certain measures as recommended by PTCC are to be carried out on power system.
9. The later entrant in the field shall bear the entire cost of providing GD tubes and their fitting as recommended by PTCC, including 15% spares and/or any other protective measures as recommended by PTCC.
10. The route approval shall be subject to special conditions as laid down under Annexure XVI.

Annexure XV

1		
(a)	Name of the Power Supply authority seeking approval	M/s. NTPC , Ramagundam
(b)	Reference number & date:	176 MW SPV Ramagundam/PTCC/01/2162 dated 05.02.2026
(c)	Name of the Power line	33KV Feeder No. 308, UG Cable from Block No. 8 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 5.60 kms)
(d)	Length of Power line:	5.60 kms
(e)	Operating Voltage	33 kV
(f)	Number of circuits	S/C
2		
(a)	Names of parallel telecom lines:	As per Annexure-XVI
(b)	Length of parallelism:	As per Annexure-XVI
3	Average value of earth resistivity in the region:	25000 ohm-cms
4	Whether LF test necessary:	No
5	Special conditions subject to which this certificate will be effective	As per Annexure-XVI

Annexure XVI

Name of the Power Line: 33KV Feeder No. 308, UG Cable from Block No. 8 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 5.60 kms)

1. EPR zone for the proposed substation is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
Proposed 33kV Solar Block	21.26	25	0.3	350	224	2	N.A

Telecom authorities to ensure the protection of telecom equipment and personnel within the EPR zone of the proposed substation at the cost of the later entrant.

CEA Case No.: TNG - 154 - 9

Provisional Approval for the Route of Extra High Tension (EHT)/ High Tension (HT) Power Line / Telecommunication Line

Provisional Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed having a validity of 60 days from the date of issuance for **33KV Feeder No. 309, UG Cable from Block No. 9 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District-peddapalli (Length: - 6.70 kms)** particulars of which are given in Annexure XVII.

The approval is for the route only and is subject to the following conditions.

1. The approval is based on the Power system/ Telecom system conditions' details as reported by the Power supply authority/ Telecom authority at present. Any changes either to Transmission line or the Power system or the paralleling telecommunication lines which are likely to alter the low frequency induction from the estimated at present should be reported to PTCC for its prior approval.
2. The Power and Telecommunication authorities shall be required to adopt such measures as may be recommended by PTCC for counteracting any interference that might arise when the EHT line is in normal operation.
3. Each crossing should satisfy the conditions as laid down in Para 6 -10 of PTCC Code of Practice for crossings.
4. The angle of crossing shall be 90 degrees but in no case less than 60 degrees.
5. The power line shall be equipped with protective switchgear such that the duration of earth current shall be as short as possible but never exceeding 0.5 seconds.
6. The power line shall be energized within a mutually acceptable time limit after obtaining a Certificate from the concerned Telecom and/or Railway authority regarding completion of provision of all protective measures as recommended by PTCC and also under specific clearance from the Telecom and/or Railway authority maintaining the Telecom system.
7. The energization of Extra High Tension power lines would not be held up for want of installation of GD tubes on telecom lines when the induced voltages are in the range of 430 to 650 V.
8. The telecom line shall be commissioned within a mutually acceptable time after completing provision of all protective measures as recommended by PTCC and also after obtaining specific clearance from the Power authority, if certain measures as recommended by PTCC are to be carried out on power system.
9. The later entrant in the field shall bear the entire cost of providing GD tubes and their fitting as recommended by PTCC, including 15% spares and/or any other protective measures as recommended by PTCC.
10. The route approval shall be subject to special conditions as laid down under Annexure XVIII.

Annexure XVII

1		
(a)	Name of the Power Supply authority seeking approval	M/s. NTPC , Ramagundam
(b)	Reference number & date:	176 MW SPV Ramagundam/PTCC/01/2162 dated 05.02.2026
(c)	Name of the Power line	33KV Feeder No. 309, UG Cable from Block No. 9 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 6.70 kms)
(d)	Length of Power line:	6.70 kms
(e)	Operating Voltage	33 kV
(f)	Number of circuits	S/C
2		
(a)	Names of parallel telecom lines:	As per Annexure-XVIII
(b)	Length of parallelism:	As per Annexure-XVIII
3	Average value of earth resistivity in the region:	25000 ohm-cms
4	Whether LF test necessary:	No
5	Special conditions subject to which this certificate will be effective	As per Annexure-XVIII

Annexure XVIII

Name of the Power Line: 33KV Feeder No. 309, UG Cable from Block No. 9 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 6.70 kms)

1. EPR zone for the proposed substation is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
Proposed 33kV Solar Block	21.26	25	0.3	350	224	2	N.A

Telecom authorities to ensure the protection of telecom equipment and personnel within the EPR zone of the proposed substation at the cost of the later entrant.

CEA Case No.: TNG - 154 - 10

Provisional Approval for the Route of Extra High Tension (EHT)/ High Tension (HT) Power Line / Telecommunication Line

Provisional Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed having a validity of 60 days from the date of issuance for **33KV Feeder No. 3010, UG Cable from Block No. 10 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District-peddapalli (Length: - 6.50 kms)** particulars of which are given in Annexure XIX.

The approval is for the route only and is subject to the following conditions.

1. The approval is based on the Power system/ Telecom system conditions' details as reported by the Power supply authority/ Telecom authority at present. Any changes either to Transmission line or the Power system or the paralleling telecommunication lines which are likely to alter the low frequency induction from the estimated at present should be reported to PTCC for its prior approval.
2. The Power and Telecommunication authorities shall be required to adopt such measures as may be recommended by PTCC for counteracting any interference that might arise when the EHT line is in normal operation.
3. Each crossing should satisfy the conditions as laid down in Para 6 -10 of PTCC Code of Practice for crossings.
4. The angle of crossing shall be 90 degrees but in no case less than 60 degrees.
5. The power line shall be equipped with protective switchgear such that the duration of earth current shall be as short as possible but never exceeding 0.5 seconds.
6. The power line shall be energized within a mutually acceptable time limit after obtaining a Certificate from the concerned Telecom and/or Railway authority regarding completion of provision of all protective measures as recommended by PTCC and also under specific clearance from the Telecom and/or Railway authority maintaining the Telecom system.
7. The energization of Extra High Tension power lines would not be held up for want of installation of GD tubes on telecom lines when the induced voltages are in the range of 430 to 650 V.
8. The telecom line shall be commissioned within a mutually acceptable time after completing provision of all protective measures as recommended by PTCC and also after obtaining specific clearance from the Power authority, if certain measures as recommended by PTCC are to be carried out on power system.
9. The later entrant in the field shall bear the entire cost of providing GD tubes and their fitting as recommended by PTCC, including 15% spares and/or any other protective measures as recommended by PTCC.
10. The route approval shall be subject to special conditions as laid down under Annexure XX.

Annexure XIX

1		
(a)	Name of the Power Supply authority seeking approval	M/s. NTPC , Ramagundam
(b)	Reference number & date:	176 MW SPV Ramagundam/PTCC/01/2162 dated 05.02.2026
(c)	Name of the Power line	33KV Feeder No. 3010, UG Cable from Block No. 10 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 6.50 kms)
(d)	Length of Power line:	6.50 kms
(e)	Operating Voltage	33 kV
(f)	Number of circuits	S/C
2		
(a)	Names of parallel telecom lines:	As per Annexure-XX
(b)	Length of parallelism:	As per Annexure-XX
3	Average value of earth resistivity in the region:	25000 ohm-cms
4	Whether LF test necessary:	No
5	Special conditions subject to which this certificate will be effective	As per Annexure-XX

Annexure XX

Name of the Power Line: 33KV Feeder No. 3010, UG Cable from Block No. 10 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 6.50 kms)

1. EPR zone for the proposed substation is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
Proposed 33kV Solar Block	21.26	25	0.3	350	224	2	N.A

Telecom authorities to ensure the protection of telecom equipment and personnel within the EPR zone of the proposed substation at the cost of the later entrant.

CEA Case No.: TNG - 154 - 11

Provisional Approval for the Route of Extra High Tension (EHT)/ High Tension (HT) Power Line / Telecommunication Line

Provisional Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed having a validity of 60 days from the date of issuance for **33KV Feeder No. 3011, UG Cable from Block No. 11 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District-peddapalli (Length: - 7.00 kms)** particulars of which are given in Annexure XXI.

The approval is for the route only and is subject to the following conditions.

1. The approval is based on the Power system/ Telecom system conditions' details as reported by the Power supply authority/ Telecom authority at present. Any changes either to Transmission line or the Power system or the paralleling telecommunication lines which are likely to alter the low frequency induction from the estimated at present should be reported to PTCC for its prior approval.
2. The Power and Telecommunication authorities shall be required to adopt such measures as may be recommended by PTCC for counteracting any interference that might arise when the EHT line is in normal operation.
3. Each crossing should satisfy the conditions as laid down in Para 6 -10 of PTCC Code of Practice for crossings.
4. The angle of crossing shall be 90 degrees but in no case less than 60 degrees.
5. The power line shall be equipped with protective switchgear such that the duration of earth current shall be as short as possible but never exceeding 0.5 seconds.
6. The power line shall be energized within a mutually acceptable time limit after obtaining a Certificate from the concerned Telecom and/or Railway authority regarding completion of provision of all protective measures as recommended by PTCC and also under specific clearance from the Telecom and/or Railway authority maintaining the Telecom system.
7. The energization of Extra High Tension power lines would not be held up for want of installation of GD tubes on telecom lines when the induced voltages are in the range of 430 to 650 V.
8. The telecom line shall be commissioned within a mutually acceptable time after completing provision of all protective measures as recommended by PTCC and also after obtaining specific clearance from the Power authority, if certain measures as recommended by PTCC are to be carried out on power system.
9. The later entrant in the field shall bear the entire cost of providing GD tubes and their fitting as recommended by PTCC, including 15% spares and/or any other protective measures as recommended by PTCC.
10. The route approval shall be subject to special conditions as laid down under Annexure XXII.

Annexure XXI

1		
(a)	Name of the Power Supply authority seeking approval	M/s. NTPC , Ramagundam
(b)	Reference number & date:	176 MW SPV Ramagundam/PTCC/01/2162 dated 05.02.2026
(c)	Name of the Power line	33KV Feeder No. 3011, UG Cable from Block No. 11 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 7.00 kms)
(d)	Length of Power line:	7.00 kms
(e)	Operating Voltage	33 kV
(f)	Number of circuits	S/C
2		
(a)	Names of parallel telecom lines:	As per Annexure-XXII
(b)	Length of parallelism:	As per Annexure-XXII
3	Average value of earth resistivity in the region:	25000 ohm-cms
4	Whether LF test necessary:	No
5	Special conditions subject to which this certificate will be effective	As per Annexure-XXII

Annexure XXII

Name of the Power Line: 33KV Feeder No. 3011, UG Cable from Block No. 11 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 7.00 kms)

1. EPR zone for the proposed substation is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
Proposed 33kV Solar Block	21.26	25	0.3	350	224	2	N.A

Telecom authorities to ensure the protection of telecom equipment and personnel within the EPR zone of the proposed substation at the cost of the later entrant.

CEA Case No.: TNG - 154 - 12

Provisional Approval for the Route of Extra High Tension (EHT)/ High Tension (HT) Power Line / Telecommunication Line

Provisional Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed having a validity of 60 days from the date of issuance for **33KV Feeder No. 3012, UG Cable from Block No. 12 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District-peddapalli (Length: - 7.50 kms)** particulars of which are given in Annexure XXIII.

The approval is for the route only and is subject to the following conditions.

1. The approval is based on the Power system/ Telecom system conditions' details as reported by the Power supply authority/ Telecom authority at present. Any changes either to Transmission line or the Power system or the paralleling telecommunication lines which are likely to alter the low frequency induction from the estimated at present should be reported to PTCC for its prior approval.
2. The Power and Telecommunication authorities shall be required to adopt such measures as may be recommended by PTCC for counteracting any interference that might arise when the EHT line is in normal operation.
3. Each crossing should satisfy the conditions as laid down in Para 6 -10 of PTCC Code of Practice for crossings.
4. The angle of crossing shall be 90 degrees but in no case less than 60 degrees.
5. The power line shall be equipped with protective switchgear such that the duration of earth current shall be as short as possible but never exceeding 0.5 seconds.
6. The power line shall be energized within a mutually acceptable time limit after obtaining a Certificate from the concerned Telecom and/or Railway authority regarding completion of provision of all protective measures as recommended by PTCC and also under specific clearance from the Telecom and/or Railway authority maintaining the Telecom system.
7. The energization of Extra High Tension power lines would not be held up for want of installation of GD tubes on telecom lines when the induced voltages are in the range of 430 to 650 V.
8. The telecom line shall be commissioned within a mutually acceptable time after completing provision of all protective measures as recommended by PTCC and also after obtaining specific clearance from the Power authority, if certain measures as recommended by PTCC are to be carried out on power system.
9. The later entrant in the field shall bear the entire cost of providing GD tubes and their fitting as recommended by PTCC, including 15% spares and/or any other protective measures as recommended by PTCC.
10. The route approval shall be subject to special conditions as laid down under Annexure XXIV.

Annexure XXIII

1		
(a)	Name of the Power Supply authority seeking approval	M/s. NTPC , Ramagundam
(b)	Reference number & date:	176 MW SPV Ramagundam/PTCC/01/2162 dated 05.02.2026
(c)	Name of the Power line	33KV Feeder No. 3012, UG Cable from Block No. 12 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 7.50 kms)
(d)	Length of Power line:	7.50 kms
(e)	Operating Voltage	33 kV
(f)	Number of circuits	S/C
2		
(a)	Names of parallel telecom lines:	As per Annexure-XXIV
(b)	Length of parallelism:	As per Annexure-XXIV
3	Average value of earth resistivity in the region:	25000 ohm-cms
4	Whether LF test necessary:	No
5	Special conditions subject to which this certificate will be effective	As per Annexure-XXIV

Annexure XXIV

Name of the Power Line: 33KV Feeder No. 3012, UG Cable from Block No. 12 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- peddapalli (Length: - 7.50 kms)

1. EPR zone for the proposed substation is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
Proposed 33kV Solar Block	21.26	25	0.3	350	224	2	N.A

Telecom authorities to ensure the protection of telecom equipment and personnel within the EPR zone of the proposed substation at the cost of the later entrant.

CEA Case No.: TNG - 154 - 13

Provisional Approval for the Route of Extra High Tension (EHT)/ High Tension (HT) Power Line / Telecommunication Line

Provisional Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed having a validity of 60 days from the date of issuance for **33KV Feeder No. 3013, UG Cable from floating solar Block No. 1 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- Peddapalli (Length: - 4.50 kms)** particulars of which are given in Annexure XXV.

The approval is for the route only and is subject to the following conditions.

1. The approval is based on the Power system/ Telecom system conditions' details as reported by the Power supply authority/ Telecom authority at present. Any changes either to Transmission line or the Power system or the paralleling telecommunication lines which are likely to alter the low frequency induction from the estimated at present should be reported to PTCC for its prior approval.
2. The Power and Telecommunication authorities shall be required to adopt such measures as may be recommended by PTCC for counteracting any interference that might arise when the EHT line is in normal operation.
3. Each crossing should satisfy the conditions as laid down in Para 6 -10 of PTCC Code of Practice for crossings.
4. The angle of crossing shall be 90 degrees but in no case less than 60 degrees.
5. The power line shall be equipped with protective switchgear such that the duration of earth current shall be as short as possible but never exceeding 0.5 seconds.
6. The power line shall be energized within a mutually acceptable time limit after obtaining a Certificate from the concerned Telecom and/or Railway authority regarding completion of provision of all protective measures as recommended by PTCC and also under specific clearance from the Telecom and/or Railway authority maintaining the Telecom system.
7. The energization of Extra High Tension power lines would not be held up for want of installation of GD tubes on telecom lines when the induced voltages are in the range of 430 to 650 V.
8. The telecom line shall be commissioned within a mutually acceptable time after completing provision of all protective measures as recommended by PTCC and also after obtaining specific clearance from the Power authority, if certain measures as recommended by PTCC are to be carried out on power system.
9. The later entrant in the field shall bear the entire cost of providing GD tubes and their fitting as recommended by PTCC, including 15% spares and/or any other protective measures as recommended by PTCC.
10. The route approval shall be subject to special conditions as laid down under Annexure XXVI.

Annexure XXV

1		
(a)	Name of the Power Supply authority seeking approval	M/s. NTPC , Ramagundam
(b)	Reference number & date:	176 MW SPV Ramagundam/PTCC/01/2162 dated 05.02.2026
(c)	Name of the Power line	33KV Feeder No. 3013, UG Cable from floating solar Block No. 1 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- Peddapalli (Length: - 4.50 kms)
(d)	Length of Power line:	4.50 kms
(e)	Operating Voltage	33 kV
(f)	Number of circuits	S/C
2		
(a)	Names of parallel telecom lines:	As per Annexure-XXVI
(b)	Length of parallelism:	As per Annexure-XXVI
3	Average value of earth resistivity in the region:	25000 ohm-cms
4	Whether LF test necessary:	No
5	Special conditions subject to which this certificate will be effective	As per Annexure-XXVI

Annexure XXVI

Name of the Power Line: 33KV Feeder No. 3013, UG Cable from floating solar Block No. 1 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- Peddapalli (Length: - 4.50 kms)

1. EPR zone for the proposed substation is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
Proposed 33kV Solar Block	21.26	25	0.3	350	224	2	N.A

Telecom authorities to ensure the protection of telecom equipment and personnel within the EPR zone of the proposed substation at the cost of the later entrant.

CEA Case No.: TNG - 154 - 14

Provisional Approval for the Route of Extra High Tension (EHT)/ High Tension (HT) Power Line / Telecommunication Line

Provisional Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed having a validity of 60 days from the date of issuance for **33KV Feeder No. 3014, UG Cable from floating solar Block No. 2 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- Peddapalli (Length: - 4.80 kms)** particulars of which are given in Annexure XXVII.

The approval is for the route only and is subject to the following conditions.

1. The approval is based on the Power system/ Telecom system conditions' details as reported by the Power supply authority/ Telecom authority at present. Any changes either to Transmission line or the Power system or the paralleling telecommunication lines which are likely to alter the low frequency induction from the estimated at present should be reported to PTCC for its prior approval.
2. The Power and Telecommunication authorities shall be required to adopt such measures as may be recommended by PTCC for counteracting any interference that might arise when the EHT line is in normal operation.
3. Each crossing should satisfy the conditions as laid down in Para 6 -10 of PTCC Code of Practice for crossings.
4. The angle of crossing shall be 90 degrees but in no case less than 60 degrees.
5. The power line shall be equipped with protective switchgear such that the duration of earth current shall be as short as possible but never exceeding 0.5 seconds.
6. The power line shall be energized within a mutually acceptable time limit after obtaining a Certificate from the concerned Telecom and/or Railway authority regarding completion of provision of all protective measures as recommended by PTCC and also under specific clearance from the Telecom and/or Railway authority maintaining the Telecom system.
7. The energization of Extra High Tension power lines would not be held up for want of installation of GD tubes on telecom lines when the induced voltages are in the range of 430 to 650 V.
8. The telecom line shall be commissioned within a mutually acceptable time after completing provision of all protective measures as recommended by PTCC and also after obtaining specific clearance from the Power authority, if certain measures as recommended by PTCC are to be carried out on power system.
9. The later entrant in the field shall bear the entire cost of providing GD tubes and their fitting as recommended by PTCC, including 15% spares and/or any other protective measures as recommended by PTCC.
10. The route approval shall be subject to special conditions as laid down under Annexure XXVIII.

Annexure XXVII

1		
(a)	Name of the Power Supply authority seeking approval	M/s. NTPC , Ramagundam
(b)	Reference number & date:	176 MW SPV Ramagundam/PTCC/01/2162 dated 05.02.2026
(c)	Name of the Power line	33KV Feeder No. 3014, UG Cable from floating solar Block No. 2 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- Peddapalli (Length: - 4.80 kms)
(d)	Length of Power line:	4.80 kms
(e)	Operating Voltage	33 kV
(f)	Number of circuits	S/C
2		
(a)	Names of parallel telecom lines:	As per Annexure-XXVIII
(b)	Length of parallelism:	As per Annexure-XXVIII
3	Average value of earth resistivity in the region:	25000 ohm-cms
4	Whether LF test necessary:	No
5	Special conditions subject to which this certificate will be effective	As per Annexure-XXVIII

Annexure XXVIII

Name of the Power Line: 33KV Feeder No. 3014, UG Cable from floating solar Block No. 2 of 176 MW Solar Power Plant of M/s. NTPC Limited to 400/33 KV PSS of NTPC Ramagundam at Village Ramagundam, District- Peddapalli (Length: - 4.80 kms)

1. EPR zone for the proposed substation is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
Proposed 33kV Solar Block	21.26	25	0.3	350	224	2	N.A

Telecom authorities to ensure the protection of telecom equipment and personnel within the EPR zone of the proposed substation at the cost of the later entrant.