



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 NTPC Renewable Energy Limited.

Provisional Route Approval Certificate for the following listed lines of NTPC Renewable Energy Limited is annexed to this letter:

S.No.	Name
1	33kV cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-8 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (7.06 km) sized cable from ICOG switch gear Plot-6 ICR-8 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:7.228 km)
2	33kV cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-9 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (5.41 km) sized cable from ICOG switch gear Plot-6 ICR-9 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:5.572 km)
3	33kV cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-10 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (3.74 km) sized cable from ICOG switch gear Plot-6 ICR-10 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length :3.909 km)
4	33kV cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-11 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (2.55 km) sized cable from ICOG switch gear Plot-6 ICR-11 to NTPC REL 33/400kV Pooling Substation for

	Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 2.72km)
5	33kV cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-12 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (4.19 km) sized cable from ICOG switch gear Plot-6 ICR-12 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 4.35km)
6	33kV cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-13 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (5.84 km) sized cable from ICOG switch gear Plot-6 ICR-13 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 6.007 km)
7	33kV cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-14 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (7.50 km) sized cable from ICOG switch gear Plot-6 ICR-14 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 7.663 km)
8	33kV cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-14 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (3.401 km) sized cable from ICOG switch gear Plot-7 ICR-14 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 3.563 km)
9	33kV cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-15 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (6.885 km) sized cable from ICOG switch gear Plot-7 ICR-15 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 7.047km)
10	33kV cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-16 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (8.513 km) sized cable from ICOG switch gear Plot-7 ICR-16 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 8.675 km)
11	33kV cable using 1Rx1Cx185 Sqmm (186.66 mtr) cable from Plot-7 ICR-17 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (10.157 km) sized cable from ICOG switch gear Plot-7 ICR-17 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (10.343 km)
12	33kV cable using 1Rx1Cx185 Sqmm (131.58 mtr) cable from Plot-7 ICR-18 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (11.803 km) sized cable from ICOG switch gear Plot-7 ICR-18 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:11.934km)
13	33kV cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-19 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (12.414 km) sized cable from ICOG switch gear Plot-7 ICR-19 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:12.576 km)

14	33kV cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-20 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (10.351 km) sized cable from ICOG switch gear Plot-7 ICR-20 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:10.513 km)
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Chief Engineer

1.	NTPC Renewable Energy Limited	NTPC REL, E-3, Ecotech-II, Udyog Vihar, Greater Noida, UP-201306
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CEA Case No.: GUJ-1101-P6-ICR-08

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 cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-8 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (7.06 km) sized cable from ICOG switch gear Plot-6 ICR-8 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:7.228 km) 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

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|-----|---|---|
| (a) | Name of the Power Supply authority seeking approval | NTPC Renewable Energy Limited |
| (b) | Reference number & date: | NTPC REL.Khavda/PTCC/2755 MW/26/03
dated 12.01.2026
E-mail dated 13.01.2026 |
| (c) | Name of the Power line | 33kV cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-8 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (7.06 km) sized cable from ICOG switch gear Plot-6 ICR-8 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:7.228 km) |
| (d) | Length of Power line: | 7.228 km |
| (e) | Operating Voltage | 33 kV |
| (f) | Number of circuits | 1 |

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|-----|--|--------------------|
| (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: | 15000 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 cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-8 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (7.06 km) sized cable from ICOG switch gear Plot-6 ICR-8 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:7.228 km)

1. BSNL Telecom Details:

DET (PTCC), WZ, BSNL vide letter: IC/MBI/PTCC/Offline/GUJ-3109&3120 dated 22.10.2025 has given their NOC.

2. Railway Telecom Details:

General Manager (S&T), Western Railway vide letter SG.158/28/12/1705 dated 05.12.2025 has issued their NOC.

3. 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
PSS-01 (NTPC REL Khavda RE Park)	119.7	63	0.023	284	147	NA	NA
Unit 33 kV IDT	24.4	25	0.5	685	445	19	6

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.: GUJ-1101-P6-ICR-09

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 cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-9 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (5.41 km) sized cable from ICOG switch gear Plot-6 ICR-9 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:5.572 km) 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

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|-----|---|---|
| (a) | Name of the Power Supply authority seeking approval | NTPC Renewable Energy Limited |
| (b) | Reference number & date: | NTPC REL.Khavda/PTCC/2755 MW/26/03
dated 12.01.2026
E-mail dated 13.01.2026 |
| (c) | Name of the Power line | 33kV cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-9 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (5.41 km) sized cable from ICOG switch gear Plot-6 ICR-9 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:5.572 km) |
| (d) | Length of Power line: | 5.572 km |
| (e) | Operating Voltage | 33 kV |
| (f) | Number of circuits | 1 |

2

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|-----|--|--------------------|
| (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: | 15000 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 cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-9 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (5.41 km) sized cable from ICOG switch gear Plot-6 ICR-9 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:5.572 km)

1. BSNL Telecom Details:

DET (PTCC), WZ, BSNL vide letter: IC/MBI/PTCC/Offline/GUJ-3109&3120 dated 22.10.2025 has given their NOC.

2. Railway Telecom Details:

General Manager (S&T), Western Railway vide letter SG.158/28/12/1705 dated 05.12.2025 has issued their NOC.

3. 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
PSS-01 (NTPC REL Khavda RE Park)	119.7	63	0.023	284	147	NA	NA
Unit 33 kV IDT	24.4	25	0.5	685	445	19	6

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.: GUJ-1101-P6-ICR-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 cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-10 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (3.74 km) sized cable from ICOG switch gear Plot-6 ICR-10 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length :3.909 km) 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

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|-----|---|---|
| (a) | Name of the Power Supply authority seeking approval | NTPC Renewable Energy Limited |
| (b) | Reference number & date: | NTPC REL.Khavda/PTCC/2755 MW/26/03
dated 12.01.2026
E-mail dated 13.01.2026 |
| (c) | Name of the Power line | 33kV cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-10 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (3.74 km) sized cable from ICOG switch gear Plot-6 ICR-10 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length :3.909 km) |
| (d) | Length of Power line: | 3.909 km |
| (e) | Operating Voltage | 33 kV |
| (f) | Number of circuits | 1 |

2

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|-----|--|--------------------|
| (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: | 15000 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 cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-10 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (3.74 km) sized cable from ICOG switch gear Plot-6 ICR-10 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length :3.909 km)

1. BSNL Telecom Details:

DET (PTCC), WZ, BSNL vide letter: IC/MBI/PTCC/Offline/GUJ-3109&3120 dated 22.10.2025 has given their NOC.

2. Railway Telecom Details:

General Manager (S&T), Western Railway vide letter SG.158/28/12/1705 dated 05.12.2025 has issued their NOC.

3. 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
PSS-01 (NTPC REL Khavda RE Park)	119.7	63	0.023	284	147	NA	NA
Unit 33 kV IDT	24.4	25	0.5	685	445	19	6

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.: GUJ-1101-P6-ICR-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 cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-11 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (2.55 km) sized cable from ICOG switch gear Plot-6 ICR-11 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 2.72km) 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

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|-----|---|---|
| (a) | Name of the Power Supply authority seeking approval | NTPC Renewable Energy Limited |
| (b) | Reference number & date: | NTPC REL.Khavda/PTCC/2755 MW/26/03
dated 12.01.2026
E-mail dated 13.01.2026 |
| (c) | Name of the Power line | 33kV cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-11 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (2.55 km) sized cable from ICOG switch gear Plot-6 ICR-11 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 2.72km) |
| (d) | Length of Power line: | 2.72 km |
| (e) | Operating Voltage | 33 kV |
| (f) | Number of circuits | 1 |

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|-----|--|----------------------|
| (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: | 15000 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 cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-11 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (2.55 km) sized cable from ICOG switch gear Plot-6 ICR-11 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 2.72km)

1. BSNL Telecom Details:

DET (PTCC), WZ, BSNL vide letter: IC/MBI/PTCC/Offline/GUJ-3109&3120 dated 22.10.2025 has given their NOC.

2. Railway Telecom Details:

General Manager (S&T), Western Railway vide letter SG.158/28/12/1705 dated 05.12.2025 has issued their NOC.

3. 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
PSS-01 (NTPC REL Khavda RE Park)	119.7	63	0.023	284	147	NA	NA
Unit 33 kV IDT	24.4	25	0.5	685	445	19	6

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.: GUJ-1101-P6-ICR-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 cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-12 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (4.19 km) sized cable from ICOG switch gear Plot-6 ICR-12 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 4.35km) 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 NTPC Renewable Energy Limited
- (b) Reference number & date: NTPC REL.Khavda/PTCC/2755 MW/26/03
dated 12.01.2026
E-mail dated 13.01.2026
- (c) Name of the Power line 33kV cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-12 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (4.19 km) sized cable from ICOG switch gear Plot-6 ICR-12 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 4.35km)
- (d) Length of Power line: 4.35 km
- (e) Operating Voltage 33 kV
- (f) Number of circuits 1

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: 15000 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 cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-12 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (4.19 km) sized cable from ICOG switch gear Plot-6 ICR-12 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 4.35km)

1. BSNL Telecom Details:

DET (PTCC), WZ, BSNL vide letter: IC/MBI/PTCC/Offline/GUJ-3109&3120 dated 22.10.2025 has given their NOC.

2. Railway Telecom Details:

General Manager (S&T), Western Railway vide letter SG.158/28/12/1705 dated 05.12.2025 has issued their NOC.

3. 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
PSS-01 (NTPC REL Khavda RE Park)	119.7	63	0.023	284	147	NA	NA
Unit 33 kV IDT	24.4	25	0.5	685	445	19	6

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.: GUJ-1101-P6-ICR-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 cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-13 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (5.84 km) sized cable from ICOG switch gear Plot-6 ICR-13 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 6.007 km) 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 NTPC Renewable Energy Limited
- (b) Reference number & date: NTPC REL.Khavda/PTCC/2755 MW/26/03
dated 12.01.2026
E-mail dated 13.01.2026
- (c) Name of the Power line 33kV cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-13 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (5.84 km) sized cable from ICOG switch gear Plot-6 ICR-13 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 6.007 km)
- (d) Length of Power line: 6.007 km
- (e) Operating Voltage 33 kV
- (f) Number of circuits 1

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: 15000 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 cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-13 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (5.84 km) sized cable from ICOG switch gear Plot-6 ICR-13 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 6.007 km)

1. BSNL Telecom Details:

DET (PTCC), WZ, BSNL vide letter: IC/MBI/PTCC/Offline/GUJ-3109&3120 dated 22.10.2025 has given their NOC.

2. Railway Telecom Details:

General Manager (S&T), Western Railway vide letter SG.158/28/12/1705 dated 05.12.2025 has issued their NOC.

3. 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
PSS-01 (NTPC REL Khavda RE Park)	119.7	63	0.023	284	147	NA	NA
Unit 33 kV IDT	24.4	25	0.5	685	445	19	6

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.: GUJ-1101-P6-ICR-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 cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-14 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (7.50 km) sized cable from ICOG switch gear Plot-6 ICR-14 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat(Length: 7.663 km) 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

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|-----|---|---|
| (a) | Name of the Power Supply authority seeking approval | NTPC Renewable Energy Limited |
| (b) | Reference number & date: | NTPC REL.Khavda/PTCC/2755 MW/26/03
dated 12.01.2026
E-mail dated 13.01.2026 |
| (c) | Name of the Power line | 33kV cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-14 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (7.50 km) sized cable from ICOG switch gear Plot-6 ICR-14 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 7.663 km) |
| (d) | Length of Power line: | 7.663 km |
| (e) | Operating Voltage | 33 kV |
| (f) | Number of circuits | 1 |

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: | 15000 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 cable using 1Rx1Cx185 Sqmm (162.18 m) cable from Plot-6 ICR-14 IDT to ICOG switch gear and 1Rx1Cx300Sqmm (7.50 km) sized cable from ICOG switch gear Plot-6 ICR-14 to NTPC REL 33/400kV Pooling Substation for Plot-6 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 7.663 km)

1. BSNL Telecom Details:

DET (PTCC), WZ, BSNL vide letter: IC/MBI/PTCC/Offline/GUJ-3109&3120 dated 22.10.2025 has given their NOC.

2. Railway Telecom Details:

General Manager (S&T), Western Railway vide letter SG.158/28/12/1705 dated 05.12.2025 has issued their NOC.

3. 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
PSS-01 (NTPC REL Khavda RE Park)	119.7	63	0.023	284	147	NA	NA
Unit 33 kV IDT	24.4	25	0.5	685	445	19	6

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.: GUJ-1101-P7-ICR-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 cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-14 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (3.401 km) sized cable from ICOG switch gear Plot-7 ICR-14 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 3.563 km) 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 NTPC Renewable Energy Limited
- (b) Reference number & date: NTPC REL.Khavda/PTCC/2755 MW/26/03
dated 12.01.2026
E-mail dated 13.01.2026
- (c) Name of the Power line 33kV cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-14 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (3.401 km) sized cable from ICOG switch gear Plot-7 ICR-14 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat(Length: 3.563 km)
- (d) Length of Power line: 3.563 km
- (e) Operating Voltage 33 kV
- (f) Number of circuits 1

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: 15000 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 cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-14 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (3.401 km) sized cable from ICOG switch gear Plot-7 ICR-14 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 3.563 km)

1. BSNL Telecom Details:

DET (PTCC), WZ, BSNL vide letter: IC/MBI/PTCC/Offline/GUJ-3109&3120 dated 22.10.2025 has given their NOC.

2. Railway Telecom Details:

General Manager (S&T), Western Railway vide letter SG.158/28/12/1705 dated 05.12.2025 has issued their NOC.

3. 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
PSS-01 (NTPC REL Khavda RE Park)	119.7	63	0.023	284	147	NA	NA
Unit 33 kV IDT	24.4	25	0.5	685	445	19	6

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.: GUJ-1101-P7-ICR-15

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 cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-15 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (6.885 km) sized cable from ICOG switch gear Plot-7 ICR-15 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 7.047km) 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

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|-----|---|--|
| (a) | Name of the Power Supply authority seeking approval | NTPC Renewable Energy Limited |
| (b) | Reference number & date: | NTPC REL.Khavda/PTCC/2755 MW/26/03
dated 12.01.2026
E-mail dated 13.01.2026 |
| (c) | Name of the Power line | 33kV cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-15 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (6.885 km) sized cable from ICOG switch gear Plot-7 ICR-15 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 7.047km) |
| (d) | Length of Power line: | 7.047 km |
| (e) | Operating Voltage | 33 kV |
| (f) | Number of circuits | 1 |

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: | 15000 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 cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-15 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (6.885 km) sized cable from ICOG switch gear Plot-7 ICR-15 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 7.047km)

1. BSNL Telecom Details:

DET (PTCC), WZ, BSNL vide letter: IC/MBI/PTCC/Offline/GUJ-3109&3120 dated 22.10.2025 has given their NOC.

2. Railway Telecom Details:

General Manager (S&T), Western Railway vide letter SG.158/28/12/1705 dated 05.12.2025 has issued their NOC.

3. 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
PSS-01 (NTPC REL Khavda RE Park)	119.7	63	0.023	284	147	NA	NA
Unit 33 kV IDT	24.4	25	0.5	685	445	19	6

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.: GUJ-1101-P7-ICR-16

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 cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-16 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (8.513 km) sized cable from ICOG switch gear Plot-7 ICR-16 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 8.675 km) 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

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|-----|---|---|
| (a) | Name of the Power Supply authority seeking approval | NTPC Renewable Energy Limited |
| (b) | Reference number & date: | NTPC REL.Khavda/PTCC/2755 MW/26/03
dated 12.01.2026
E-mail dated 13.01.2026 |
| (c) | Name of the Power line | 33kV cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-16 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (8.513 km) sized cable from ICOG switch gear Plot-7 ICR-16 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 8.675 km) |
| (d) | Length of Power line: | 8.675 km |
| (e) | Operating Voltage | 33 kV |
| (f) | Number of circuits | 1 |

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: | 15000 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 cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-16 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (8.513 km) sized cable from ICOG switch gear Plot-7 ICR-16 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length: 8.675 km)

1. BSNL Telecom Details:

DET (PTCC), WZ, BSNL vide letter: IC/MBI/PTCC/Offline/GUJ-3109&3120 dated 22.10.2025 has given their NOC.

2. Railway Telecom Details:

General Manager (S&T), Western Railway vide letter SG.158/28/12/1705 dated 05.12.2025 has issued their NOC.

3. 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
PSS-01 (NTPC REL Khavda RE Park)	119.7	63	0.023	284	147	NA	NA
Unit 33 kV IDT	24.4	25	0.5	685	445	19	6

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.: GUJ-1101-P7-ICR-17

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 cable using 1Rx1Cx185 Sqmm (186.66 mtr) cable from Plot-7 ICR-17 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (10.157 km) sized cable from ICOG switch gear Plot-7 ICR-17 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (10.343 km) 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 | NTPC Renewable Energy Limited |
| (b) | Reference number & date: | NTPC REL.Khavda/PTCC/2755 MW/26/03
dated 12.01.2026
E-mail dated 13.01.2026 |
| (c) | Name of the Power line | 33kV cable using 1Rx1Cx185 Sqmm (186.66 mtr) cable from Plot-7 ICR-17 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (10.157 km) sized cable from ICOG switch gear Plot-7 ICR-17 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (10.343 km) |
| (d) | Length of Power line: | 10.343 km |
| (e) | Operating Voltage | 33 kV |
| (f) | Number of circuits | 1 |

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: | 15000 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 cable using 1Rx1Cx185 Sqmm (186.66 mtr) cable from Plot-7 ICR-17 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (10.157 km) sized cable from ICOG switch gear Plot-7 ICR-17 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (10.343 km)

1. BSNL Telecom Details:

DET (PTCC), WZ, BSNL vide letter: IC/MBI/PTCC/Offline/GUJ-3109&3120 dated 22.10.2025 has given their NOC.

2. Railway Telecom Details:

General Manager (S&T), Western Railway vide letter SG.158/28/12/1705 dated 05.12.2025 has issued their NOC.

3. 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
PSS-01 (NTPC REL Khavda RE Park)	119.7	63	0.023	284	147	NA	NA
Unit 33 kV IDT	24.4	25	0.5	685	445	19	6

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.: GUJ-1101-P7-ICR-18

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 cable using 1Rx1Cx185 Sqmm (131.58 mtr) cable from Plot-7 ICR-18 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (11.803 km) sized cable from ICOG switch gear Plot-7 ICR-18 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:11.934km) 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 NTPC Renewable Energy Limited
- (b) Reference number & date: NTPC REL.Khavda/PTCC/2755 MW/26/03
dated 12.01.2026
E-mail dated 13.01.2026
- (c) Name of the Power line 33kV cable using 1Rx1Cx185 Sqmm (131.58 mtr) cable from Plot-7 ICR-18 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (11.803 km) sized cable from ICOG switch gear Plot-7 ICR-18 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:11.934km)
- (d) Length of Power line: 11.934 km
- (e) Operating Voltage 33 kV
- (f) Number of circuits 1

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: 15000 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 cable using 1Rx1Cx185 Sqmm (131.58 mtr) cable from Plot-7 ICR-18 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (11.803 km) sized cable from ICOG switch gear Plot-7 ICR-18 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:11.934km)

1. BSNL Telecom Details:

DET (PTCC), WZ, BSNL vide letter: IC/MBI/PTCC/Offline/GUJ-3109&3120 dated 22.10.2025 has given their NOC.

2. Railway Telecom Details:

General Manager (S&T), Western Railway vide letter SG.158/28/12/1705 dated 05.12.2025 has issued their NOC.

3. 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
PSS-01 (NTPC REL Khavda RE Park)	119.7	63	0.023	284	147	NA	NA
Unit 33 kV IDT	24.4	25	0.5	685	445	19	6

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.: GUJ-1101-P7-ICR-19

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 cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-19 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (12.414 km) sized cable from ICOG switch gear Plot-7 ICR-19 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:12.576 km) 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 NTPC Renewable Energy Limited
- (b) Reference number & date: NTPC REL.Khavda/PTCC/2755 MW/26/03
dated 12.01.2026
E-mail dated 13.01.2026
- (c) Name of the Power line 33kV cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-19 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (12.414 km) sized cable from ICOG switch gear Plot-7 ICR-19 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:12.576 km)
- (d) Length of Power line: 12.576 km
- (e) Operating Voltage 33 kV
- (f) Number of circuits 1

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: 15000 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 cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-19 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (12.414 km) sized cable from ICOG switch gear Plot-7 ICR-19 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:12.576 km)

1. BSNL Telecom Details:

DET (PTCC), WZ, BSNL vide letter: IC/MBI/PTCC/Offline/GUJ-3109&3120 dated 22.10.2025 has given their NOC.

2. Railway Telecom Details:

General Manager (S&T), Western Railway vide letter SG.158/28/12/1705 dated 05.12.2025 has issued their NOC.

3. 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
PSS-01 (NTPC REL Khavda RE Park)	119.7	63	0.023	284	147	NA	NA
Unit 33 kV IDT	24.4	25	0.5	685	445	19	6

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.: GUJ-1101-P7-ICR-20

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 cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-20 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (10.351 km) sized cable from ICOG switch gear Plot-7 ICR-20 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:10.513 km) 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 NTPC Renewable Energy Limited
- (b) Reference number & date: NTPC REL.Khavda/PTCC/2755 MW/26/03
dated 12.01.2026
E-mail dated 13.01.2026
- (c) Name of the Power line 33kV cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-20 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (10.351 km) sized cable from ICOG switch gear Plot-7 ICR-20 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:10.513 km)
- (d) Length of Power line: 10.513 km
- (e) Operating Voltage 33 kV
- (f) Number of circuits 1

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: 15000 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 cable using 1Rx1Cx185 Sqmm (162.18 mtr) cable from Plot-7 ICR-20 IDT to ICOG Switchgear and 1Rx1Cx300Sqmm (10.351 km) sized cable from ICOG switch gear Plot-7 ICR-20 to NTPC REL 33/400kV Pooling Substation for Plot-7 (300 MW AC), Solar PV Plant of M/s. NTPC REL at Khavda, Gujarat (Length:10.513 km)

1. BSNL Telecom Details:

DET (PTCC), WZ, BSNL vide letter: IC/MBI/PTCC/Offline/GUJ-3109&3120 dated 22.10.2025 has given their NOC.

2. Railway Telecom Details:

General Manager (S&T), Western Railway vide letter SG.158/28/12/1705 dated 05.12.2025 has issued their NOC.

3. 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
PSS-01 (NTPC REL Khavda RE Park)	119.7	63	0.023	284	147	NA	NA
Unit 33 kV IDT	24.4	25	0.5	685	445	19	6

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.