



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: Certificate of Approval for the Route of Power Line of M/s NTPC Limited.

Route Approval Certificate for the following listed lines of M/s NTPC Limited is annexed to this letter:

S.No.	Name
1	33 kV S/C 1CX300 sqmm Al UG cable from Block-20, Block-21 & Block-22 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 6.7 kms)
2	33 kV S/C 1CX300 sqmm Al UG cable from Block-23 & Block-19 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 4.03 kms)
3	33 kV S/C 1CX300 sqmm Al UG cable from Block-4, Block-5 & Block-6 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 21 kms)
4	33 kV S/C 1CX300 sqmm Al UG cable from Block-10, Block-11 & Block-12 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 23.8 kms)
5	33 kV S/C 1CX300 sqmm Al UG cable from Block-24 & Block-25 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 2.6 kms)
6	33 kV S/C 1CX300 sqmm Al UG cable from Block-13, Block-17 & Block-18 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 19.5 kms)
7	33 kV S/C 1CX300 sqmm Al UG cable from Block-14, Block-15 & Block-16 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 7.2 kms)
8	33 kV S/C 1CX300 sqmm Al UG cable from Block-1, Block-2 & Block-3 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 14.46 kms)
9	33 kV S/C 1CX300 sqmm Al UG cable from Block-7, Block-8 & Block-9 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 12.6 kms)

10	33 kV S/C 1CX300 sqmm Al UG cable from Block-31, Block-32 & Block-33 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 16.9 kms)
11	33 kV S/C 1CX300 sqmm Al UG cable from Block-28, Block-29 & Block-30 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 14.29 kms)
12	33 kV S/C 1CX300 sqmm Al UG cable from Block-26 & Block-27 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 6.5 kms)

Chief Engineer

1.	M/s NTPC Limited	Nokh Solar Project, Behind Kurja Resort, railway Station Road, Khichan, Phalodi, Jodhpur – 342 301
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CEA Case No.: RAJ-888-02-B20_22**Approval for the Route of Extra High Tension (EHT) Power Line / Telecommunication Line**

Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed for **33 kV S/C 1CX300 sqmm Al UG cable from Block-20, Block-21 & Block-22 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 6.7 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 Limited
- (b) Reference number & date: NIL dated NIL (received on 14.08.2025)
- (c) Name of the Power line 33 kV S/C 1CX300 sqmm Al UG cable from Block-20, Block-21 & Block-22 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 6.7 kms)
- (d) Length of Power line: 6.7 kms
- (e) Operating Voltage 33 kV
- (f) Number of circuits 1

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: 33 kV S/C 1CX300 sqmm Al UG cable from Block-20, Block-21 & Block-22 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 6.7 kms)

1. BSNL Telecom Details:

AGM (NOW), Jodhpur, BSNL vide letter RJCO-18/16(13)/2020-CFA/19012 dated 07.08.2025 has stated non-existence of any overhead/ underground Copper cable/ armoured OFC cable or BTS within the 5 kms boundary of the proposed power line.

2. Railway Telecom Details:

Deputy CSTE/ Tele North Western Railway vide letter SG/158/NWR/PTCC/1191 dated 25.08.2025 has issued their NOC.

3. Defense Telecom Details:

ADG (Telecom), MoD, vide letter B/46937/Sigs-7(b)/5058 dated 23.10.2025 has issued their NOC.

4. 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
220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi	95.44	44.1	0.5	4799	3142	205	115
Inverter Duty Transformer	6.02	15	0.5	99	63	0	NA

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.: RAJ-888-02-B-23-B19**Approval for the Route of Extra High Tension (EHT) Power Line / Telecommunication Line**

Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed for **33 kV S/C 1CX300 sqmm Al UG cable from Block-23 & Block-19 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 4.03 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 Limited
- (b) Reference number & date: NIL dated NIL (received on 14.08.2025)
- (c) Name of the Power line 33 kV S/C 1CX300 sqmm Al UG cable from Block-23 & Block-19 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 4.03 kms)
- (d) Length of Power line: 4.03 kms
- (e) Operating Voltage 33 kV
- (f) Number of circuits 1

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: 33 kV S/C 1CX300 sqmm Al UG cable from Block-23 & Block-19 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 4.03 kms)

1. BSNL Telecom Details:

AGM (NOW), Jodhpur, BSNL vide letter RJCO-18/16(13)/2020-CFA/19012 dated 07.08.2025 has stated non-existence of any overhead/ underground Copper cable/ armoured OFC cable or BTS within the 5 kms boundary of the proposed power line.

2. Railway Telecom Details:

Deputy CSTE/ Tele North Western Railway vide letter SG/158/NWR/PTCC/1191 dated 25.08.2025 has issued their NOC.

3. Defense Telecom Details:

ADG (Telecom), MoD, vide letter B/46937/Sigs-7(b)/5058 dated 23.10.2025 has issued their NOC.

4. 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
220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi	95.44	44.1	0.5	4799	3142	205	115
Inverter Duty Transformer	6.02	15	0.5	99	63	0	NA

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.: RAJ-888-02-B-4_6**Approval for the Route of Extra High Tension (EHT) Power Line / Telecommunication Line**

Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed for **33 kV S/C 1CX300 sqmm Al UG cable from Block-4, Block-5 & Block-6 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 21 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

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|-----|---|---|
| (a) | Name of the Power Supply authority seeking approval | M/s NTPC Limited |
| (b) | Reference number & date: | NIL dated NIL (received on 14.08.2025) |
| (c) | Name of the Power line | 33 kV S/C 1CX300 sqmm Al UG cable from Block-4, Block-5 & Block-6 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 21 kms) |
| (d) | Length of Power line: | 21 kms |
| (e) | Operating Voltage | 33 kV |
| (f) | Number of circuits | 1 |

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: 33 kV S/C 1CX300 sqmm Al UG cable from Block-4, Block-5 & Block-6 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 21 kms)

1. BSNL Telecom Details:

AGM (NOW), Jodhpur, BSNL vide letter RJCO-18/16(13)/2020-CFA/19012 dated 07.08.2025 has stated non-existence of any overhead/ underground Copper cable/ armoured OFC cable or BTS within the 5 kms boundary of the proposed power line.

2. Railway Telecom Details:

Deputy CSTE/ Tele North Western Railway vide letter SG/158/NWR/PTCC/1191 dated 25.08.2025 has issued their NOC.

3. Defense Telecom Details:

ADG (Telecom), MoD, vide letter B/46937/Sigs-7(b)/5058 dated 23.10.2025 has issued their NOC.

4. 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
220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi	95.44	44.1	0.5	4799	3142	205	115
Inverter Duty Transformer	6.02	15	0.5	99	63	0	NA

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.: RAJ-888-02-B-10_12**Approval for the Route of Extra High Tension (EHT) Power Line / Telecommunication Line**

Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed for **33 kV S/C 1CX300 sqmm Al UG cable from Block-10, Block-11 & Block-12 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 23.8 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 Limited
- (b) Reference number & date: NIL dated NIL (received on 14.08.2025)
- (c) Name of the Power line 33 kV S/C 1CX300 sqmm Al UG cable from Block-10, Block-11 & Block-12 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 23.8 kms)
- (d) Length of Power line: 23.8 kms
- (e) Operating Voltage 33 kV
- (f) Number of circuits 1

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: 33 kV S/C 1CX300 sqmm Al UG cable from Block-10, Block-11 & Block-12 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 23.8 kms)

1. BSNL Telecom Details:

AGM (NOW), Jodhpur, BSNL vide letter RJCO-18/16(13)/2020-CFA/19012 dated 07.08.2025 has stated non-existence of any overhead/ underground Copper cable/ armoured OFC cable or BTS within the 5 kms boundary of the proposed power line.

2. Railway Telecom Details:

Deputy CSTE/ Tele North Western Railway vide letter SG/158/NWR/PTCC/1191 dated 25.08.2025 has issued their NOC.

3. Defense Telecom Details:

ADG (Telecom), MoD, vide letter B/46937/Sigs-7(b)/5058 dated 23.10.2025 has issued their NOC.

4. 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
220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi	95.44	44.1	0.5	4799	3142	205	115
Inverter Duty Transformer	6.02	15	0.5	99	63	0	NA

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.: RAJ-888-02-B-24_25**Approval for the Route of Extra High Tension (EHT) Power Line / Telecommunication Line**

Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed for **33 kV S/C 1CX300 sqmm AI UG cable from Block-24 & Block-25 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 2.6 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 Limited
- (b) Reference number & date: NIL dated NIL (received on 14.08.2025)
- (c) Name of the Power line 33 kV S/C 1CX300 sqmm Al UG cable from Block-24 & Block-25 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 2.6 kms)
- (d) Length of Power line: 2.6 kms
- (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: 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: 33 kV S/C 1CX300 sqmm Al UG cable from Block-24 & Block-25 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 2.6 kms)

1. BSNL Telecom Details:

AGM (NOW), Jodhpur, BSNL vide letter RJCO-18/16(13)/2020-CFA/19012 dated 07.08.2025 has stated non-existence of any overhead/ underground Copper cable/ armoured OFC cable or BTS within the 5 kms boundary of the proposed power line.

2. Railway Telecom Details:

Deputy CSTE/ Tele North Western Railway vide letter SG/158/NWR/PTCC/1191 dated 25.08.2025 has issued their NOC.

3. Defense Telecom Details:

ADG (Telecom), MoD, vide letter B/46937/Sigs-7(b)/5058 dated 23.10.2025 has issued their NOC.

4. 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
220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi	95.44	44.1	0.5	4799	3142	205	115
Inverter Duty Transformer	6.02	15	0.5	99	63	0	NA

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.: RAJ-888-02-B-13-B17**Approval for the Route of Extra High Tension (EHT) Power Line / Telecommunication Line**

Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed for **33 kV S/C 1CX300 sqmm Al UG cable from Block-13, Block-17 & Block-18 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 19.5 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 Limited
- (b) Reference number & date: NIL dated NIL (received on 14.08.2025)
- (c) Name of the Power line 33 kV S/C 1CX300 sqmm Al UG cable from Block-13, Block-17 & Block-18 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 19.5 kms)
- (d) Length of Power line: 19.5 kms
- (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: 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: 33 kV S/C 1CX300 sqmm Al UG cable from Block-13, Block-17 & Block-18 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 19.5 kms)

1. BSNL Telecom Details:

AGM (NOW), Jodhpur, BSNL vide letter RJCO-18/16(13)/2020-CFA/19012 dated 07.08.2025 has stated non-existence of any overhead/ underground Copper cable/ armoured OFC cable or BTS within the 5 kms boundary of the proposed power line.

2. Railway Telecom Details:

Deputy CSTE/ Tele North Western Railway vide letter SG/158/NWR/PTCC/1191 dated 25.08.2025 has issued their NOC.

3. Defense Telecom Details:

ADG (Telecom), MoD, vide letter B/46937/Sigs-7(b)/5058 dated 23.10.2025 has issued their NOC.

4. 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
220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi	95.44	44.1	0.5	4799	3142	205	115
Inverter Duty Transformer	6.02	15	0.5	99	63	0	NA

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.: RAJ-888-02-B-14_16**Approval for the Route of Extra High Tension (EHT) Power Line / Telecommunication Line**

Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed for **33 kV S/C 1CX300 sqmm Al UG cable from Block-14, Block-15 & Block-16 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 7.2 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 Limited
- (b) Reference number & date: NIL dated NIL (received on 14.08.2025)
- (c) Name of the Power line 33 kV S/C 1CX300 sqmm Al UG cable from Block-14, Block-15 & Block-16 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 7.2 kms)
- (d) Length of Power line: 7.2 kms
- (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: 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: 33 kV S/C 1CX300 sqmm Al UG cable from Block-14, Block-15 & Block-16 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 7.2 kms)

1. BSNL Telecom Details:

AGM (NOW), Jodhpur, BSNL vide letter RJCO-18/16(13)/2020-CFA/19012 dated 07.08.2025 has stated non-existence of any overhead/ underground Copper cable/ armoured OFC cable or BTS within the 5 kms boundary of the proposed power line.

2. Railway Telecom Details:

Deputy CSTE/ Tele North Western Railway vide letter SG/158/NWR/PTCC/1191 dated 25.08.2025 has issued their NOC.

3. Defense Telecom Details:

ADG (Telecom), MoD, vide letter B/46937/Sigs-7(b)/5058 dated 23.10.2025 has issued their NOC.

4. 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
220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi	95.44	44.1	0.5	4799	3142	205	115
Inverter Duty Transformer	6.02	15	0.5	99	63	0	NA

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.: RAJ-888-02-B-1_3**Approval for the Route of Extra High Tension (EHT) Power Line / Telecommunication Line**

Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed for **33 kV S/C 1CX300 sqmm Al UG cable from Block-1, Block-2 & Block-3 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 14.46 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 Limited
- (b) Reference number & date: NIL dated NIL (received on 14.08.2025)
- (c) Name of the Power line 33 kV S/C 1CX300 sqmm Al UG cable from Block-1, Block-2 & Block-3 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 14.46 kms)
- (d) Length of Power line: 14.46 kms
- (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: 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: 33 kV S/C 1CX300 sqmm Al UG cable from Block-1, Block-2 & Block-3 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 14.46 kms)

1. BSNL Telecom Details:

AGM (NOW), Jodhpur, BSNL vide letter RJCO-18/16(13)/2020-CFA/19012 dated 07.08.2025 has stated non-existence of any overhead/ underground Copper cable/ armoured OFC cable or BTS within the 5 kms boundary of the proposed power line.

2. Railway Telecom Details:

Deputy CSTE/ Tele North Western Railway vide letter SG/158/NWR/PTCC/1191 dated 25.08.2025 has issued their NOC.

3. Defense Telecom Details:

ADG (Telecom), MoD, vide letter B/46937/Sigs-7(b)/5058 dated 23.10.2025 has issued their NOC.

4. 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
220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi	95.44	44.1	0.5	4799	3142	205	115
Inverter Duty Transformer	6.02	15	0.5	99	63	0	NA

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.: RAJ-888-02-B-7_9**Approval for the Route of Extra High Tension (EHT) Power Line / Telecommunication Line**

Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed for **33 kV S/C 1CX300 sqmm Al UG cable from Block-7, Block-8 & Block-9 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 12.6 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 Limited
- (b) Reference number & date: NIL dated NIL (received on 14.08.2025)
- (c) Name of the Power line 33 kV S/C 1CX300 sqmm Al UG cable from Block-7, Block-8 & Block-9 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 12.6 kms)
- (d) Length of Power line: 12.6 kms
- (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: 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: 33 kV S/C 1CX300 sqmm Al UG cable from Block-7, Block-8 & Block-9 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 12.6 kms)

1. BSNL Telecom Details:

AGM (NOW), Jodhpur, BSNL vide letter RJCO-18/16(13)/2020-CFA/19012 dated 07.08.2025 has stated non-existence of any overhead/ underground Copper cable/ armoured OFC cable or BTS within the 5 kms boundary of the proposed power line.

2. Railway Telecom Details:

Deputy CSTE/ Tele North Western Railway vide letter SG/158/NWR/PTCC/1191 dated 25.08.2025 has issued their NOC.

3. Defense Telecom Details:

ADG (Telecom), MoD, vide letter B/46937/Sigs-7(b)/5058 dated 23.10.2025 has issued their NOC.

4. 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
220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi	95.44	44.1	0.5	4799	3142	205	115
Inverter Duty Transformer	6.02	15	0.5	99	63	0	NA

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.: RAJ-888-02-B-31_33**Approval for the Route of Extra High Tension (EHT) Power Line / Telecommunication Line**

Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed for **33 kV S/C 1CX300 sqmm Al UG cable from Block-31, Block-32 & Block-33 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 16.9 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 Limited
- (b) Reference number & date: NIL dated NIL (received on 14.08.2025)
- (c) Name of the Power line 33 kV S/C 1CX300 sqmm Al UG cable from Block-31, Block-32 & Block-33 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 16.9 kms)
- (d) Length of Power line: 16.9 kms
- (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: 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: 33 kV S/C 1CX300 sqmm Al UG cable from Block-31, Block-32 & Block-33 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 16.9 kms)

1. BSNL Telecom Details:

AGM (NOW), Jodhpur, BSNL vide letter RJCO-18/16(13)/2020-CFA/19012 dated 07.08.2025 has stated non-existence of any overhead/ underground Copper cable/ armoured OFC cable or BTS within the 5 kms boundary of the proposed power line.

2. Railway Telecom Details:

Deputy CSTE/ Tele North Western Railway vide letter SG/158/NWR/PTCC/1191 dated 25.08.2025 has issued their NOC.

3. Defense Telecom Details:

ADG (Telecom), MoD, vide letter B/46937/Sigs-7(b)/5058 dated 23.10.2025 has issued their NOC.

4. 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
220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi	95.44	44.1	0.5	4799	3142	205	115
Inverter Duty Transformer	6.02	15	0.5	99	63	0	NA

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.: RAJ-888-02-B-28_30**Approval for the Route of Extra High Tension (EHT) Power Line / Telecommunication Line**

Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed for **33 kV S/C 1CX300 sqmm Al UG cable from Block-28, Block-29 & Block-30 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 14.29 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 Limited
- (b) Reference number & date: NIL dated NIL (received on 14.08.2025)
- (c) Name of the Power line 33 kV S/C 1CX300 sqmm Al UG cable from Block-28, Block-29 & Block-30 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 14.29 kms)
- (d) Length of Power line: 14.29 kms
- (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: 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: 33 kV S/C 1CX300 sqmm Al UG cable from Block-28, Block-29 & Block-30 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 14.29 kms)

1. BSNL Telecom Details:

AGM (NOW), Jodhpur, BSNL vide letter RJCO-18/16(13)/2020-CFA/19012 dated 07.08.2025 has stated non-existence of any overhead/ underground Copper cable/ armoured OFC cable or BTS within the 5 kms boundary of the proposed power line.

2. Railway Telecom Details:

Deputy CSTE/ Tele North Western Railway vide letter SG/158/NWR/PTCC/1191 dated 25.08.2025 has issued their NOC.

3. Defense Telecom Details:

ADG (Telecom), MoD, vide letter B/46937/Sigs-7(b)/5058 dated 23.10.2025 has issued their NOC.

4. 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
220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi	95.44	44.1	0.5	4799	3142	205	115
Inverter Duty Transformer	6.02	15	0.5	99	63	0	NA

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.: RAJ-888-02-B-26_27**Approval for the Route of Extra High Tension (EHT) Power Line / Telecommunication Line**

Approval of the Central Level Power & Telecommunication Co-ordination Committee is hereby conveyed for **33 kV S/C 1CX300 sqmm Al UG cable from Block-26 & Block-27 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 6.5 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 Limited
- (b) Reference number & date: NIL dated NIL (received on 14.08.2025)
- (c) Name of the Power line 33 kV S/C 1CX300 sqmm Al UG cable from Block-26 & Block-27 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 6.5 kms)
- (d) Length of Power line: 6.5 kms
- (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: 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: 33 kV S/C 1CX300 sqmm Al UG cable from Block-26 & Block-27 of 245 MW Plot#2 Solar Park of M/s NTPC Limited to 220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi (Length: 6.5 kms)

1. BSNL Telecom Details:

AGM (NOW), Jodhpur, BSNL vide letter RJCO-18/16(13)/2020-CFA/19012 dated 07.08.2025 has stated non-existence of any overhead/ underground Copper cable/ armoured OFC cable or BTS within the 5 kms boundary of the proposed power line.

2. Railway Telecom Details:

Deputy CSTE/ Tele North Western Railway vide letter SG/158/NWR/PTCC/1191 dated 25.08.2025 has issued their NOC.

3. Defense Telecom Details:

ADG (Telecom), MoD, vide letter B/46937/Sigs-7(b)/5058 dated 23.10.2025 has issued their NOC.

4. 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
220/33 kV PSS at Nokh Village, Bap Tehsil, District Phalodi	95.44	44.1	0.5	4799	3142	205	115
Inverter Duty Transformer	6.02	15	0.5	99	63	0	NA

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.