

NORTHERN REGIONAL POWER COMMITTEE

ADDITIONAL AGENDA - II

FOR

40th MEETING OF TECHNICAL COORDINATION SUB-COMMITTEE

&

43rd MEETING OF NORTHERN REGIONAL POWER COMMITTEE

B. OPERATIONAL ISSUES

B.33 Certification of Non-ISTS line for inclusion in PoC Charges

Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) (Third Amendment) Regulations, 2015 provides as under:

“Certification of non-ISTS lines carrying inter-State power, which were not approved by the RPCs on the date of notification of the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2009, shall be done on the basis of load flow studies. For this purpose, STU shall put up proposal to the respective RPC Secretariat for approval. RPC Secretariat, in consultation with RLDC, using WebNet Software would examine the proposal. The results of the load flow studies and participation factor indicating flow of Inter State power on these lines shall be used to compute the percentage of usage of these lines as inter State transmission. The software in the considered scenario will give percentage of usage of these lines by home State and other than home State. For testing the usage, tariff of similar ISTS line may be used. The tariff of the line will also be allocated by software to the home State and other than home State. Based on percentage usage of ISTS in base case, RPC will approve whether the particular State line is being used as ISTS or not. Concerned STU will submit asset-wise tariff. If asset wise tariff is not available, STU will file petition before the Commission for approval of tariff of such lines. The tariff in respect of these lines shall be computed based on Approved ARR and it shall be allocated to lines of different voltage levels and configurations on the basis of methodology which is being done for ISTS lines.”

Based on the methodology suggested by a group formulated based on the decision of 31st TCC and 35th NRPC meeting for carrying out the certification of the non-ISTS lines carrying inter-State power, the study was carried out for certification of non-ISTS lines submitted by HP, Rajasthan, Uttarakhand and Punjab for FY 2018-19.

The transmission lines, which fulfil the criteria recommended by the group and are recommended for certification as ISTS for the current Financial Year (2018-19) by NRPC Secretariat are listed below:

S. No.	Name of Transmission Line	Owner STU
1.	400kV S/C Jodhpur - Merta Line – I	RVPN
2.	400kV S/C Jodhpur - Merta Line – II	RVPN
3.	400kV S/C Merta - Ratangarh Line	RVPN
4.	400kV S/C Merta - Heerapura Line	RVPN
5.	400 kV D/C Chhitorgarh-Bhilwara line	RVPN
6.	400 kV D/C Bhilwara-Ajmer line	RVPN

The complete list of transmission lines submitted by STU can be sub-divided in following categories:

- i. Transmission lines, which fulfil the criteria recommended by the Group and hence are recommended to be certified as ISTS.
- ii. Transmission lines, which do not fulfil the criteria recommended by the Group and hence may not be certified as ISTS.
- iii. The lines, which were claimed to be used for inter-state transmission by STUs but were not modelled in the PoC transmission charge calculation and hence exercise to see whether or not these lines carry inter-state power could not be carried out. It may be mentioned that the responsibility to submit the requisite details for modelling the lines in PoC transmission charge study rests with STU concerned.
- iv. The transmission lines are, which are natural inter-state lines and hence need not be certified as ISTS.

The complete category wise list of transmission lines submitted by STUs is enclosed at ***Annexure B.33.1***

Fresh claims for certification of non-ISTS lines being used for inter-state power for the FY 2019-20 shall be submitted by **end of December 2018**.

TCC/NRPC may approve proposal to certify the transmission lines in table above.

D. ITEMS FOR NRPC

D.10 NICNET (National Informatics Centre) connectivity at NRPC Secretariat

- D.10.1 NIC is providing network backbone and e-Governance support to Central Government, State Governments, UT Administrations, Districts and other Government bodies. It offers a wide range of services including Nationwide Communication Network for decentralised planning, improvement in Government services and wider transparency of national and local Governments.
- D.10.2 Under the Mission Mode Project (MMP) of the National e-Governance Programme e-Office is developed by NIC which aims to usher in more efficient, effective and transparent inter-government and intra-government transactions and processes. The project is already implemented in CEA and same is proposed to be implemented at NRPC Secretariat.
- D.10.3 The NIC internet connectivity is needed for implementation of e-Office at NRPC Secretariat. Video Conferencing services can also be availed over the NICNET which is state of the art technology with high quality- high speed service.
- D.10.4 NIC also provides security for NICNET and its client systems, the data centres, their servers and applications by implementing security solutions using network firewalls, Intrusion Prevention Systems, URL filtering, Patch Management, Anti-virus Solutions, Web Application Firewall solutions and host-based security solutions.
- D.10.5 Hence, it is proposed to install NICNET service at NRPC secretariat with all necessary equipment. The estimated capital cost expenditure for the complete installation is 45-50 lakhs without any recurring charges in the future. The same may be met from NRPC fund.

Members may kindly deliberate.

Annexure B.33.1**1. Transmission Lines which are recommended to be certified as ISTS**

S. No.	Name of Transmission Line	Owner STU	Average % Utilization (of 2nd and 4th Qtr of 2017-18) by states other than the home state of owner STU
1.	400kV S/C Jodhpur - Merta Line – I	RVPN	52.65
2.	400kV S/C Jodhpur - Merta Line – II	RVPN	52.65
3.	400kV S/C Merta - Ratangarh Line	RVPN	55.65
4.	400kV S/C Merta - Heerapura Line	RVPN	63.15
5.	400 kV D/C Chhitorgarh-Bhilwara line	RVPN	63.45
6.	400 kV D/C Bhilwara-Ajmer line	RVPN	63.45

2. Transmission Lines which do not fulfil the criteria (as finalized by the Group) to be certified as ISTS

S. No.	Name of Transmission Line	Owner STU	Average % Utilization (of 2nd and 4th Qtr of 2017-18) by states other than the home state of owner STU
1.	220 kV Patlikul-Phozal	HPPTCL	36.55
2.	220 kV AD Hydro-Patlikul	HPPTCL	36.55
3.	220 kV S/C Anta- Kota line	RVPN	37.4
4.	220 kV RAPP(B)- Kota	RVPN	18.15
5.	220 kV RAPP(B)- RAPP(A)	RVPN	11.05
6.	220 kV D/C RAPP(A)- Sakatpura Line	RVPN	18.7

7.	220 kV S/C RAPP(A)- Debari Line	RVPN	13.75
8.	220 kV S/C Anta GTPS- Dahra line	RVPN	21.25
9.	220 kV Dahra- Kota line	RVPN	19.75
10.	132 kV S/C Swaimadhpur- Khandar line	RVPN	1
11.	220kV D/C Ratangarh(400kV)- Ratangarh(220kV) line	RVPN	33.8
12.	132kV S/C Ratangarh(220kV)- Ratangarh(132kV) line	RVPN	31.35
13.	132kV S/C Ratangarh(132kV)- Churu line	RVPN	44.2
14.	132kV S/C Churu- Sadulpur(Rajagarh line	RVPN	8.2
15.	220KV D/C Aau-Baithwasia line	RVPN	19.2
16.	220KV D/C Baithwasia-Bhawad line	RVPN	18.5
17.	220KV D/C Badisid-Aau line	RVPN	16.45
18.	220kV S/C Bhadla - Bap Line	RVPN	37.8
19.	220KV S/C Phalodi -Bap line	RVPN	40.75
20.	220KV S/C Bap-Badisid line	RVPN	9.2
21.	132 KV S/C Bap-Phalodi line	RVPN	15.05
22.	220KV S/C Bap-Barsingsar line	RVPN	32
23.	220 kV S/C Barsingsar -Bikaner line	RVPN	38
24.	220 kV S/C Barsingsar -Nagaur line	RVPN	5.1
25.	220 KV S/C Nagaur - Nokha line	RVPN	30.75
26.	220 KV S/C Nagaur- Kuchera line	RVPN	35.3
27.	220 KV S/C Kuchera-Merta line	RVPN	21.85
28.	220 KV S/C Nokha-Bikaner line	RVPN	17.25

29.	220kV S/C Bhadla - Badisid Line	RVPN	30.2
30.	220 KV D/C Jodhpur (400 KV GSS) -Bhawad line	RVPN	27.9
31.	220 KV D/C Bhawad -Bhopalgarh line	RVPN	26.1
32.	220 KV S/C Bhopalgarh-Merta line	RVPN	13.85
33.	220 KV S/C Bhopalgarh-Kheenvsar line	RVPN	25.3
34.	220 kV S/C Jodhpur-Pali line	RVPN	6.85
35.	220 kV S/C Jodhpur-Bilara line	RVPN	15.95
36.	220KV S/C Dechu-Tinwari line	RVPN	12.4
37.	220KV D/C Dechu-Phalodi line	RVPN	27
38.	220KV S/C Phalodi -Tinwari line	RVPN	19.85
39.	132 kV S/C Dechu(220 kV GSS)-Dechu(132 kV GSS) line circuit-I	RVPN	4.6
40.	132 kV S/C Dechu(220 kV GSS)-Dechu(132 kV GSS) line circuit-II	RVPN	4.6
41.	132 kV S/C Dechu(132 kV GSS)-Balesar line	RVPN	5.6
42.	132 kV S/C Dechu(132 kV GSS)-Chamu line	RVPN	5.45
43.	132 kV S/C Balesar-Tinwari line	RVPN	6.75
44.	132 kV S/C Chamu-Tinwari line	RVPN	6.6
45.	132 kV S/C Dechu-Phalodi line	RVPN	17.8
46.	132 KV S/C Dechu-Kalau line	RVPN	1
47.	132 kV S/C Dechu-Setrawa line	RVPN	1
48.	220KV S/C Tinwari-Jodhpur (400KV GSS) line (Circuit-I)	RVPN	21
49.	220KV S/C Tinwari-Jodhpur (400KV GSS) line (Circuit-II)	RVPN	21

50.	220 KV D/C Gajner-Bikaner line	RVPN	2
51.	132 KV S/C Gajner-Pugal Road line	RVPN	7
52.	132KV S/C Pugal Road -Bikaner line	RVPN	3.3
53.	132 KV S/C Gajner-Bhinasar line	RVPN	6.9
54.	132 KV S/C Bhinasar -Bikaner line	RVPN	3.45
55.	220 KV D/C Kanasar-Bhadla line	RVPN	11.25
56.	132 KV S/C Pokaran-Dechu line	RVPN	14.45
57.	132 KV S/C Pokaran-Chandan line	RVPN	13
58.	132 KV S/C PS(2) - PS(1) line	RVPN	17.3
59.	132 KV S/C PS(1)- Bajju line	RVPN	18.6
60.	132 KV S/C Bajju-Kolayat line	RVPN	16.5
61.	132 KV S/C PS(2)-PS(3) line	RVPN	19.3
62.	132 kV S/C PS(2)-Kanasar line	RVPN	12.9
63.	132 KV S/C PS3 - PS4 line	RVPN	25.3
64.	132 KV S/C PS4 -PS5 line	RVPN	25.15
65.	132 KV S/C PS5-220kV GSS Phalodi line	RVPN	26.1
66.	132 kV S/C Phalodi-SS Nagar line	RVPN	3.8
67.	132 kV D/C PS(3)-Kanasar line	RVPN	21.25
68.	132 KV S/C Sanwreej- Dechu line	RVPN	1
69.	132 KV S/C Osian -Tinwari line	RVPN	7.6
70.	132 KV D/C Osian-Baithwasia line	RVPN	8.55
71.	132 KV S/C Khetusar-Bhadla line	RVPN	1
72.	132 KV S/C Kolayat -Gajner line	RVPN	9.45

73.	132 KV S/C Jayal-Nagaur line	RVPN	1
74.	132 KV S/C Gajner(Nokha Daiya)-Gajner(220 KV GSS) line	RVPN	5.3
75.	400 kV D/C Bhadla- Bikaner line (Quad Moose)	RVPN	31.25
76.	220 KV D/C Bikaner(220kV)-Bikaner (400kV) line	RVPN	17.6
77.	400 kV D/C Bikaner-Sikar (PG) line	RVPN	40.7
78.	400 kV S/C Bikaner-Deedwana line	RVPN	32.15
79.	400 kV S/C Deedwana-Ajmer line	RVPN	32.25
80.	400 kV D/C Phagi-Ajmer line	RVPN	45.95
81.	400 kV D/C Phagi-Heerapura line	RVPN	28.7
82.	765 kV S/C Anta-Phagi line (Ckt-I)	RVPN	28.25
83.	765 kV S/C Anta-Phagi line (Ckt-II)	RVPN	28.25
84.	220kV S/C Bhiwadi (PG) - Bhiwadi (RVPN) Line (Ckt-I)	RVPN	1.5
85.	220kV S/C Bhiwadi (PG) - Bhiwadi (RVPN) Line (Ckt-II)	RVPN	1.5
86.	220kV S/C Bhiwadi (PG)-Khushkhera Line – I	RVPN	15.2
87.	220kV S/C Bhiwadi (PG) - Neemrana Line	RVPN	47.75
88.	Kalagarh-Ram Nagar Line	PTCUL	12.85
89.	Jaspur-Kalagarh Line	PTCUL	11.85
90.	Kichha-Richha Line	PTCUL	16.55
91.	220KV Ganguwal- Mohali-1	PSTCL	5.65
92.	132KV Kotla-Ropar Ckt 1 No. Bay	PSTCL	15.45

3. Transmission Lines which were not modelled by STU for PoC charge calculation and hence could not be considered for study

S. No.	Name of Transmission Line	Owner STU
1.	132 KV S/C Dechu-Natharau line	RVPN
2.	132 KV S/C Dechu-Rajmathai line	RVPN
3.	132 kV S/C Phalodi-Bengati kalan line	RVPN
4.	132kV S/C Nokha Daiya-Khajuwala line (U/C line to be comm. by FY 2017-18)	RVPN

4. Transmission Lines which are natural interstate lines and hence need not be certified as ISTS

S. No.	Name of Transmission Line	Owner STU
1.	220kV S/C MIA(Alwar)-Badarpur line	RVPN
2.	220kV S/C Agra–Bharatpur line (Raj-UP)	RVPN
3.	220kV S/C Kota (Sakatpura)- Badod (Rajasthan-MP)	RVPN
4.	220 kV S/C Modak-Badod (Raj.-MP)	RVPN
5.	220kV S/C Khetri- Dadri line-1 (Raj.-Haryana)	RVPN
6.	220kV S/C Khetri- Dadri line-II(Raj-Haryana)	RVPN
7.	220kV S/C Chirawa- Hissar line	RVPN
8.	132kV S/C Sadulpur(Rajagarh) -Hissar line	RVPN
9.	132 kV S/C Sheopur - Khandar line	RVPN
10.	132 kV S/C Amrapura- Sirsa line	RVPN
11.	Rooke-Saharanpur Line (1 ckt)	PTCUL
12.	Bhagwanpur-Sahranpur Line (Pilikhni)	PTCUL
13.	Kotdwar-Nazibabad Line	PTCUL
14.	Chilla-Nazibabad Line	PTCUL
15.	Nehtaur-Rishikesh Line (Rishikesh to LILO)	PTCUL

	point at location no.233)	
16.	Kashipur-Nehtaur Line (Kashipur to LILO point at location no.233)	PTCUL
17.	Mahuakheraganj-Thakurdwara Line	PTCUL
18.	Pilibhit-Sitarganj Line	PTCUL
19.	Pilibhit-Khatima Line	PTCUL
20.	66KV Chandigarh-1	PSTCL
21.	66KV Chandigarh-2	PSTCL
22.	66KV Chandigarh-3	PSTCL
23.	66KV Chandigarh-4	PSTCL
24.	132 KV Roper - Pinjore Ckt2 No. Bays	PSTCL
25.	220KV Sarna - Udhampur	PSTCL
26.	132 KV HPSEB Tap (Kangra-Kangra PS)	PSTCL
27.	66KVPathankot Kathua	PSTCL
28.	Hamirpur-Chohal	PSTCL