

BULK POWER TRANSMISSION AGREEMENT
BETWEEN
POWER GRID CORPORATION OF INDIA LIMITED
AND
POWER DEVELOPMENT DEPARTMENT, GOVT. OF JAMMU & KASHMIR
AND
NORTHERN REGIONAL ELECTRICITY BOARD.

THIS BULK POWER TRANSMISSION AGREEMENT entered into on this 25th day of July Two Thousand Three.

BETWEEN -

POWERGRID CORPORATION OF INDIA LIMITED, a company incorporated under the Companies Act, 1956 having its registered office at B-9, Qutub Institutional Area, Katwaria Sarai, New Delhi - 110 016 (hereinafter called "POWERGRID" which expression shall unless repugnant to the context or meaning thereof include its successors and assigns) as party of the first part.

AND -

Governor of Jammu & Kashmir-Srinagar/Jammu through Power Development Department.

Collectively referred to as "Bulk Power Customers" and individually referred to as "PDD"

AND

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"Northern Regional Electricity Boards", having its Office at 18-A, Shaheed Ji Singh Sansanwal Marg, Katwaria Sarai, New Delhi - 110 016 (hereinafter referred to as "NREB") which expressions shall unless repugnant to the context or meaning therein include its successors and assigns as parties of the Second, Third, Fourth, Fifth, Sixth, Seventh, Eighth, Ninth, Tenth and Eleventh part respectively.

Whereas POWERGRID have been established by Government of India with a view to develop the National Grid to ensure transmission of power within and across the different regions of India on more scientific, efficient and economic basis.

AND WHEREAS POWERGRID entered into an Agreement earlier on 03.12.1999 for transmission of power from Central Sector Stations to the Bulk Power Customers.

AND WHEREAS POWERGRID is desirous to transmit energy from Central Sector Stations to the Bulk Power customers and generating agencies are willing to sell energy for which a separate agreement has been/shall be made between Bulk Power customers and generating agencies and the Bulk Power customers are desirous of receiving energy through POWERGRID transmission system on mutually agreed terms and conditions mentioned hereunder.

NOW, therefore, in consideration of the premises and mutual agreements, covenants and conditions set forth herein and in the General Provisions governing the Agreement as contained in Annexure-A and Annexure-B attached hereto which shall form an integral part of this Agreement, it is hereby agreed by and between the parties as follows:

1.0 DEFINITIONS

The words/expressions used in this Agreement unless repugnant to the context shall have the same meaning as assigned to them by Indian Electricity Act, 1910 and Electricity (Supply) Act, 1948 as amended from time to time the Central Electricity Regulatory Commission Act, 1998 and the Rules framed there-under. The words-expressions mentioned below shall have the meanings respectively as assigned hereunder.

- GOI : Government of India.
- CEA : Central Electricity Authority which is a statutory authority.
- NR : All SEBs/Power Departments in Northern Region as mentioned on Page-1 of the agreement.
- BENEFICIARIES: Bulk Power Customers taking power through POWERGRID transmission system.



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CEPC	:	Central Electricity Regulatory Commission
POWERGRID	:	Power Grid Corporation of India Ltd.
NREB	:	Northern Regional Electricity Board as defined in the E(S) Act, 1948 and subsequent amendments.
NREDC	:	Northern Regional Load Despatch Centre as defined in the E(S) Act, 1948 and subsequent amendments.
Central Sector:		Power Stations of Central Sector Generating Companies whose Stations Energy is shared by the Bulk Power Customers.
Main Meter	:	Conventional and Special Energy meters for energy accounting and billing purposes.
Check Meter	:	Meter for maintaining a check on performance of Main Meter.
Regional	:	Periodic Energy Account including amendments thereof.
LC	:	Irrevocable Revolving Letter(s) of Credit
Date of Commercial Operation	:	The date of commercial operation declared by POWERGRID in line with GOI Notification dated 16.12.97
Transmission Losses	:	Means loss of energy due to its transmission over a particular section of a transmission line and/or its transformation from one Voltage to another.
Month	:	a calendar month (i.e. each of the month from January to December).
MW	:	Megawatt (s)
Scheduled Day:		the period from 0000 Hrs to 2400 HRS of each day.
Electricity Act:		The Indian Electricity Act, 1910 and the Electricity (supply) Act, 1948 and Central Electricity Regulatory Commission Act, 1998 and amendments/supercessions thereof.
KW	:	Kilowatt(s)
KWH	:	Kilowatt-hour(s)

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2.0 TRANSMISSION SYSTEM IN NR

The list of transmission system presently owned, operated and maintained by POWERGRID in Northern Region as on 01.04.2002 is detailed in Annexure-B. The list also incorporates such other lines which are yet to be commissioned and are under execution or to be executed. Further transmission Systems/Lines may be added by POWERGRID during the course of the Agreement as may be approved by Competent Authority and the same shall become part of this Agreement.

3.0 POWERGRID shall operate and maintain the transmission system belonging to it in the Northern Region as per agreed guidelines and the directives of the Northern Regional Electricity Board, and the Regional Load Despatch Centre, and cooperate with all bulk power customers of Region, so as to maintain the system parameters within acceptable/ reasonable limits except where it is necessary to take measures to prevent imminent damage to any equipment.

4.0 While POWERGRID shall endeavor for best possible reliability of power supply to bulk power customers and maintenance of system parameters, however, for occurrences and situations beyond its control, POWERGRID shall not be held responsible.

5.0 For the above services, the bulk power customers shall regularly pay to POWERGRID the monthly transmission charges as per clause 10.0 of this agreement and clause A-4 of General Condition of this Agreement in respect of the POWERGRID owned transmission assets in the Region.

6.0 POWERGRID shall duly inform Bulk Power Customers regarding all changes in transmission system/asset ownership, commissioning and commercial operation commencement of new assets, and any other relevant development changes as also the consequent changes in transmission charges to be paid by Bulk Power Customers as mutually agreed or notified.

7.0 Wheeling Central/State/Private Sector Power through transmission system owned by Bulk Power Customer(s) and/or other agency(ies).

The Bulk Power Customer(s) and other agencies owning transmission system in NR shall extend their full cooperation in wheeling of power from Central/Private Sector Power Station(s) to other Bulk Power Customers through their transmission system(s) subject to technical feasibility. For transmitting Central/State/Private Sector power, the charges, if any, shall be settled amongst concerned Bulk Power Customer(s) and/or other agencies (as applicable) or as per decision of NREB.

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Transmitting/ wheeling Central/State/ private sector power through transmission line owned by POWERGRID and/or Bulk Power Customer(s) to Private Bulk Power Customers.

The applicable transmission charges (if any) shall be payable to POWERGRID by the Private Bulk Power Customer(s) for transmitting Central/State/Private sector power through POWERGRID lines on the pool basis for common existing transmission system, and total transmission charges for lines drawn specifically on this purpose.

The transmission charges shall be payable to POWERGRID by the Bulk Power Customer(s) for transmitting Private Sector Power through POWERGRID lines as per the guidelines of CERC.

9.0 ENERGY ACCOUNTING

Regional Energy Accounts shall be prepared by NREB latest by 6th day of the month (if 6th day is a holiday, the next working day will be applicable) based on the monthly joint Energy Meter readings furnished by Central Sector Generating Companies, POWERGRID, Bulk Power Customers and other agencies, which is to be received by NREB by the 2nd day of the month. In the event of delay in receiving meter readings or GOI orders for power allocation or and other reason whatsoever, NREB shall issue provisional Regional Energy Accounts by 6th day of the month (if 6th day is a holiday, the next working day will be applicable) indicating the Customer-wise drawals from Central Sector Power Stations). The Regional Energy Accounts including amendments, if any, issued by NREB shall form the basis of billing and the binding on all the parties. Any change in the Regional Energy Accounts methodology would be by consensus in NREB. The export and import of energy at the metering points shall be computed on Net basis i.e. by difference between Export and import meter readings.

10.0 TARIFF

The Transmission Tariff and Terms and conditions for the power to be transmitted by POWERGRID from Central Sector Power Station (s) shall be as per Notification issued by CERC from time to time.

Immediately on commissioning of the new transmission system Bulk Power Customer would pay the provisional transmission tariff in line with the tariff norms issued by CERC. The tariff would however, be subject to adjustment on issue of CERC Notification.

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11.0 TARIFF FOR POWER TRANSMISSION FROM OR TO OTHER REGIONS

The transmission charges on drawals against the Central Sector or other energy imported or exported from or to other regions shall be billed as per the detailed terms and conditions of inter-regional transfer of power between the concerned region as per guidelines of CERC issued from time to time.

12.0 ARBITRATION

12.1 All differences or disputes between the parties arising out of or in connection with these presents, save any question or matter of dispute which falls within the scope and purview of the statutory arbitration under the provisions of The Electricity (supply) Act, 1948 as amended, shall be settled through arbitration as provided herein.

12.2 All differences or disputes relating to the Inter-State transmission of energy and the tariff as provided in Clauses (a), (b) and (c) of Section 13 of the Electricity Regulatory Commission Act, 1998 shall be decided by CERC on the application of any of the parties herein, in terms of chapter III of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999. The cost of arbitration and proceedings before the Commission shall be borne by such parties and in such sums as the Commission may direct.

12.3. All differences or disputes between the parties which are not specifically covered under Clause 13.1 and Clause 13.2 above shall be settled through mutual discussion amongst parties concerned and/or at NREB forum. If the disputes are not settled at NREB forum within 3 months, any party may by a written notice to the other party or parties request for appointment of sole Arbitrator to be mutually decided by the parties within 30 days of receipt of such notice and in case of disagreement, to be decided by Chairman, CEA/CERC. In the event Chairman, CEA/CERC fails to nominate the Sole Arbitrator, the same shall be appointed in accordance with the Arbitration and Conciliation Act 1996. The Arbitration shall be conducted in accordance with the provisions of Arbitration and Conciliation Act 1996 and any statutory modifications thereto. The Arbitrator shall give a speaking and reasoned Award. The fee of the Arbitrator and cost of arbitration proceedings shall be equally borne by the parties. The venue of the Arbitrator shall be at New Delhi.

12.4 Notwithstanding the existence of any disputes and differences referred to arbitration, the parties hereto shall continue to perform their respective obligations under this Agreement.



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EFFECTIVE DATE AND DURATION OF AGREEMENT

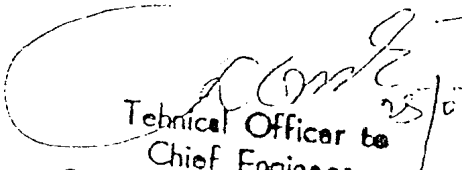
Without prejudice to clause 10.0 of this Agreement, the Agreement shall be deemed to have come into force with effect from 1.4.2002 for all purposes and intents and shall remain operative for a period of 15 years i.e. up to 31st March, 2017 subject to revision provided that this Agreement may be mutually extended, renewed or replaced by another Agreement on such terms and for such further period as the parties may mutually agree. In case Bulk Power Customers(s) continue to get transmission services from the POWERGRID even after expiry of this Agreement without further renewal or formal extension thereof, then all the provisions of this Agreement shall continue to operate till this Agreement is formally renewed, extended or replaced. POWERGRID will initiate action for new Agreement 6 months before the expiry of this Agreement.

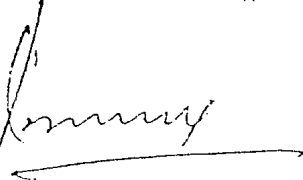
IN WITNESS WHEREOF the parties have executed these presents through their duly Authorised Representatives.

WITNESS

Mithal Shah
25/07/03
MITHAL SHA KHAN
D.O.M. (Contract)


R P Choudhary 25/7/03
General Manager
Power Grid Corporation of India Ltd.
Northern Region, Jammu J&K
For and on behalf of
Power Grid Corporation of India Ltd


25/07/03
Technical Officer to
Chief Engineer
Commercial & Survey Wing
J&K-P.D.D.-Jammu

For and on behalf of
Governor, Jammu & Kashmir

Chief Engineer
Commercial & Survey Wing
J&K-P.D.D.-Jammu
For and on behalf of
Northern Regional Electricity Board

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13.0 FORCE MAJEURE

The parties shall ensure due compliance with the terms of this Agreement. However, no party shall be liable for any claim for any loss or damage whatsoever arising out of failure to carry out the terms of the Agreement to the extent that such a failure is due to force majeure events such as fire, rebellion, mutiny, civil commotion, riot, strike, lock-out, forces of nature, accident, act of God and any other reason beyond the control of concerned party. But any party claiming the benefit of this clause shall satisfy the other party of the existence of such an event and give written notice within a reasonable time to the other party to this effect. Transmission/drawal of power shall be started as soon as practicable by the parties concerned after such eventuality has come to an end or ceased to exist.

14.0 IMPLEMENTATION OF THE AGREEMENT

All discretions to be exercised and directions, approvals, consents and notices to be given and actions to be taken under these presents, unless otherwise expressly provided herein, shall be exercised and given by the signatories to this Agreement or by the authorised representative(s) that each party may nominate in this behalf and notify in writing to the other party by Registered Post. Any other nomination of authorised representative(s) and/ or changes in designation shall be informed likewise in writing to/by the Bulk Power Beneficiaries within one month of signing of the Agreement. Notwithstanding any nomination, the Executive Director (NR-II), POWERGRID or his authorised representative shall be authorised to act for and on behalf of POWERGRID. Any changes in designations/ registered office address shall be intimated in writing to all concerned parties.

The Arbitration Clause 12.3 makes a mention of Arbitration Act, 1996 which may be read as Arbitration Act of 1940 of J&K and any statutory modifications thereto so far as state of J&K as a party to the agreement is concerned. The venue of the Arbitration shall be as decided by the Arbitrator. However, meeting can be held elsewhere as decided by the Arbitrator with the consent of the parties.

15.0 NOTICE

All notices required or referred to under this Agreement, shall be in writing and signed by the respective authorised signatories of the parties mentioned herein above, unless other-wise notified. Each such notice shall be deemed to have been duly given if delivered or served by registered mail, speed post of Department of Posts or by Courier service with an acknowledgement due to the other parties in terms of Clause 14 above.





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GENERAL PROVISIONS GOVERNING THE AGREEMENT

A.1 INTEGRAL PART

Annexure-A and Annexure-B shall be an integral part of the Bulk Power Transmission Agreement (called the Agreement). If any of the general provisions of Annexure-A and Annexure-B are repugnant to a corresponding specific provision of the Agreement then the latter shall prevail to the extent of repugnancy.

A.2 METERING

(i) Special Energy Meters (SEMs) shall be installed and commissioned at locations identified as per the guidelines provided by the Central Electricity Authority. The responsibility for down loading and onward transmission of the metered data of the SEMs from the pre identified locations shall be as per the provisions of the Indian Electricity Grid Code (December'99), as amended from time to time, and shall comply with any other directions issued by CERC, on the subject, from time to time.

(ii) The periodicity for testing of the accuracy of the SEMs shall be as provided in the Indian Electricity Grid Code.

(iii) Till such time the SEMs are put in use for all commercial purposes the following arrangement presently in vogue would continue:

a) POWERGRID shall provide and maintain Main & Check meters on all line termination/transformer bay(s) owned by POWERGRID as per location decided in NREB forum for measurement of energy export and import. The meters can also have additional facility for recording energy transmittals linked to time-of-day, frequency etc. in pre-fixed durations of 15 minutes/30 minutes time blocks, and for recording reactive energy in separate registers for low/high voltage conditions. The meters shall be of 0.5 accuracy class or better. Such meters provided by POWERGRID at locations for energy accounting and billing purposes shall be referred to as Main meter(s). At each such location POWERGRID may provide and maintain another set of energy meter(s) of accuracy class 0.5 or better which shall be referred to as check meter(s).

b) The locations which are to be considered for energy accounting and billing purposes shall be as decided at NREB forum.

c) Joint meter readings of the main as well as check meters (wherever installed) at POWERGRID owned substations for the various Regional Energy Accounting points as identified by NREB shall be taken by POWERGRID and the concerned SEB at 12 noon on the 1st day of each month. In case of any of the concerned parties is not available for joint meter readings at the specified



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100% the meter reading taken by the other party(ies)/POWERGRID shall be submitted to NREB for preparation of Regional Energy Accounting. The readings taken at POWERGRID owned substation(s) shall be submitted by POWERGRID authorised representative to NREB so as to reach NREB on or before 2nd day of the month.

- d) The main and check meters shall be jointly inspected and sealed by POWERGRID and concerned SEB and shall not be interfered with by either party except in the presence of the other party or its authorised representative.
- e) The main and check meters shall be test checked for accuracy by on-line test check at least once every year by the concerned parties. The meters shall be deemed to be working satisfactorily if the error are within the limit of errors specified in BIS/BS/IEC.
- f) If the energy computed from the main meter(s) in any month differs from the readings of the concerned check meter(s) by more than 1.0%, both the meters shall be tested as per A.2.(iii)(e). If on such testing the main meter error is found to exceed $\pm 0.5\%$, the energy figures recorded by the main meters for the month(s) concerned shall be revised accordingly, and the main meters shall be recalibrated or replaced by correct meters. Pending results of such testing, energy accounting shall continue to be based on the energy recorded by the check meters.
- g) During the period of calibration for which a meter needs to be removed from its location, another such duly calibrated meter would be installed by the concerned party in the presence of both parties and jointly sealed.
- h) If at any time there is a doubt that a meter is not recording correctly, the concerned party shall inform the same to the owner of the meter for joint-testing.
- i) The authorised representative(s) of concerned SEB can have access to POWERGRID owned substations to inspect the energy metering system and POWERGRID shall co-operate with SEB for maintenance of meters in the best possible way.
- j) Metering system, calibration procedure and the procedure of taking the meter readings could be modified from time to time as may be decided by the CERC/NREB.

A.3 LOSSES IN TRANSMISSION SYSTEM

Regional Energy Accounts so prepared by NREB will ensure total accounting of energy sent out at 400 KV/220 KV bus-bars at Central Sector Power Stations.

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The losses in Transmission System beyond 400 KV/220 KV bus-bars of Central Sector Power Station(s) would be shared as per the methodology decided by NREB, and/or in line with the guideline issued by CERC from time to time.

A.4 BILLING AND PAYMENT

- a) POWERGRID shall present a bill for energy transmitted to Bulk Power Customers as per Regional Energy Accounts described in clause 9.0 of the Agreement. If NREB gives provisional account in the first instance, POWERGRID shall raise the bill on such provisional account and Bulk Power customer(s) shall pay the same as provided hereunder. In the event of any revision in energy account, POWERGRID shall adjust the difference between the energy already billed and the revised figure of energy transmitted or supplementary bill in case of increase in the quantum of energy transmitted through a credit note in case of reduction in the quantum of energy transmitted within 15 days of receipt of final regional energy account.
- b) Billing Centres of POWERGRID shall carry out billing and associated functions and would submit the bills to the nominated authority of the Bulk Power Customers.
- c) The monthly bill of POWERGRID shall be aggregate of charges in accordance with the provisions of the Agreement. If for certain reasons some of the charges cannot be included in the monthly main bills, such charges shall be billed as soon as possible through supplementary bill(s).
- d) The bills of POWERGRID shall be paid in full subject to the condition that
 - i) there are no apparent errors in the bill(s) and
 - ii) the bill(s) is/are claimed as per the agreed tariff and as per the Notification(s) of the Government of India/CERC and
 - iii) regional energy accounts referred to in clause 9.0
- e) In disputed case Bulk Power Customers shall file a written objection with POWERGRID as soon as possible preferably within 45 (forty five) days of presentation of the bill, giving following particulars:
 - i) Items disputed, with full details/data and reasons of dispute, and
 - ii) Amount disputed against each item.

POWERGRID shall resolve the above dispute(s) with the concerned Bulk Power Customer(s) as soon as possible but within 45 (forty five) days.

There will be no surcharge applicable on the disputed amount of bills. However, all notified tariff and provisional tariff shall be treated as undisputed.

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A.5 ESTABLISHMENT OF LC AND PAYMENT OF BILLS:

Irrevocable revolving LC in favour of POWERGRID equivalent to 105% of estimated monthly billing shall be opened by Bulk Power Customers.

A.6 NON-PAYMENT OF BILLS AND NON-ESTABLISHMENT OF LC

It is agreed that the Bulk Power Customers will make all efforts to open LC within a reasonable period. In the event of failure to establish/enhance LC within reasonable period or alternatively in the absence of LC if any bill remains unpaid for a period exceeding two months from the date of issue of the bill, POWERGRID shall have the option to discontinue/ regulate transmission of power to such Bulk Power customers in consultation with Government of India and advise NREB accordingly.

A.7 POWERGRID, Central Generating Companies and Bulk Power Customers will make all efforts to maintain the system parameters at their nominal values.



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TRANSMISSION SYSTEM IN NORTHERN REGION

I. LINES/SYSTEM UNDER OPERATION

SINGRAULI TRANSMISSION LINE:

- SINGRAULI - OBRA (ANPARA)
- SINGRAULI - KANPUR I & II
- SINGRAULI - LUCKNOW
- LUCKNOW - MURADABAD
- MURADABAD - MURADNAGAR
- MURADABAD - DADRI
- DADRI - PANIPAT
- KANPUR - AGRA
- AGRA - BASSI
- KANPUR - PANKI I & II

RIHAND TRANSMISSION LINE

- RIHAND - SINGRAULI I & II
- VINDHYACHAL - KANPUR
- KANPUR - BALLABHGARH
- BALLABHGARH - JAIPUR
- BALLABHGARH - DADRI I & II
- DADRI - MANDOLA I & II
- DADRI - MALERKOTLA
- BASSI - HERERAPURA I & II

- RIHAND - DADRI - POLE-I (HVDC)
- RIHAND - DADRI - POLE-II (HVDC)

ANTA TRANSMISSION LINES

- ANTA - BHILWARA I & II
- ANTA - DAUSA - BASSI - JAIPUR I & II

AURAIYA TRANSMISSION LINES:

- AURAIYA - AGRA (SIKANDRA) I & II
- AURAIYA - AGRA I & II
- AGRA - BALLABHGARH





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VINDHYACHAL TRANSMISSION LINES

SINGRAULI-VINDHYACHAL (WITH HVDC BACK TO BACK INTER CONNECTION)

TANAKPUR TRANSMISSION LINES:

TANAKPUR-BAREILLY I & II

BAIRASIUL TRANSMISSION LINES

BAIRASIUL-PONG
BAIRASIUL-JESSPRE-PONG

SALAL -I TRANSMISSION LINES

SALAL-JAMMU CKT-I
JAMMU-SARNA
SALAL-KISHENPUR CKT I & II
KISHENPUR-UDHAMPUR CKT I & II
SARNA-DASUA

SALAL -II TRANSMISSION LINES

SARNA-DASUA 2ND CKT
SALAL-JAMMU 2ND CKT
KISHENPUR-SARNA I & II
SALAL-KISHENPUR III & IV

CHAMERA-I TRANSMISSION LINES

CHAMERA-MOGA I & II (INCLUDING LILO AT JALLANDHAR)
MOGA-HISSAR I & II
HISSAR-BHIWANI
RHAND-KANPUR LILO
HISSAR-HISEB


URI TRANSMISSION LINES

URI-WAGOORA I & II
WAGOORA-PAMPORE I & II

OTHER LINES/SYSTEMS

KISHENPUR-MOGA
BAWANA - HISSAR
HISSAR-BASSI




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CHAMERA-KISHANPUR & ICT AT KISHANPUR
50 MVAR BUS REACTOR AT AGRA
JALLANDHAR - HAMIRPUR
CONVERTOR TRANSFORMER AT RIHAND-DADRI

FEROZGANDHI UNCHAHAR TRANSMISSION LINE-II

KANPUR-UNCHAHAR I & II
KANPUR-UNCHAHAR III & IV

NATHPA-JHAKRI TRANSMISSION LINES

JALLANDHAR-DASUA
BAWANA-BHIWANI
ABDULLAPUR-BAWANA
NALAGARH-HISSAR

DULHASTI-TRANSMISSION LINES

DULHASTI-KISHENPUR
KISHENPUR-WAGOORA

RAPP-B

RAPP-CHITTOGARH
RAPP-UDAIPUR
RAPP-ANTA

NR-STRENGTHENING:

S/STN. AT ALLAHABAD BY LILO OF SINGRAULI-KANPUR
SERIES COMPENSATORS AT PAMPORE KISHENPUR
SERIES COMPENSATORS AT PANKI-MURADNAGAR
ICT AT BALLABHGARH

FBD.GAS T/L-I

220 KV D/C FARIDABAD GPP-SAMAYPUR LINE
220 KV D/C FARIDABAD GPP-PALLA LINE

SASARAM HVDC TRANSMISSION SYSTEM

1X500MW HVDC BACK TO BACK STATION AT SASARAM IN ER
400 KV AC(D/C) LINE FROM BIHARSHARIFF (ER) TO SASARAM(ER)





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400 KV AC(D.C) LINE FROM ALLAHABAD (NR) TO SASARAM (NR)
EXTENSION OF SUBSTATION AT ALLAHABAD(POWERGRID) AND
BIHARSHARIFF (POWERGRID)

LINES/SYSTEM UNDER CONSTRUCTION/TO BE CONSTRUCTED

DHAULIGANGA TL

DHAULIGANGA-BAREILLY 400 KV, D/C TRANSMISSION LINE (TO BE
INITIALLY OPERATED AT 220 KV)
BAREILLY SUB-STATION EXTENSION (UPSEB)
TWO NOS. REACTORS AT DHAULIGANGA SWITCH YARD (NHPC)

AURAIYA-II

LILO OF KANPUR-AGRA 400KV S/C LINE AT AURAIYA
AGRA-BHIWADI 400 KV S/C LINE

ANTA-II

ANTA-II TO NEW S/S NEAR BEAWAR 400 KV D/C LINE
NEW 2X315 MVA 400/220 KV S/S NEAR BEAWAR

RIHAND-II

RIHAND-ALLAHABAD-MAINPURI-BALLABHIGARH 400 KV D/C
DADRI-PANIPAT 400 KV S/C
PATIALA-MALERKOTLA 400 KV S/C
LILO OF ONE CKT OF NALAGARH-HISSAR 400 KV D/C AT PATIALA
LILO OF ONE CKT OF NALAGARH-HISSAR 400 KV D/C AT KATEMAL
ESTABLISHMENT OF NEW SUB-STATIONS AT MAINPUR, KATEMAL &
PATIALA ALONGWITH 400/220 KV, 2X315 MVA AUTOTRANSFORMERS
AT EACH LOCATION
1X315 MVA TRANSFORMER AT ABDULLAPUR

CHAMERA-II

LILO OF CHAMERA-I-KISHENPUR 400 KV LINE AT CHAMERA II

DADRI-II

DADRI-MALERKOTLA S/C LINE

OTHER LINES/SYSTEM

ESTABLISHMENT OF 220 KV KICHCHA S/STN. ALONGWITH



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LHO OF ONE CKT OF TANAKPUR-BAREILLY 220 KV D/C LINE
TWO NOS. 220/132 KV ICTs

ESTABLISHMENT OF PITHORAGARH 220 KV SUB-STATION BY LHO
OF DHAULIGANGA-BAREILLY 400 KV D/C LINE
TWO NOS. 220/132 KV ICTs.

AGRA (POWERGRID)-AGRA (UPPCL) D/C LINE.

TEHRI T/L

TEHRI-MEERUT CKT-I & CKT-II
MEERUT-MANDOLA LINE INCLUDING MEERUT SUB-STATION.



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