

## Annual Report 2003-2004

## ANNUAL REPORT 2003-04



#### CENTRAL ELECTRICITY REGULATORY COMMISSION

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#### Foreword

Dear Stakeholders,

In the history of Indian electricity sector, the year 2003-04 would undoubtedly be remembered as the year in which the new Electricity Act was enacted by the Parliament. The Act has created an enabling environment to promote investment and also protect consumer interest. It emphasizes the role of competition and market development, obviously because no amount of cost plus regulations can achieve what competition can, in reducing the price of electricity and ensuring good quality power.

The Central Electricity Regulatory Commission, as the principal regulator, had its task cut out to implement the various far-reaching provisions of the Act. The Commission moved swiftly and came out with the concept paper on Open Access in Inter-State Transmission, and draft regulations for grant of Licence for Inter-State Trading, as required by the new Act. We were able to issue our final Regulations on both these subjects, thereafter. In addition, the Commission had to process a load of tariff petitions after vacation of stay orders by the various courts. The Commission had to hold marathon hearings and do bunching of petitions to clear the backlog.

Another challenge before the Commission was to prepare the Terms and Conditions of Tariff for the tariff period commencing from 1<sup>st</sup> April, 2004, since the earlier tariff period was coming to an end on 31<sup>st</sup> March, 2004. The process of preparing new tariff regulations was also initiated with a discussion paper, invitation of comments, public hearings, draft regulations and so on. It is a matter of satisfaction that we not only notified the new tariff regulations in time but also did considerable research and innovative work while finalising the new terms and conditions. In the new tariff regulations for the period 2004-09, we have moved from intrusive regulations based on cost plus actuals to light handed regulations, based on normative parameters for both financial as well as technical norms of



operation and performance. The new norms have resulted in reduction in prices of bulk electricity, providing much needed relief to the bulk buyers and State Regulators who in turn have to fix the retail consumer tariffs. In order to ensure greater regulatory certainty, we have notified the regulations for a five-year period, as against three years earlier.

As you are aware, the Act requires us to advise the Central Government on various policy matters, including National Electricity Policy and Tariff Policy. The Commission has duly conveyed its statutory advice to the Government on these issues.

All our Orders and Regulations are available on the Commission's web site: www.cercind.org.

Our future agenda includes introduction of competition in the sector, issue of fresh regulations on transmission licencing, development of electricity market including prevention of market domination, introduction of power exchange, and several other issues.

It was a year of tough challenges demanding sustained effort, endeavour, initiative and team work. I am happy that we were able to measure up to the expectations of the stakeholders. All this was possible with the relentless efforts of the Members, Officers and Staff of the Commission, and active cooperation and participation of all stakeholders including the Members of the Central Advisory Committee, State Commissions, State Governments, State Electricity Boards, Independent Power Producers and NonGovernment Organizations.

Let us continue to work together to carry the Power Sector forward.

(Ashok Basu) Chairperson



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#### THE COMMISSION

he institution of Electricity Regulatory Commissions in India owes its genesis to the Electricity Regulatory Commissions (ERC) Act, 1998. The 1998 Act was enacted with the objective of distancing Government from the tariff regulation. The Act provided for Electricity Regulatory Commissions at the Center and in the States for rationalization of electricity tariff, transparent policies regarding subsidies etc. Under the provisions of this Act, the Central Government constituted the Central Electricity Regulatory Commission (CERC) in July, 1998. The ERC Act, 1998 has since been replaced by the Electricity Act, 2003. The CERC created under the provisions of the ERC Act, 1998 has been recognized as the Central Electricity Regulatory Commission under the Electricity Act, 2003.

The Commission functions in a quasi-judicial manner. It has the powers of civil courts. It consists of a Chairperson, three full time Members and the Chairperson of the Central Electricity Authority (CEA) as Ex-officio Member. In recognition of the need for a multi-disciplinary approach while addressing issues related to independent regulation, the Act prescribes that the Chairman and Members shall be persons having adequate knowledge and



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experience in engineering, law, economics, commerce, finance or management. It also prescribes a broad mix of disciplines to be represented in the Commission. The Chairperson and Members are appointed by the President of India on the recommendation of a selection committee constituted by the Central Government as prescribed under the Act. The Act also provides for the appointment of a Secretary of the Commission whose powers and duties are defined by the Commission.

The Electricity Act, 2003 has significantly enlarged the spectrum of responsibility of CERC. Under the ERC Act, 1998 only the tariff fixation powers were vested in CERC. The new law of 2003 has entrusted on the CERC several other responsibilities in addition to the tariff fixation powers, for instance, the powers to grant licence for inter-State transmission, inter-State trading and consequently to amend, suspend and revoke the licence, the powers to regulate the licensees by setting performance standards and ensuring their compliance, etc.



#### THE MANDATE

s entrusted by the Electricity Act, 2003 the Commission has the responsibility to discharge the following functions:-

#### Mandatory Functions:-

- to regulate the tariff of generating companies owned or controlled by the Central Government;
- to regulate the tariff of generating companies other than those owned or controlled by the Central Government specified in clause (a), if such generating companies enter into or otherwise have a composite scheme for generation and sale of electricity in more than one State;
- to regulate the inter-State transmission of electricity;
- to determine tariff for inter-State transmission of electricity;
- to issue licenses to persons to function as transmission licensee and electricity trader with respect to their inter-State operations.
- to adjudicate upon disputes involving generating



companies or transmission licensee in regard to matters connected with clauses (a) to (d) above and to refer any dispute for arbitration;

- to levy fees for the purposes of the Act;
- to specify Grid Code having regard to Grid Standards;
- to specify and enforce the standards with respect to quality, continuity and reliability of service by licensees.
- to fix the trading margin in the inter-State trading of electricity, if considered, necessary;
- to discharge such other functions as may be assigned under the Act.

#### Advisory Functions:-

- formulation of National electricity Policy and tariff policy;
- promotion of competition, efficiency and economy in the activities of the electricity industry;
- promotion of investment in electricity industry;
- any other matter referred to the Central Commission by the Central Government.



# PROFILE OF THE CHAIRPERSON AND MEMBERS OF THE COMMISSION





Shri A.K.Basu
Chairperson and Chief Executive
(April, 2002 - Continuing)

hri A.K. Basu is presently Chairperson, Central Electricity Regulatory Commission.

Shri Basu had a brilliant academic career. He was First in order of Merit among all candidates in School Final (Matriculation) Examination, West Bengal, in 1958. He stood First in the First Class in B.A. (Honours in Economics) Examination, Calcutta University in 1962, from Presidency College.

He joined the Indian Administrative Service in 1965 and was allotted West Bengal Cadre. In Government of West Bengal, he has held several important positions, including Commissioner of Calcutta Municipal Corporation, Education Secretary, Labour Secretary, and Principal Secretary, Food and Civil Supply. He was the Chief Electoral Officer of the State from 1983 to 1987.

Shri Basu has worked in various capacities in Government of India. He was Deputy Secretary, Ministry of Home Affairs during 1976-77. He worked as Special Assistant to the Union Minister of Education, Social Welfare & Culture, during 1977 to 1980.



He was Special Secretary, Ministry of Home Affairs, Government of India, during 1996-97.

Shri Basu has had a long association with industry and infrastructure sectors. He was Development Commissioner, Iron & Steel, and then Joint Secretary, Ministry of Steel, Government of India, during 1988 to 1993. He served as Additional Secretary & Advisor (Industry & Minerals), Union Planning Commission during 1995-96, dealing with Plans and Projects of nearly 20 economic and infrastructure Ministries of Government of India. He was Secretary, Ministry of Steel, Government of India, from August, 1997 to May, 2000. Shri. Basu served as Secretary, Ministry of Power, Govt. of India from June 2000 till March 31, 2002. During this period, he pioneered several important initiatives for reforms and restructuring of the Indian Electricity Sector, including distribution reforms through the Accelerated Power Development and Reforms Programme, formulation of the Electricity Bill 2003, one-time settlement of dues of the Central Utilities, ranking study for hydro projects, energy conservation and demand side management, restructured programme for rural electrification etc.

Shri Basu was appointed Chairman, Central Electricity Regulatory Commission, in April 2002; this is a statutory position created under the Electricity Regulatory Commissions Act, 1998.

He has travelled extensively in India and abroad in connection with official business.





Shri K.N. Sinha Member (May, 2001 - Continuing)

hri K.N. Sinha joined the Central Electricity Regulatory commission as its Member on 11<sup>th</sup> May, 2001. Before joining the Commission, Shri Sinha was Member (Planning), Central Electricity Authority and ex-officio Additional Secretary to Government of India.

He obtained a Bachelors Degree in Electrical Engineering from Birla Institute of Technology, Ranchi in 1962. Immediately after graduation, Shri Sinha joined the then Uttar Pradesh State Electricity Board as an Assistant Engineer and was assigned the job of design and engineering of Ramganga Multipurpose River Project. He joined the Central Power Engineering service in 1964. Shri Sinha continued academic pursuit to upgrade his professional skills and obtained a Masters' Degree in Economics from the University of Himachal Pradesh in 1989, and a Post Graduate Diploma in Financial Management from Indira Gandhi National Open University, New Delhi in 1995. In 1980, he was awarded a UN Fellowship for training in Management of Thermal Power Stations and basic modern management course on Rural Electrification at National Rural Electric Cooperative Association, Washington, USA.

Shri Sinha has made significant contribution in the power development of the country. In his early days of his career, as an Executive Engineer with the



Government of Manipur, he introduced "Spot billing" and "Cash collection at the doors" concepts relevant in a hilly region of the country where the consumers live in far flung areas. As Member-Secretary of the 13th Electric Power Survey Committee and Chairman of 16<sup>th</sup> Electric Power Survey Committee, he brought out the 13<sup>th</sup> and 16th Electric Power Survey Reports, both being path-breaking documents introducing new concepts and approach, making the electrical energy demand projections more meaningful and realistic. He was part of the group responsible for designing the technical and techno-financial framework of legislation for inviting Private Sector participation in power generation. As Member (Planning), CEA, he finalised two landmark documents "The Fuel Map of India" and "Power on Demand by 2012", both the documents being the basis for power planning in the country in the time frame up to 2012. Shri Sinha has been responsible for introducing / redesigning a series of systems and publications in the Central Electricity Authority. He set up the procedure, methods and framework of examination and vetting of tariff proposals of Central PSUs in the power sector. He was the co-chairman of the Indo-Nepal Power Exchange Committee dealing with the tariff charges for international exchange of power between India and Nepal. He streamlined the procedure for project appraisal and techno-economic clearance to power schemes a statutory function of the CEA under Electric (Supply) Act, 1948. He was Chairman of the Standing Committee on Project Appraisal and co-chairman of Standing Committee on Firm Financial Package Appraisal.





Shri Bhanu Bhushan Member (February, 2004 - Continuing)

hri Bhanu Bhushan joined the Central Electricity Regulatory Commission as a Member on 4th February 2004. He holds a first class (Honours) degree in Electrical Engineering from Banaras Hindu University. He has worked for the Indian power sector since graduating in 1966, in the Renusagar Power Company Limited, Central Water & Power Commission, Indian Consortium for Power Projects, Bharat Heavy Electricals Limited, Desein (New Delhi) Pvt Ltd, National Thermal Power Corporation and Power Grid Corporation of India.

During his long career, Shri Bhushan specialized in the design of thermal and combined cycle power plants, having played a key role in the engineering of many pioneering power plants in India. These plants have performed admirably, without any design-related problems, at least partly due to his personal involvement in technical details.

He joined PGCIL at its inception in 1991, and rose to be its Director (Operations) in 1997, by virtue of his technical expertise and dedicated work. His responsibilities included supervision of O&M of PGCIL's country-wide EHV network (to maintain an availability of over 99%) and operation of the five Regional Load Dispatch Centres. He is an acknowledged authority on Availability tariff, and the originator of the concept of frequency-linked load dispatch and tariff for unscheduled



interchanges and voltage-linked pricing of reactive energy. These have been commended by World Bank, approved by CERC and implemented at inter-State level in India during 2002-03, to improve the grid parameters, enable generation according to merit-order, and provide the framework for power trading. He has authored many important chapters of the Indian Electricity Grid Code, and has specified and guided the indigenous development of special energy meters for inter-utility exchanges.

He coordinated the major ADB-funded study on Bulk power tariffs by ECC of USA in 1993-94. He was Member-Secretary of Sankaraguruswamy Committee, and was involved in finalization of the Electricity Laws (Amendment) Bill 1998, which recognized transmission as a separate activity. He also chaired a CBIP Committee which has formulated a well-received recommendation on EHV protection. He is a Senior Member of IEEE and a Member of CIGRE and its Study Committee C1. For his contribution in the field of power systems, he received the CBIP Diamond Jubilee PM Ahluwalia Award for 1996. He has written many technical papers, and delivered innumerable talks on problems of integrated grid operation, their solutions, inter-utility tariff, power sector reforms etc.





Shri H. L. Bajaj Chairperson, CEA and Member Ex-Officio, CERC (July, 2002 - Continuing)

hri H.L.Bajaj, Chairperson, Central Electricity Authority is Member (Exofficio), CERC since July 2002. He graduated in Electrical Engineering and postgraduate in Power systems from Punjab Engineering College, Chandigarh.

He has over 35 years of varied experience in the field of power. Back in 1970, his efforts resulted in electrification of the entire Haryana State being the first. In his 14 years service with Bharat Heavy Electricals Ltd. he planned and designed electrical substations and power plant electricals for Indian and Overseas projects. He has also been in the Corporate Office of NTPC in various capacities in the Contracts Management Department including a short stint as General Manager (Consultancy). Shri. Bajaj has been responsible for various facets of SuperThermal Power Projects. His 15 years stint with NTPC has been most exiting where he significantly contributed for setting up over 10,000 MW coal & gas based stations.

As head of the Western Region of NTPC, which is almost 1/3<sup>rd</sup> of total NTPC and contributing a billion dollar turn over per annum, revolutionized the working which resulted in increased efficiency levels and ISO certification of all the five Power Stations. During his tenure, the employees of this Region received the Prime Minister's highest prestigious Shram Vir and Shram Ratna Awards. He has been Director on the Board of NTPC.



Shri Bajaj took over as the Chairman, Central Electricity Authority & Ex - Ofiicio Secretary to the Government of India in July, 2002. Being an Apex Government of India body, Ministry of Power, Central Electricity Authority (CEA) is the nodal agency for planning of generation capacity and transmission system for the entire Indian power sector. CEA plays an active role in the development of hydro and thermal power and also plays a leading role for the development of Human Resources in the power sector.

Shri Bajaj is a Director on the Board of Nuclear Power Corporation and also the Chairman, Electrotechnical Division Council (ETDC), Bureau of Indian Standards, New Delhi.

Recipients of various Awards by Power Engg. Society, IEEE(USA), the Third Millennium Award for his contribution in the field of Power Engineering; Outstanding Engineer 2001 Award by the Institution of Electrical Engineers, UK (IEE); Eminent Engineer Award 2002 by the Institution of Engineers (India); Best Corporate Manager of the Year 2001 and also the PECOBA Award 2001 for exemplary excellence in Engineering field. Shri Bajaj is a Fellow & Charted Electrical Engineer the Institution of Electrical Engineers (IEE), UK; Fellow The Institution of Engineers, India and Fellow All India Management Association. Shri Bajaj is a Member of the Governing Body of Netaji Subhash Institute of Technology (formerly DIT), Delhi and a Member of the Award Board, Omprakash Bhasin Foundation of Delhi.

Invited speaker on various foras on power and allied subjects, Shri Bajaj has also presented numerous papers on power and contracts management.



### HUMAN RESOURCES OF THE COMMISSION

the Commission has a very wide mandate under the Act. The efficiency of the Commission in discharging its responsibilities depend upon the quality and functional specialization of its staff with the requisite expertise and experience in engineering, economics, financial management, accounting, law, environment, management information system and other related skills. The details of key human resources are provided in Annexures I and II. In addition, the Commission intends to utilise the human resources with their wide range of expertise and experience available within the Government, industry and research institutions. To supplement the in-house skills and experience available to it, the Commission engages consultants and for this purpose it has framed regulations. The details of Staff position in the Commission is given below in Table-1:

Table - 1
SANCTIONED/FILLED/VACANT POSTS IN THE COMMISSION
AS ON 31 MARCH 2004

S. No.	Name of the Post	No. of Posts sanctioned	No. of Posts Filled	Vacant Posts
1.	Secretary	1	1	-
2.	Chief	4	3	1
3.	Joint Chief	2	2	-
4.	Deputy Chief	8	4	4
5.	Assistant Chief	8	6	2
6.	Bench Officer	2	2	-
7.	Assistant. Secretary (P&A)	1	1	-

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8.	Pay & Accounts Officer	1	1	-
9.	Principal Private Secretary	4	4	-
10.	Private Secretary	5	4	1
11.	Assistant	5	5	-
12.	Personal Assistant	7	4	3
13.	Stenographer	4	3	1
14.	Receptionist-cum-Telephone Operator	1	1	-
15.	Senior Peon/Daftry	2	-	2
16.	Peon	4	2	2
17.	Driver	4	4	-
	TOTAL	63	47	16

#### Table - 2 Recruitment Status during the year 2003-04 RECRUITMENT DURING 2003-04

S.No.	Name of the Post	No. of posts filled
1.	Bench Officer	1
2.	Principal Private Secretary	1
3.	Private Secretary	3
4.	Assistant	4
	Total	9



#### THE YEAR IN RETROSPECT

#### (I) Central Advisory Committee(CAC)

he Commission has constituted Central Advisory Committee (CAC) by representation from Commerce, Industry, Transport, Agriculture, Labour, Consumers, Non-Governmental Organisations and Academic & Research bodies in the energy sector to get advise on policy formulation, quality continuity and extent of service provided by licensees, compliance by the licensee with the license conditions and requirements of the license, protection of consumer interest and energy supply and overall standards of performance by utilities. The Composition of the Central Advisory Committee is as follows:

- 1. Shri Yogendra Prasad, Chairman & MD, NHPC, Faridabad.
- 2. Shri C.P. Jain, Chairman & MD, NTPC, New Delhi
- 3. Shri R.P.Singh, Chairman & MD, PGCIL, New Delhi
- 4. Dr.D.V.Kapoor, Chairman, Reliance Power Ltd., New Delhi
- 5. Shri F.A. Vandrevala, Managing Director, Tata Power Company Ltd., Mumbai
- 6. Shri V.Raghuraman, Senior Advisor (Energy) CII, Gurgaon
- 7. Dr. Amit Mitra, Secretary General, FICCI, New Delhi
- 8. Shri Jai Prakash Gaur, Chairman & MD, Jai Prakash Industries Ltd., New Delhi
- 9. Shri Ravi Mohan, MD, CRISIL, Mumbai
- 10. Shri P.P Vora, Chairman & MD, IDBI, Mumbai
- 11. Shri K.Ramanathan, Senior Fellow, TERI, New Delhi
- 12. Shri Suman Kumar Bery, Director General, NCAER, New Delhi
- 13. Shri T.L. Sankar, Advisor, Administrative Staff College of India, Hyderabad



- 14. Prof. Badal Mukherji, The Delhi School of Economics, Delhi
- 15. Prof. V. Ranganathan, IIM, Bangalore
- 16. Shri Deepak Parekh, Chairman, HDFC, Mumbai
- 17. Shri Suresh Chand Gupta, Member(Electrical), Railway Board, New Delhi
- 18. Shri K.Gnanadesikan, Chairman, TNEB, Chennai
- 19. Shri D.C.Samant, Chairman & MD, RRVPNL, Jaipur
- 20. Shri Girish Sant, Prayas, Pune
- 21. Shri K.C. Naikwadi, Chairman, All India Power Engineers Federation, Bangalore
- 22. Shri Anil D. Ambani, Chairman & MD, Reliance Energy Ltd., Mumbai
- 23. Shri Sanjai Mitra, Chairman, WBSEB, Kolkata
- 24. Shri Nasser Munjee, MD and CEO, IDFC, Mumbai



 $5^{\text{TH}}$  CAC MEETING HELD ON  $18^{\text{TH}}$  JULY 2003



In the 5<sup>th</sup> meeting of the CAC, the Commission made detailed presentation on Discussion Paper on Terms and Conditions of Tariff for the period commencing from 1.4.2004 to the Members of CAC and advice was sought on various issues discussed in the Discussion Paper.

#### (II) MOUs/Bilateral Agreements

- (a) MOU between Central Electricity Regulatory Commission (CERC) and Massachusetts Department of Telecommunications and Energy (MDTE),
- (b) MOU between CERC and US Energy Association (USEA); and
- (c) MOU between CERC and Federal Energy Regulatory Commission (FERC)

he CERC, MDTE and FERC have agreed to participate as partners in the India Energy Partnership Program (IEPP). The USEA has entered into a cooperative Agreement with the U.S. Agency for International Development (USAID) Office of Energy, Environment and Technology, whereby USEA has agreed to organise and implement an India Energy Partnership Program (IEPP). The IEPP recognises the mutual interest between FERC & CERC and MDTE & CERC in exchange of information and experience. The IEPP is designed for mutual transfer of experiences and information back and forth between FERC & CERC and MDTE & CERC in an effective and efficient manner and to foster long-term sustainable relationships between the partners. It may involve all aspects of regulatory operations and administration such as management, restructuring, finance and accounting, independent power marketing, customer service, bulk power transactions, telecommunications, strategic planning and other necessary areas of expertise.





EXCHANGE VISIT 27 & 28 August, 2003 DELEGATION FROM FERC, USA.

(III) Notifications Issued during the Year

Table - 3

Following notifications have been issued by the Commission during the year

2003-04:

Sl	Issue No. & Date	Subject	
No.			
1.	46 dated 09.04.2003	Amendment in Central Advisory Committee of CERC	
2.	47 dated 09.04.2003	Continuation of billing of charges for a further period	
		of 6 months beyond 31.03.2003, ie., upto 30.09.2003	
3.	65 dated 01.05.2003	Amendment of CERC (Terms & Conditions of Tariff)	
		Regulations, 2001	
4.	87 dated 02.06.2003	CERC (Terms & Conditions of Tariff) (Second	
		amendment) Regulations, 2003	
5.	88 dated 02.06.2003	CERC (Terms & Conditions for grant of Transmission	
		License and other related matters) Regulations, 2003	
6.	112 dated 14.07.2003	Induction of new members in CAC	

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7.	167 dated 21.10.2003	Continuation of billing changes for a further period of	
		6 months beyond 30.09.2003, i.e., upto 31.03.2004	
8.	27 dated 06.02.2004	CERC (Open Access in Inter-state Transmission)	
		Regulations, 2004	
9.	28 dated 06.02.2004	CERC (Procedure, Terms & Conditions for grant of	
		Trading License and other related matters)	
		Regulations, 2004	
10.	68 dated 29.03.2004	CERC (Terms & Conditions of Tariff) Regulations,	
		2004	

The above Notifications came into force from the date of publication in the official gazette.

#### (IV) Seminar/Conferences/Training/Exchange Programs

The details of Seminar, Conferences, Training, Plant visits, Exchange Programs attended by the Chairman, Members, Secretary and Staff of the Commission are provided in **Annexure III** & **Annexure IV**.



Exchange visit in August, 2003 - CERC Deligation to FERC, USA

#### (V) Petitions During The Year

During the year 2003-04, the Commission dealt with 280 petitions - 159 petitions carried forward from the previous year and 121 petitions filed during 2003-04. Of



the total, 155 petitions were disposed of during 2003-04. Details of Petitions are documented in Annexure-V.

#### (VI) Important Orders and Regulations During 2003-04

#### (A) OPENACCESS IN INTER-STATE TRANSMISSION



The Electricity Act, 2003 mandates CERC to specify regulations for transmission pricing as well as terms and conditions for regulating open access in inter-State Transmission. The Commission had issued a concept paper in August, 2003 and held two days public hearing in October, 2003. The Commission issued regulations on 30<sup>th</sup> January, 2004 for providing open access in inter-State transmission after taking

into consideration numerous suggestions and comments received from the stakeholders in response to the draft regulations posted on its web site on 2.12.2003.

The Open access regulations have come into force heralding a new chapter in the history of Indian electricity supply industry when generating companies, distribution companies, electricity traders and captive plant owners are able to seek access to inter-State transmission system across the whole country for wheeling electricity. Open Access in transmission is vital for creating competition in the power supply industry. The consumers are able to seek open access as and when they are permitted by the State Commissions.

Highlights of the final regulations for open access in inter-State Transmission are as follows:

Transmission customers are divided into two categories, namely, long term customers and short term customers.



- A long term customer is to enter into bulk power transmission agreement with transmission service provider for use of inter-State transmission system for 25 years or more.
- A long term customer has the exit option to relinquish or transfer his transmission right and obligations with prior approval of the Commission subject to payment of compensation as may be determined by the Commission.
- Transmission customers other than long-term customers are short-term customers. The maximum duration of short-term access shall be one year with option to reapply.
- A long-term customer is allowed access based on transmission planning criteria stipulated in the Indian Electricity Grid Code. Long-term customer has the right to use the transmission system.
- Access to short term customer is allowed subject to availability of transmission capacity if request can be accommodated by utilizing inherent design margin, margin available due to variation in power flow and margin available due to in-built spare capacity.
- Allotment priority of long-term customers is higher than that of short term customers.
- If the transmission capacity reservation sought by short-term customer is more than the availability in a particular transmission corridor, at a point of time, the RLDC concerned invites bids. The floor price of the bids is as per the formula specified in the regulations. Bid based reservation commences after 90 days.



- The floor price for short-term customer is about 1/4th rate chargeable from long-term customer.
- The floor rate is displayed by each transmission service provider on web site in Rupees per MW per day.
- The minimum transmission charges payable by short-term customers are for one day and in multiple of whole days thereafter.
- The Commission incentivises declaration of surplus capacity by long-term customers so that unutilised capacity can be used by short-term customers resulting in optimum utilisation of capacity. For this purpose, the annual transmission charges are determined and after deducting adjustable revenue from the short-term customer are shared by the long-term customers in accordance with terms and conditions of the tariff notified by the appropriate Commission from time to time.
- Regional Load Dispatch Centres are to jointly formulate a detailed procedure for reservation of transmission capacity including bidding procedure for short-term customers within 45 days.
- Within a category, there is no discrimination between an open access customer and self use by an integrated entity like State Electricity Board.
- Nodal Agency for arranging long-term access is the Central Transmission Utility (POWERGRID), if its system is used, otherwise the nodal agency shall be the transmission service provider in whose system the drawal point is located.
- The nodal agency for short-term access is the RLDC of the Region where the drawal of electricity is situated.



- Application fee for long-term customer is Rs. 1.0 lakh and application fee for short-term customers would be Rs. 5000/-.
- The transmission capacity reservation for short-term customer is non-transferable.
- In the event of frequent under-utilisation of reserved capacity by a short-term customer, the RLDC may cancel or reduce the reservation. However, such a customer is to bear full transmission and scheduling charges as per the original reservation.
- Any person, other than the existing beneficiaries having a firm allocation from central generating station, is given 60 days notice by the RLDC to submit the application for grant of transmission access in accordance with these regulations. The transmission charges are applied on postage stamp basis in respect of each Regional system, inter-Regional link and other transmission system including those of state transmission utility or state electricity board.
- Out of the charges paid by the short-term customers, 25% is retained by the transmission service provider and balance used for reduction in the transmission charges payable by the long-term customers.
- All applications for transmission access are processed as per the time-table prescribed by the Commission in the regulations.
- In the event of unexpected transmission constraint, the short-term customers are curtailed first followed by long-term customers.
- Various commercial conditions for facilitating open access are to be standardised within 60 days by the Central Transmission Utility and the



#### Regional Load Dispatch Centre.

- The short-term customer is to pay scheduling and system operating charges
   @ Rs.3000/- per day to each Regional and State Load Dispatch Centre involved in the transaction.
- Any mismatch between schedule and actual drawals at the drawal point and at the injection point is met from the grid and its price is governed by the frequency linked unscheduled energy inter-change pricing mechanism already applicable to inter-State transaction under the ABT.
- All customers directly connected to POWERGRID network are required to pay reactive energy charges calculated as per the existing scheme.
- All transmission customers directly connected to POWERGRID network are required to install special energy meters capable of time differentiated measurement of active energy and voltage differentiating measurement of reactive energy.
- All users pay average energy loss in the transmission system as estimated by the SLDC and RLDC concerned. The energy loss is adjusted in kind i.e. average loss in transmission is compensated by additional injection at the injection point.
- Each RLDC and SLDC is required to maintain internet based information system with regard to floor rate for short term customer, current status of long-term and short customers, list of past short-term customers, information of power flow on inter-regional link, links between POWERGRID and State system and inter-State links and information regarding average energy losses during the previous weeks/months.



Any complaint regarding delays, discrimination and lack of information in the matter of open access in inter-state transmission is directed to the Member Secretary of Regional Electricity Board of the Region. Any unresolved problem or dispute is referred to the Commission.

#### OPEN ACCESS TRANSACTIONS: ALL INDIA (6th May 2004 to 30th Sep 2004)

	Number Of Approved Transactions			Energy
Regional Load Dispatch Centre	Inter Regional	Intra Regional	Total	(Million Unit)
Northern Region Load Dispatch Centre	112	101	213	4734
Western Region Load Dispatch Centre	84	15	99	2945
Eastern Region Load Dispatch Centre	2	7	9	176
Southern Region Load Dispatch Centre	2	2	4	149
North Eastern Region Load Dispatch Centre	0	0	0	0
TOTAL	200	125	325	8004



#### (B) TERMS AND CONDITIONS FOR ELECTRICITY TARIFF FOR THE PERIOD FROM 1.4. 2004 TO 31. 3. 2009.



- 1. The Electricity Act, 2003 requires CERC to specify the Terms and Conditions for determination of tariff for generation and inter-state transmission. The existing Regulations covering the period 1.4.2001 to 31.3.2004 expired on March 31, 2004. Accordingly, the Central Commission issued new Regulations, effective from April 1, 2004.
- 2. The Commission on 12<sup>th</sup> June, 2003 floated a Consultation Paper prepared on Terms and Conditions of Tariff, for comments from stakeholders, experts, investors, State Commissions, financial institutions etc. This was followed by open hearings on 10<sup>th</sup>, 11<sup>th</sup> & 12<sup>th</sup> November, 2003 in which all the stakeholders and other experts participated. Based on the outcome of these hearings, the Commission issued its Draft Regulations and a detailed Order, in January, 2004. The Commission held another consultation with the stakeholders through a public hearing on 9<sup>th</sup> & 10<sup>th</sup> March, 2004.



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- 3. CERC issued on 26<sup>th</sup> March, 2004 the Final Regulations incorporating Terms and Conditions of Tariff for generation and inter-state transmission. The Commission, in its final regulations has emphasised the following:
  - (i) All future projects and new investment in generation, transmission and distribution both by public sector utilities and IPPs should be structured through a tariff-based transparent competitive bidding process, so that the benefits of increased economic efficiency are passed on to the customers. This would also obviate the need for detailed regulation based on the existing "cost plus approach" which leads to inefficiencies and lack of initiative for better performance.
  - (ii) During the period of transition to a competitive bidding regime, tariff regulation as far as practicable, should move away from the "cost plus actuals" approach, to a new regime of light-handed regulation based on normative parameters. This would incentivise efficiency and streamline tariffs. The change over from intrusive regulation involving detailed scrutiny of actual costs to a lighter regime of normative parameters is the distinctive feature of the new regulation.
  - (iii) Keeping in view the need for setting multi-year tariff norms for regulatory certainty, the Commission has prescribed the Terms and Conditions for a five-year period from April 1, 2004 to March 31, 2009, as against the existing regulations, which cover a three-year period.
  - (iv) The Act envisages that the tariff parameters should encourage competition, efficiency, economical use of resources, good performance and optimal investment, while safeguarding consumer interest. All these parameters have been kept in view while framing the Regulations.
- 4. The terms and conditions of tariff finalised by the Commission apply to all inter-State Generating and Transmission utilities including NTPC, NHPC,



POWERGRID, NEEPCO, Neyveli Lignite Corporation, Satluj Jal Vidyut Nigamand the relevant IPPs.

5. Projects which are taken up through a transparent tariff based bidding process as per the guidelines of the Central Government shall be examined in accordance with the guidelines, and tariff arrived at through the bidding process shall be adopted by the Commission. These Regulations shall not apply to such projects.

#### 6. Salient features of the new Regulations

- The Capital Cost of all projects shall be as admitted by the Commission.
- The normative Debt: Equity ratio would be 70:30.
- The Return on Equity shall be 14% post tax, for the CPSUs as well as IPPs.
- Depreciation shall be allowed over the fair life of the assets at the rate notified by the Commission. In addition, advance against deprecation shall also be allowed to meet debt service obligations by considering the repayment period of loan as 10 years. While determining the advance against depreciation, cumulative depreciation recovered shall also be compared with the cumulative repayment made.
- Working capital shall be allowed on normative basis, and rate of interest applicable shall be the Short Term Prime Lending Rate of State Bank of India.
- Income tax on the core activity of the utility shall be reimbursable by the beneficiaries and shall be adjusted subsequently based on the income



tax assessment by the IT Authority under the Income Tax Act, 1961.

- Development surcharge has been discontinued.
- Performance benchmark of availability in terms of capacity index has been raised from 85% to 90% for purely run of the river hydro power stations (existing as well as new).
- Incentive benchmark for thermal generating stations has been raised from a plant load factor of 77% to 80%. Rate of incentive has been increased to 25 paise per unit from the existing 21.5 paise per unit.
- Target Availability and incentive benchmarks for existing Lignite based power stations of NLC increased from 72% to 75%.
- Efficiency benchmark for coal based thermal generating units of 500 MW has been revised to 2450 kcal/kWh from 2500 kcal/kWh.
- A separate higher efficiency benchmark of 1850 kcal/kWh has been specified for advance class gas turbine stations, whereas for other new gas turbine based generating stations the efficiency benchmark has been revised to 1950 kcal/kWh from 2000 kcal/kWh. However, the norms for smallgas turbine stations have not been changed.
- Specific oil consumption norm has been revised to 2 ml/kWh from 3.5 ml/kWh for coal based stations, and for lignite based stations the norm has been revised to 3 ml/kWh from 3.5 ml/kWh.
- For generating stations using coal or lignite as fuel, the norms for auxiliary energy consumption within the power station have been reduced by 0.5 percentage point across the board.



- Normative benchmark has been set at 0.3% and 0.8% for transit and handlinglosses of coal in respect of pit head and non pit-head coal based power stations, respectively.
- Normative benchmarks have been set for Operation and Maintenance expenses to be payable to thermal generating stations and transmission licensees.
- Target availability for A.C transmission system and HVDC transmission system have been separately specified as 98% and 95% respectively instead of 98% on overall basis.
- The maximum rate to be charged for Unscheduled Deviations (UI charges) from the generation or energy drawal schedules has been revised upwards from Rs. 4.20 to Rs. 6.00 at 49 hertz with a view to further improving grid discipline.

#### 7. Benefits of the new Regulations

- The Act prescribes that the State Electricity Regulators shall be guided by the principles and methodologies prescribed by CERC. This would lead to greater harmonisation, uniformity and certainty in electricity regulation across the States.
- The new Terms and Conditions of tariff finalised by CERC are likely to result in some reduction in bulk electricity tariffs, since the norms for servicing capital investment have been fine tuned with the current financial scenario and the benchmarks of efficiency have been raised. It would enable the State regulators, who determine the retail electricity



tariffs, to pass on the benefit to the ultimate consumer.

- Simultaneously, CERC has created an investor friendly environment by moving to light handed regulation based on normative parameters as far as possible, and carefully crafted the norms in a manner which allows an efficient enterprise to earn additional returns through savings and incentive.
- 8. The Availability Based Tariff (ABT) mechanism was adopted by the CERC during the last tariff period and has been successfully implemented across the whole country at the regional/inter-state level. ABT incentivises grid discipline and reliability of supply through frequency linked pricing mechanism and has brought about remarkable improvement in grid discipline at the regional level. CERC has decided that ABT would be continued during the new tariff period. The Commission expects that the ABT mechanism would be taken to its logical conclusion and the State regulators would extend it to intra-state level in the near future.



# (C) COMPRISION OF OLD AND NEW REGULATIONS ON TERMS & CONDITIONS OF TARIFF

	OLD REGULATIONS (1.4.2001-31.3.2004)	NEW REGULATIONS (1.4. 2004 - 31.3.2009)				
FINANCIAL NOF	FINANCIAL NORMS					
Capital Cost	Actual capital expenditure subject to approved project cost and excess as allowed by CEA or an independent agency.	Actual capital expenditure subject to prudence check by the Commission				
Initial Spares	Reasonable Spares were to be allowed; no norms.	Norms specified				
Additional Capitalization	-	Criteria specified				
Debt Equity Ratio	As per the GOI notification/ project specific notification	As admitted by the commission for existing stations and 70:30 for the new stations; If the actual equity is less than 30%, the actual equity to be considered for tariff.				
Return On Equity	16%	Reduced to 14%				
Interest on Loan Capital	Interest on loan shall be computed on outstanding loans as per schedule repayment from the approved Financial package.	Methodology clearly spelled out.				
Depreciation	Based on straight line method linked to historical cost and useful life of the assets.	No change				
Advance against Depreciation (AAD)	Subject to a ceiling of 1/12 of original loan amount	Subject to a ceiling of 1/10 of original loan amount				

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Interest on working capital  UI Charges for deviation	Interest rates on the cash credit rates prevailing at the time of tariff filing. Fuel component subject to ceiling as per actual applicable only for Thermal Power Stations.  Frequency linked charge	Interest rates on normative basis as short term Prime Lending Rate of SBI. Fuel component applicable for Thermal power stations only, based on normative .  Maximum ceiling rate revised
from generation or drawal schedule	introduced with a maximum ceiling rate of Rs.4.20 per kWh at 49 Hz.	to Rs. 5.70/kWh .
Development Surcharge	Introduced at 5% for Generation and 10% for Transmission.	Dispensed with
OPED ATIONAL	NODI (G	
OPERATIONAL I	NORMS	
THERMAL POWER ST		
Target Availability for	recovery of full fixed charges	
All Thermal Stations (except NLC TPS-II)	80%	Retained at 80%
NLC TPS-II	72%	Raised to 75%
Plant Load Factor (bas	sed on scheduled energy) for i	incentive
All Thermal Stations (except NLC TPS-II)	77%	Raised to 80%
NLC TPS-II (Stage - I &II )	72%	Raised to 75%
Gross Station Heat Ra		
Coal based TPS	2500 Kcal/KWh	Reduced to 2450Kcal/KWh for 500 MW sets
Lignite based Stations	4% to 10% higher than the coal based stations depending on moisture content.	No change



Combined cycle	2000 Kcal/Kwh and seprate	1850/1950 Kcal/Kwh
stations	norms for small gas turbines	depending upon class of the
	less than 50 MW	Gas turbine
Seconday Fuel Oil Con	sumption	
Coal/Lignite based	3.5 ml/KWh	2.0 ml/KWh for coal and 3.0
stations		ml/kWh for lignite based stations
Aux. Energy Consump	tion	
Coal/Lignite based	As per GOI notification	Reduced by 0.5% point for
Stations	dt.30.3.1992	coal based stations.Norms for lignite based stations retained
Combined cycle stations	3.00%	No change
O&M Expenses		
	Based on actual for 1995-2000	Delinked from actual or
	with escalation for existing stations. For new stations - @	historical cost. Normative
	2.5% of the capital cost.	specified in Rs./MW term.
Incentive		
	50% of the fixed charge per	Flat rate of 25 paise/kwh
	kWh subject to ceiling of 21.5	above targeted PLF
	paise/kWh above targeted PLF	
	HONG	
HYDRO POWER STAT		
Capacity Index for red	overy of full annual fixed cha	ŭ
	85%	Raised to 90% for run of the
		river hydro stations & retained at 85% for storage/pondage
		type hydro stations
Auxiliary Energy Cons		
	0.2 to 0.7% depending upon	No change
	the type of power house and	
	excitation system	



Incentive		
	Related to annual capacity charge and capacity index achieved.	Related to annual fixed charge and capacity index achieved. To result in higher incentive for older efficient stations.
O&M Expenses		
	Based on actual for 1995-2000 with escalation for existing stations. For new stations - @ 1.5% of the capital cost.	No change in methodology.
INTER-STATE TRANS	MISSION	
Target Availability for	recovery of full transmission o	9
	98%	Retained for AC System as 98% and reduced to 95% for HVDC system.
O&M Expenses		
	Method of arriving at normative O&M expenses as per ckt -km and per bay basis for each region based on actual prudent O&M expenses was prescribed.	Normative O&M expenses prescribed as Rs. 0.227 lakh per ckt-km and Rs. 28.12 lakh per bay for 2004 -05 to be escolated @4.0% per year(for subsequent years)
Incentive		
	Incentive payble @ 1% of equity for every 0.5% increase in availability above 98%. No incentive payble above availability of 99.75%	Incentive payble @ 1.0% of equity for each percentage point increase in availability beyond target availability.



#### (D) INTER-STATE TRADING IN ELECTRICITY

The Electricity Act, 2003 recognises trading as a separate licensed activity. The CERC is required to issue the licence for inter-state trading. Consequent upon the enactment of The Electricity Act, 2003, the Commission has been receiving applications for grant of licence for trading. The Commission has ordered that these applicants may, at their own risk, carry out trading in electricity by complying with all the existing Laws and Regulations till the licence application is processed as per the Commission's regulations.

The Act envisages that the Commission shall notify the procedure for grant of licence and also specify the technical requirement, capital adequacy requirement and credit worthiness for being an electricity trader. The trader is to discharge duties in relation to supply and trading in electricity as may be specified by the Commission. Keeping in view the requirements of the Act, the Commission had circulated a Concept Paper on "Eligibility Conditions for Grant of Power Trading Licence" in September 2003. The Commission received large number of comments on the concept paper. On December 9, 2003, the Commission issued the Draft Regulations for electricity trading. These trading regulations notified on 30<sup>th</sup> January 2004.

#### Salient Features of the Trading Regulations

- Any person interested in obtaining inter-state trading licence shall apply to the CERC in the format enclosed with the regulations.
- The application fee shall be rupees one lakh provisionally subject to adjustment as and when the Government of India notifies the fee.
- The present Regulations will apply to trading to be carried out bilaterally between generator and trader, and trader and licensee. The Regulations



would be modified as and when open access in distribution is allowed, and when power exchange is introduced.

- The applicant has to publish his application, within 7 days of making such application, in at least two national English daily newspapers and two local newspapers. The publication shall include the name of the applicant, address, share holding pattern, financial and technical strength, management profile, volume of power intended to be traded, areas in which the proposed trading is to be taken place etc.
- The trader has to comply with the minimum technical requirements of having at least two full time professionals, one having experience in power system operations, and the other in finance, commerce and accounts.
- The capital adequacy and credit worthiness for being an electricity trader is divided into six different categories as per the following table. This table also indicates the annual licence fee to be paid by various categories of traders.

Sl.No	Category of	Electricity traded	Net worth	Annual
	the Trading	(in Kilo - Watt Hours)	(Rs. In	Licence fee
	Licencee	per annum	crores)	(Rs in lakhs)
1	A	Upto 100 million	1.50	1.00
2	В	100 to 200 million	3.00	2.00
3	С	200 to 500 million	7.50	5.00
4	D	500 to 700 million	10.00	7.00
5	Е	700 to 1000 million	15.00	10.00
6	F	Above 1000 million	20.00	15.00

- The Commission may fix the trading margin from time to time.
- The licence shall be valid for a period of 25 years unless revoked earlier.



- The Commission may issue appropriate directions, in case any trading licensee is found to be abusing its position.
- The terms and conditions of the licence may be modified by the Commission in the public interest or on an application made by the licensee, following the notified procedure.
- The licence may also be revoked in the event of defaults or violation of any of the terms and conditions of the licence.

The Commission has already issued the orders for open access in transmission. Introduction of open access is expected to promote trading and will facilitate better utilisation of generation capacity. This will facilitate harnessing of the bottled up energy of captive power plants as well, if the sale rate of power is attractive, taking into account the wheeling charges, transmission losses, trading margin etc.

## (E) AVAILABILITY BASED TARIFF (ABT) AND ITS IMPLEMENTATION

#### Background of ABT

Over a period of time it was observed that there were mismatches between generation and load, which resulted in high frequencies during certain period and low frequencies during other periods. This indiscipline led to frequent grid disturbances and at times major failures of the grid. The issue of frequency variation from as low as 47.8 Hz in the Southern Region to over 52 Hz in the Eastern region was causing lot of concern to various stakeholders. This issue was debated by various experts and the concept of a three part ABT was formulated.



#### Features of ABT

- It is a performance-based tariff for the supply of electricity by the generating companies owned and controlled by the Central Government.
- It is also a new system of scheduling and despatch, which requires both generators and beneficiaries to commit to day-ahead schedules.
- It is a system of rewards and penalties, seeking to enforce day ahead precommitted schedules, though variations are permitted if notified one and one half hours in advance.
- The order emphasises prompt payment of dues. Non payment of prescribed charges will be liable for appropriate action.
- It has three parts: (a) A fixed charge (FC) payable every month by each beneficiary to the generator for making capacity available for use. (b) An energy charge per kwh of energy supplied as per a pre-committed schedule of supply drawn upon a daily basis. (c) A charge for unscheduled interchange (UI charge) for supply and consumption of energy in variation from the pre-committed daily schedule. This charge varies inversely with the system frequency prevailing at the time of supply/consumption. Hence it reflects the marginal value of energy at the time of supply.

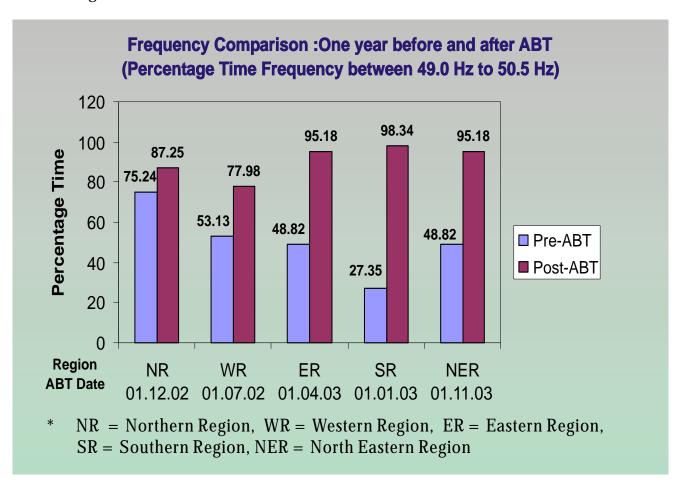
#### Impact of ABT

ABT has been implemented now in all the regions in India. The ABT commenced on July 1<sup>st</sup> 2002 in the Western Region followed by Northern Region (December 1<sup>st</sup> 2002), Southern Region (January 1<sup>st</sup> 2003), Eastern



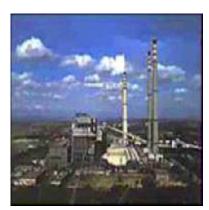
Region (May 1<sup>st</sup> 2003), and Norther-eastern Region (November 1<sup>st</sup> 2003).

- The results of the ABT so far have clearly established that the stakeholders are trying to optimise their drawls from the Central Sector Power Stations visà-vis the UI charges they have to pay.
- The introduction of ABT had also paved the way for trading in electricity. The UI rate acts as a benchmark price for trading activity.
- The grid stability has improved substantially after introduction of ABT. A comparative chart showing grid performance before and after ABT is as given below:





#### (F) PROCEEDINGS BEFORE THE COMMISSION



## Petitions Relating to Thermal Power Stations

- 1. The Commission dealt about 78 petitions relating to the thermal generating stations of NTPC, NLC and NEEPCO. Of these 78 petitions,
  - (a) 34 were tariff petitions,
- (b) 31 were review petitions,
- (c) 12 relating to other issues like free governor mode operation etc and
- (d) 1 was suo-motu petition on terms and condition of tariff for the period 2004-09.

#### 2. Of the 34 tariff petitions,

Final orders were passed for Kayamkulam GPS, Faridabad GPS and Vindhyachal STPS stageII for the tariff period up to 31.3.2004 (Tariff awarded can be seen in following tables). Final orders were reserved in case of FGUTPP stage-II.

TARIFF OF COAL BASED POWER STATIONS OF NTPC AWARDED DURING 2003-04

Name of Station	Vindhyahal STPS St-I	Vindhyachal STPS St-II	Singrauli STPS	Ramagundam STPS	Korba STPS	FGUTPP St-I
Capacity (MW)	1260	1000	2000	2100	2100	420
Annual Capacity C	harges (Rs. Lak	<u>ch)</u>				
Return on Equity	12663	11482	8696	17882	11791	7526
Interest on Loan	139	9707	933	0	743	11
Depreciation	5030	8688	4113	3853	5535	3374
Advance Against Depreciation	0	5266	0	2202	0	0



O&M	11188	6976	18749	19484	17776	7154
Interest on Working Capital	2762	2612	3969	5187	3102	1526
Total	31782	44731	36460	48608	38947	19591
Base Energy Charges ( paise/kWh sent out) (Subject to Fuel Price variation on month to month basis)						
	70.68	63.37	67.98	82.62	41.75	106.03

# TARIFF OF GAS / LIQUID FUEL BASED POWER STATIONS OF NTPC AWARDED DURING 2003-04

Name of Station	Faridabad GPS	Kayamkulam CCGT	Auraiya GPS	Dadri GPS		
Capacity (MW)	431.58	359.58	663.36	829.78		
Annual Capacity Charg	es (Rs. Lakh)					
Return on Equity	7233	5401	5767	6931		
Interest on Loan	6166	1357	176	3054		
Depreciation	4151	5090	3836	4798		
Advance Against Depreciation	0	1474	0	0		
O&M	2668	3489	2948	3926		
Interest on Working Capital	1422	2822	1716	2387		
Total	21630	19633	14443	21096		
Base Energy Charges (paise/kWh sent out) (Subject to Fuel Price variation						
on month to month basis)						
Natural Gas	89.05		96.27	96.28		
Liquid Fuel	301.31	277.88	297.97	369.69		

■ Provisional tariff for supply of infirm power was awarded for newly commissioned stations namely green field Simhadri TPS and Talcher TPS stage-II (extension project).

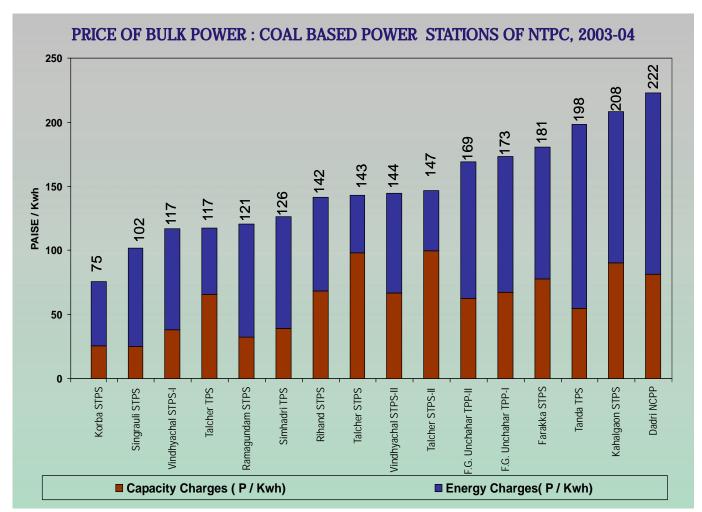


- Final orders were passed for Dadri GPS for the period 1.4.99 to 31.3.2001. NTPC was granted liberty to approach Commission after the approval of the revised cost estimates by the competent authority in case of Kahalgaon STPS. The Commission heard the amended petitions of NTPC for Gandhar GPS, Farakka STPS, Kawas GPS and petition of NCTPS Dadri and reserved the orders.
- Final tariff orders were passed for 7 generating stations of NTPC (Tariff awarded can be seen in above tables). The Commission reserved orders in 8 other petitions of NTPC pending finalization of tariff for the period prior to 1.4.2001.
- Tariff for infirm power supply from the newly commissioned stations of NLC TPS-I (expansion) was allowed. In respect of 2 petitions of NEEPCO for Agartala GPS and Assam GPS, the Commission allowed single part tariff of Rs.1.90/kWh and Rs.2.25/kWh respectively up to 31.3.2003 with a direction to file fresh petitions for the period 2003-04.
- 3. Of the 31 review petitions of NTPC, NLC and SEBs,
  - 17 petitions were disposed after due process of hearing (not maintainable and hence dismissed).
  - In 2 petitions the orders were modified.

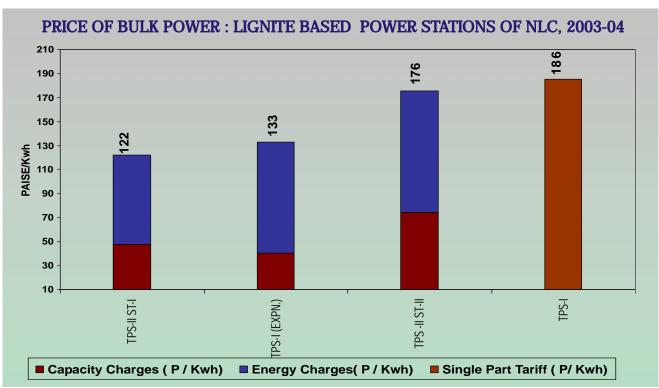


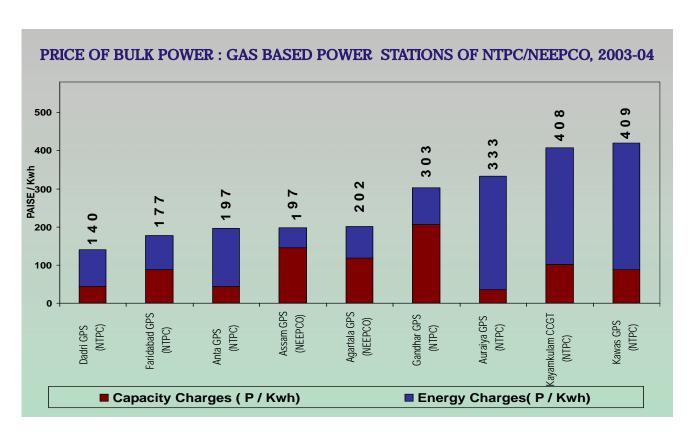
#### Price of Bulk Power: Comparative Analysis

The Commission awards station-wise tariff in a transparent manner in accordance with tariff regulation. The two part tariff is awarded in terms of annual fixed charges and variable/energy charges. Based on the station-wise tariffs awarded by the Commission, the following graphics depict the comparative price of bulk power in terms of paise/kwh for the year 2003-04 for various types of generating stations regulated by CERC. The energy charges correspond to average fuel prices in March, 2004.



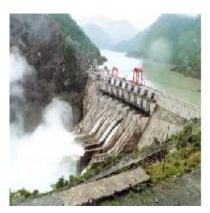








4. 13 petitions pertaining to matters other than tariff. These were in the nature of suo-motu petitions involving determination of terms & conditions of tariff for the period 2004-09, petitions involving removal of difficulty in ABT implementation, FGMO etc. and disposed of 12 petitions after due process of hearing.



#### Petitions Relating to Hydro Power Stations

- The Commission dealt about 14 petitions relating to, hydro generating stations of NHPC, NEEPCO, Satluj Jal Vidyut Nigam Ltd (Nathpa Jhakri), Narmada Hydro Development Corporation and Orissa Hydro Power Corporation. Of these 14 petitions,
- a) 8 pertain to tariff petitions,
- b) 4 Review Petitions of NHPC,
- c) 1 relating to free governor mode operation and
- d) 1 was suo-motu petition on Terms and Conditions of Tariff for the period 2004-09.
- 2. Out of the 8 tariff petitions,
  - Provisional tariff for the year 2003-04 was allowed for 3 new generating stations, viz., Chamera-II, Nathpa Jhakri and Indira Sagar HEP.
  - Pending filing of certain inputs by the utilities, provisional two-part tariff was allowed in respect of Doyang, Kopili and Khandong HEPs of NEEPCO on the implementation of ABT in the N.E. Region w.e.f. 1.11.2003. Tariff petition for Ranganadi HEP of NEEPCO was disposed of for non-submission of revised financial package.
  - Final tariff order was issued in respect of Rangit HEP of NHPC (tariff awarded can be seen in the fallowing table).



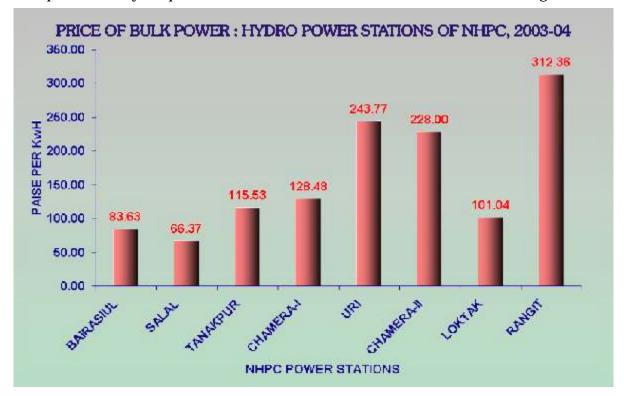
#### TARIFF OF RANGIT HEP (3X20 MW) OF NHPC AWARDED DURING 2003-04

(Rs. in lakh)

Annual Fixed Charges	2001-02	2002-03	2003-04
Interest on Loan	3464	3081	2116
Interest on Working Capital	229	236	218
Depreciation	1130	1130	1130
Advance Against Depreciation	631	1342	1342
Return on Equity	2910	2910	2910
O&M Expenses	744	767	795
Total	9108	9466	8511

3. The Commission reserved orders for 4 Review petitions in respect of Chamerast-I, Salal, Uri and Tanakpur HE stations filed by NHPC.

As per tariff awarded by the commission, price of bulk power (price/KWH), computed for Hydropower stations of NHPC can be seen in the following chart.





4. 2 suo-motu petitions dealt pertained to matters other than tariff involving Review of Terms & Conditions of Tariff for the period 2004-09 and 1 petition regarding exemption from FGMO sought by Orissa hydro power corporation.

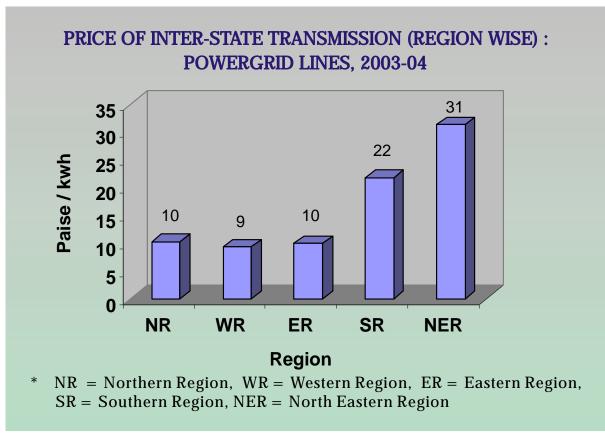


### Petitions Relating to Inter-State Transmission

- 1. During the year 2003-04, the Commission disposed of 83 petitions pertaining to inter-State transmission. Of these 83 petitions,
- a) 71 petitions were related to tariff,
- b) 4 petitions were related to licence for inter-State transmission,
- c) 5 petitions were related to non-payment of UI charges and
- d) 3 petitions were related to grid indiscipline and grid security.
- 2. Petitions related to inter-State Transmission licence
  - POWERGRID had filed a petition (No. 73/2003) for approval of methodology adopted for price variations in supply and erection contracts and for the increase in project cost on account of escalation in price and quantity variations in respect of transmission lines to be implemented by Powerlinks Transmission Ltd, which has been granted licence by the Commission. The Commission, vide order dated 5<sup>th</sup> January, 2004 came to the conclusion that it is not necessary



to approve the formulae for quantity and price variations submitted by the petitioner in the petition. Before granting approval to the revised cost estimates, Central Government will get the costs examined by its agencies as is the practice. The Commission expressed that at this stage it cannot put seal of approval to the prayers made in the petition,. The petitioner was directed to liaise with POWERGRID so that the proposal for obtaining approval of the Central Government is expedited and finalised by 31.1.2004.



Another petition (No. 92/2003) was filed by Power Links Transmission Limited regarding concerns of the lenders. The petitioner sought the Commission's approval to make an agreement with lenders to assign its licence to them and to transfer its utility and the assets, following the occurrence of any of the event of default defined in the Financing Documents signed between the applicant lenders. The applicant had



also sought the Commission's approval to the sale of its utility/assets to POWERGRID, pursuant to the provisions contained in the Implementation Agreement and Transmission Service Agreement at the buy out price agreed to in these agreements, without requiring any further application to be made to the Commission. Lastly, the applicant had sought a direction as to whether the financing documents are required to be filed with the Commission for its record. The Commission, vide order dated 5th February, 2004, in principle allowed the petitioner to enter into agreement with lenders to assign the licence or to transfer of the utility or assets to the extent of loan and other dues recoverable. The Commission, however, expressed that before transferring the utility or assets of the applicant by lenders to their nominee, they shall be required to approach the Commission for its approval. So far as the provisions for buy out of the assets of the applicant by POWERGRID are concerned, the Commission considered it sufficient to state at this stage that such an action must conform to sub-section (1) and sub-section (2) of Section 17 of the Act since POWERGRID in its capacity as the Central Transmission Utility is a deemed transmission licensee. Lastly, the Commission directed that Finance Documents may be filed by the applicant as and when required for some specific purpose.

An application (No 93/2003) was filed by Consortium of Tenega Nasional Berhad, Malaysia (TNB) & Kalpataru Power Transmission Ltd., India (KALPATARU) for Grant of Transmission License to Bina-Dehgam Transmission Company Limited for 400 KV D/C Bina-Nagda-Dehgam in the States of Madhya Pradesh, Rajasthan and Gujarat. Power Grid Corporation of India Ltd (POWERGRID) in its capacity as the Central Transmission Utility had submitted its recommendations in terms of sub-section (4) of Section 15 of the Act. The Central Transmission Utility submitted that the levelised tariff worked out by the applicant was higher by 12.34% to 24.33%, for



which the beneficiaries had not been consulted, though no other details were furnished. The applicant had indicate d the year-wise transmission service charge for a period of 30 years after the date of commercial operation and the estimated completion cost of the transmission lines to be Rs.675.87 crore. In the revised affidavit filed before the Commission, the applicant indicated the estimated completion cost of the transmission lines to be Rs.657 crore. In the affidavit filed on behalf of the Central Transmission Utility, the estimated completion cost is stated to be Rs.557 crore, which according to the representative of the Central Transmission Utility, should be the benchmark price. On analysis of the proposals for estimated completion cost and the likely tariff on commissioning of the transmission lines, the Commission vide order dated 27<sup>th</sup> April, 2004 came to the conclusion that grant of license will not benefit the end consumer. On the contrary, he may be forced to a higher tariff. On these considerations, the Commission rejected the applicant's prayer for grant of licence for the Bina-Nagda-Dehgam transmission lines. The Commission also directed that POWERGRID who is to construct the transmission lines, shall make every endeavor to execute the transmission lines within the cost which it has termed the benchmark price, that is Rs. 557 crore, and in any case the total cost should not exceed Rs. 617 crore.

Another petition (No 99/2003) was filed by Consortium of M/s Tenaga Nasional Berhad (TNB), Malaysia and M/s Kalpataru Power Transmisson Ltd (KALPATARU) during pendency of their application for transmission licence with a request for issuing directions to POWERGRID in respect of Right of Way and Forest Clearance permit to be considered as conditions precedent of POWERGRID (CTU) in the implementation of BINA-NAGDA-DEHGAM 400 kV transmission line under IPTC route. The Commission vide order dated 5<sup>th</sup> February, 2004 expressed that the issue of inclusion of the



delays on account of right of way and forest clearance in the scope of force majeure conditions falls within the domain of the contracting parties, to be considered and decided by them. The Commission, therefore, rejected the prayer made in this behalf. POWERGRID agreed to take up the cases with the concerned authorities for obtaining the right of way and the forest clearances at the risk and cost of the petitioner and without any legal or binding obligation on the part of the respondent.

## 3. Petitions related to maintenance of grid frequency and non-payment of UI charges

- Commission disposed 8 petitions related to maintenance of grid frequency and non-payment of UI charges. Petition No 107/2002 and 108/2002 were filed by Western Regional Load Despatch Centre regarding overdrawals from the grid and grid security. The Commission vide order dated 28th January, 2003 had directed that MPSEB shall pay a token penalty of Rs. 1.00 lakh only. MSEB and GEB were also found to be contributing towards grid indiscipline so show cause notive were issued to them. While disposing these petition on 9th April 2003, the Commission expressed strong disapproval of conduct of GEB and MSEB of overdrawal of power from the Western Regional Grid on different occasions. However, taking cognizance of subsequent cooperation displayed by these utilities in the matter of grid management, as submitted by the petitioner, the Commission refrained from imposing any penalty under Section 45 of the Act.
- Petition No. 13/2003, 19/2003, 20/2003 and 53/2003 filed by Northern Regional Load Despatch Centre for non-payment of Unscheduled Interchange (UI) charges by MP State Electricity Board, Bihar State Electricity Board, Power Development Department,



Jammu and Kashmir and Uttar Pradesh Power Corporation Ltd respectively were disposed of. Another petition (No 14/2003) filed by Western Regional Load Despatch Centre for recovery of UI charges from MPSEB was also disposed of. In all the cases pertaining to default in payment of UI charges, Commission took a strong view and issued directions for payment of outstanding amount by specified dates. As a result, a substantial payments towards UI charges were made by the defaulting utilities.

#### Petitions Relating to Inter-StateTrading

- 1. During the year 2003-04, 13 applications for grant of inter-State trading were filed before the Commission.
- 2. A petition (No 88/2003) was filed by NTPC Vidyut Vyapar Nigam Limited to declare it as "Deemed Licensee" in terms of Section 14 of the Electricity Act, 2003 to undertake inter-state Trading in Electricity. The Commission vide order dated 13<sup>th</sup> February, 2004 came to the conclusion that the interpretation placed by the petitioner cannot be countenanced and the declaration sought by the petitioner to the effect that it is a "deemed licensee" does not hold. The petition was accordingly dismissed.

Locational maps of power stations of NTPC, NHPC & NEEPCO as well as Inter-State transmission network of POWER GRID are at Annexure VI, Annexure VII, Annexure VIII & Annexure IX.





#### **ANNUAL STATEMENT OF ACCOUNTS**

#### **Expenditure**

During the Financial Year 2003-04 the Commission was provided with a budgetary support of Rs.500.00 lakhs against which the expenditure incurred was Rs.463. The details of the expenditure against each Primary Unit of Appropriation are given below.

#### DETAILS OF EXPENDITURE DURING THE YEAR 2003-04

(Rs. in lakhs)

Unit of	2003-04	2003-04	Actual
Appropriation	( BE )	(RE)	Expenditure
Salary	105.00	115.00	106.00
DTE	10.00	8.00	7.00
FTE	20.00	30.00	15.00
Office Expenses	60.00	80.00	63.00
Professional	50.00	60.00	Nil
Services			
RRT	245.00	270.00	271.00
Other Charges	10.00	10.00	1.00
Total	500.00	573.00	463.00

From the above it is seen that the major share of expenditure was on RRT followed by Salary. The Commission endeavoured to keep the expenditure within its allotted budget. It is worth mentioning that by enforcing stringent economic measure, the Commission saved Rs. 37.00 lakhs and surrendered the same to Ministry of Power (Budget Division) well in advance so that the same could be utilised on some other



# AGENDA FOR THE YEAR 2004-05

The Commission has the following important agenda for the year 2004-05:

- Review of implementation of open access in inter-State transmission.
- Formulation of principles for reimbursement/tariff for the Unified Load Dispatch Scheme implemented at the RLDCs.
- Finalisation of grid code to be notified by the Commission as per Section 79(h).
- Amendment in the terms & conditions for grant of transmission licence.
- To initiate discussion on competition in generation of electricity.
- To initiate discussion on development of power market.



# Annexures



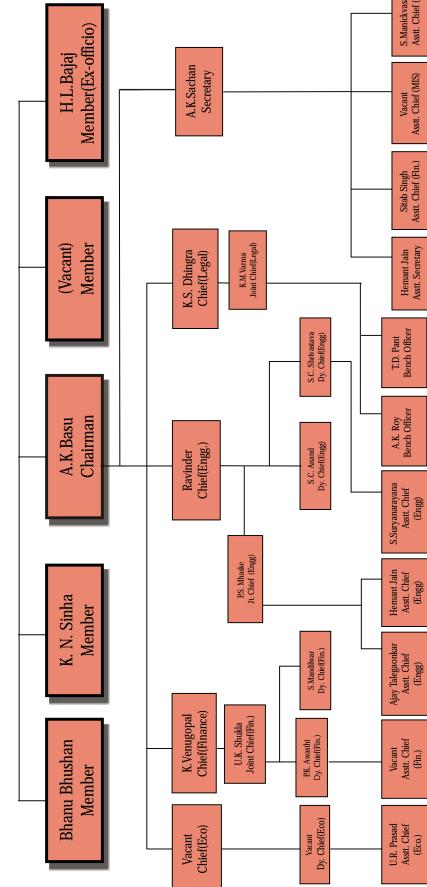
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# S.Manickvasagam Asstt. Chief (Env.)

# **ORGANISATION CHART**

(As on 31-March, 2004)

Annexure I





#### **ANNEXURE-II**

# E-MAIL ID AND PHONE NUMBERS OF THE CHAIRPERSON, MEMBERS AND STAFF OF THE COMMISSION (AS ON 31.3.2004)

Designation	Name	Phone No.	E-mail
Chairperson	A.K. Basu	24360004	chairman@cercind.org
Member	K.N. Sinha	24361280	kns60@rediffmail.com
Member	Bhanu Bhushan	24361259	bhanubhushan@cerc.org
Member	Vacant		
Ex-Officio Member	H.L. Bajaj	26102583	chairman@nic.in
Secretary	A.K. Sachan	24361051	ak_sachan@yahoo.com
Chief (Finance)	K.Venugopal	24364898	venu_k_gopal@hotmail.com
Chief (Legal)	K.S.Dhingra	24363174	ks_dhingra@hotmail.com
Chief (Engg)	Ravinder	24364960	ravinderveeksha@hotmail.com
Chief (Eco)	Vacant (1 post)		
Joint Chief (Finance)	U.K. Shukla	24363395	ukshukla@cercind.org
Joint Chief (Legal)	K.M. Varma	24363327	k_m_varma@yahoo.com
Joint Chief (Engg)	P.S.Mhaske	24364826	psmhaske@yahoo.com
Deputy Chief (Engg)	S.C.Anand	24364826	anandsca@hotmail.com
Deputy Chief (Engg)	S.C.Shrivastava	24364895	scschandra@hotmail.com
Deputy Chief(Finance)	P.K. Awasthi	24364895	awasthi_prabhat@yahoo.com
Deputy Chief(Finance)	S. Mandilwar	24364895	sanjiva_mandilwar@yahoo.com
Deputy Chief	Vacant (3 posts)		
Assistant Secretary	Hemant Jain	24361145	hem_jain@hotmail.com
Assistant Chief (Engg)	AjayTalegaonkar	24364826	ajay_tal@hotmail.com
Assistant Chief (Engg)	Hemant Jain	24364826	hem_jain@hotmail.com
Assistant Chief (Engg)	S. Suryanarayana	24364895	surya_928a@yahoo.co.in
Assistant Chief(Fin)	Vacant (1 post)		
Assistant Chief (Eco)	U.R. Prasad	24363338	uppaluri123@rediffmail.com
Assistant Chief(Env)	S.Manickavasagam	24363338	s_vasagam@yahoo.com
Assistant Chief(MIS)	Vacant		
Assistant Chief(A/cs)	Sitab Singh	24361145	sitab_s_b@yahoo.com
Bench Officer	A.K. Roy	24364911	akroy44@hotmail.com
Bench Officer	T.D.Pant	24364911	



ANNEXURE-III

# SEMINARS/ CONFERENCES/ EXCHANGE PROGRAMS ATTENDED BY THE CHAIRPERSON/ MEMBERS/ SECRETARY/ STAFF OF THE COMMISSION OUTSIDE INDIA

S. No	Name & Designation	Seminar/Conference/Program	Country Visited
1.	Shri Ajay Talgaonkar, Asstt. Chief (Engg)	SAFIR Training Program on Infrastructure Regulation and Reforms from 3 <sup>rd</sup> August to 11 <sup>th</sup> August 2003	Colombo, Sri Lanka
2.	Shri A.K. Basu, Chairman Shri A.K. Sachan, Secretary	The USEA/USAID Energy Partnership program between CERC and FERC from 18 <sup>th</sup> to 20 <sup>th</sup> August, 2003	U.S.A.
3.	Shri Ravinder, Chief (Engg) Shri K.M. Verma, Jt. Chief (Legal) Shri Sitab Singh, Asstt. Chief (Finance) Shri U.R. Prasad, Asstt.Chief (Eco)	The USEA/USAID Energy Partnership program between CERC and FERC from 14 <sup>th</sup> to 20 <sup>th</sup> August, 2003	U.S.A.
4.	Shri A.K. Basu, Chairman Shri K. Venugopal, Chief (Finance)	Second World Forum on Energy Regulation from 6 <sup>th</sup> to 7 <sup>th</sup> October 2003	Rome, Italy
5.	Shri A.K. Basu, Chairman Shri P.S. Mhaske, Jt. Chief	Asia Power 2004 Conference from 11 <sup>th</sup> to 13 <sup>th</sup> February, 2004	Singapore



**ANNEXURE-IV** 

# IMPORTANT PROGRAMS ATTENDED BY OFFICERS OF THE COMMISSION IN INDIA

S. No.	Name of Hosting Institution	Name of Program & Duration	Designation of Officers deputed
1.	AMCHAM	Workshop on "Knowledge Resources on Infrastructure Regulation: Search & Gain through the Internet & New Opportunities for Investors in Urban Power 1 st and 2 nd May 2003	Dy. Chief (Engg) Asstt. Chief (MIS)
2.	CII & Bar Association of India	International Conference on Legal Reforms in Infrastructure: The Road Map $2^{nd}$ and $3^{rd}$ May 2003	Joint Chief (Legal)
3.	NLC	Electricity Act, 2003	Shri K.N.Sinha, Member
4.	India Tech Foundation, Mumbai.	Indian Power Sector- Challenges, Opportunities and Conversion of Vision into Reality, organized by India Tech Foundation, Mumbai.	Shri K.N.Sinha, Member
5.	IPPAI	IPPAI's Conference on Power Strom,2003 at Goa from 11-12 July 2003	A.K.Sachan Secretary
6.	TERI	Workshop on Regulatory Reform in India: Effectiveness, Efficiency and Impacts	A.K.Sachan Secretary
7.	World Bank	Workshop on "Strategies for Sustained Reforms in the State Power Sector on 29 th July, 2003.	A.K.Sachan Secretary
8.	CII	Electricity Act,2003. The year after Progress Made & Challenges Ahead.	A.K.Sachan Secretary



## (A) STATUS OF PETITIONS FILED BEFORE CERC (1.4.2003 TO 31.3.2004)

Carried forward from last year (2002-2003)	No. of Petitions received during 2003-2004	Total	Disposed of	Pending as on 31.3.2004
159	121	280	155	125

#### Details of Petitions disposed of during 2003-2004

Sl. No.	Petition No.	Filed by	Subject
1	20\1999	NTPC	Approval of tariff for Unit-I (500 MW) of Vindhyachal STPS Stage-II.
2	22\1999	NTPC	Approval of tariff for Kayamkulam Combined Cycle Power Project GT-I and GT-II.
3	23\1999	NTPC	Approval of tariff for Faridabad Gas Power Project.
4	19\2000	PGCIL	Tariff for Kaiga transmission system in Southern Region.
5	62\2000	NTPC	Tariff for Talchar Thermal Power Stn for the period from 1.4.2000 to 31.3.2004.
6	109\2000	PGCIL	Approval for payment of fees and charges to RLDC for undertaking load despatchs functions.
7	30\2001	NTPC	Approval of Tariff for Korba STPS - 1.4.2001 to 31.3.2004
8	32\2001	NTPC	Tariff for Vindhyachal STPS -I - 1.4.2001 to 31.3.2004.
9	34\2001	NTPC	Tariff for Ramagundam STPS - 1.4.2001 to 31.3.2004.
10	39\2001	NTPC	Tariff for Singrauli STPS - 1.4.2001 to 31.3.2004.
11	41\2001	NTPC	Tariff for FGU TPS - 1.4.2001 to 31.3.2004.



12	44\2001	NTPC	Tariff for Dadri Gas Power Station - 1.4.2001 to 31.3.2004.
13	46\2001	NTPC	Tariff for Auraiya GPS - 1.4.2001 to 31.3.2004.
14	47\2001	PGCIL	Incentive of WR for 1999-2000
15	48\2001	PGCIL	Incentive of ER for 1999-2000.
16	78\2001	NTPC	Incentive/disincentive for Gandhar GPS and Kawas GPS.
17	89\2001	PGCIL	Transmission Tariff for series capacitors on 220 KV D/C Kishenpur-Pampore transmission line in Northern Region.
18	1\2002	PGCIL	Incentive based on availability of transmission system of Western Region.
19	6\2002	PGCIL	Transmission Tariff for transmission system associated with Anta Project in Nortern Region for period from 1.4.2001 to 31.3.2004.
20	7\2002	PGCIL	Transmission Tariff for 400 KV Central Transmission Project 0 I in Southern Region for the period from 1.4.2001 to 31.3.2004.
21	8\2002	PGCIL	Transmission Tariff for Auraiya Transmission System Project in Northren Region for period from 1.4.2001 to 31.3.2004.
22	9\2002	PGCIL	Transmission Tariff for 400 KV D/C Ramagundum - Chandarpur Transmission System in Southern and Western Region for the period from 1.4.2001 to 31.3.2004.
23	11\2002	PGCIL	Transmission Tariff for Chukha Transmission System in Eastern Region for the period from 1.4.2001 to 31.3.2004.
24	12\2002	PGCIL	Transmission Tariff for Transmission system associated with Farakka (I & II) in Eastern Region for the period from 1.4.2001 to 31.3.2004.
25	13\2002	PGCIL	Transmission Tariff for Singrauli Transmission System in Northern Region for period from 1.4.2001 to 31.3.2004.
26	14\2002	PGCIL	Transmission Tariff for Tanakpur Transmission System in Northern Region for period from 1.4.2001 to 31.3.2004.



27	15\2002	PGCIL	Transmission Tariff for Singrauli - Vindhyachal Transmission System alongwith HVDC back-to-back station at Vindhyachal CRP-I in Northern Region for period from 1.4.2001 to 31.3.2004.
28	16\2002	PGCIL	Transmission Tariff for 400 KV NLC Stage -I Transmission System in Southern Region for the period from 1.4.2001 to 31.3.2004.
29	17\2002	PGCIL	Transmission Tariff for Transmission System associated with Talchar - I STPS in Eastern Region for the period from 1.9.2001 to 31.3.2004.
30	18\2002	PGCIL	Transmission Tariff for Transmission System associated with Uri Hydroelectic Project in Northern Region for period from 1.4.2001 to 31.3.2004.
31	19\2002	PGCIL	Transmission Tariff for Transmissi on System associated with Chamera Hydroelectic Project Stage I in Northern Region for period from 1.4.2001 to 31.3.2004.
32	20\2002	PGCIL	Transmission Tariff for Transmission System associated with Salal Hydroelectric Project Stage I in Norther Region for period from 1.4.2001 to 31.3.2004.
33	21\2002	PGCIL	Transmission Tariff for Transmission System associated with Salal Hydroelectric Project Stage I I in Northern Region for period from 1.4.2001 to 31.3.2004.
34	22\2002	PGCIL	Transmission Tariff for Tran smission System associated with Baira Suil Hydroelectric Project in Northern Region for period from 1.4.2001 to 31.3.2004.
35	23\2002	PGCIL	Transmission Tariff for Jeypore -Talcher Transmission System in Eastern Region for the period from 1.4.2001 to 31.3.2004.
36	25\2002	PGCIL	Transmission Tariff for Kahalgaon Transmission System in Eastern Region for the period from 1.4.2001 to 31.3.2004.



37	26\2002	PGCIL	Transmission Tariff for 400 KV Ramagundum Transmission System at Gazuwaka under CTP augmentation in Southern Region in Souther Region for the period from 1.4.2001 to 31.3.2004.
38	27\2002	PGCIL	Transmission Tariff for Korba Transmission System in Western Region for the period from 1.4.2001 to 31.3.2004.
39	28\2002	PGCIL	Transmission Tariff for Kawas Transmission System in Western Region for the period from 1.4.2001 to 31.3.2004.
40	37\2002	PGCIL	Tariff of ICT at Kishenpur in Norther Region for the period from 1.4.01 to 31.3.04.
41	38\2002	PGCIL	Tariff for Rihand Transmission System in Norther Region for the period from 1.4.2001 to 31.3.2004.
42	39\2002	PGCIL	Tariff for Chamera I - Kishenpur Transmission System in Northern Region for the period from 1.4.2001 to 31.3.2004.
43	40\2002	PGCIL	Tariff for Kaiga-Sirsi Transmission Line in Southern Region for the period from 1.4.2001 to 31.3.2004.
44	41\2002	PGCIL	Tariff for additional 315 MVA, 400/200 KV Station in Sourther Region from 1.4.01 to 31.3.04.
45	42\2002	PGCIL	Tariff for Special Energy Meters for the period from 1.4.2001 to 31.3.2004 in Souther Region.
46	44\2002	PGCIL	Tariff for Moga-Hissar-Bhiwani Transmission System in Northern Region for the period from 1.4.01 to 31.3.04.
47	45\2002	PGCIL	Tariff for 400 KV NLC Stage I Transmission System in Southern Region for the period from 1.4.01 to 31.3.04.
48	46\2002	PGCIL	Tariff for Kakrapar Transmission System for the period from 1.4.2001 to 31.3.2004.
49	47\2002	PGCIL	Tariff for Vindhyachal Stage I Transmission in Western Region for the period from 1.4.01 to 31.3.04.
50	48\2002	PGCIL	Tariff for Bus Reactor Associated with Chanderpur for the period from 1.4.01 to 31.3.04.



		T				
51	49\2002	PGCIL	Tariff for Korba-Bhudhipadar Transmission System in Western Region for the period from 1.4.2001 to			
			31.3.2004.			
52	51\2002	PGCIL	Tariff for 400 KV Jeypore -Gazuwaka Transmission			
			line for the period from 1.4.2001 to 31.3.2004.			
53	52\2002	PGCIL	Tariff for Kayamkulam Transmission System for the			
			period from 1.4.2001 to 31.3.2004.			
54	53\2002	PGCIL	Tariff for augmentation of Central Transmission			
			System for the period from 1.4.2001 to 31.3.2004.			
55	54\2002	PGCIL	Tariff for Transmission System associated with			
			Faridabad GBCCPP in Northern Region for the			
			period from 1.4.2001 to 31.3.2004.			
56	60\2002	PGCIL	Incentive based on availability of transmission system			
			of Southern region for the year 1999-2000 and			
			2000-2001.			
57	61\2002	PGCIL	Incentive based on availability of transmission system			
~ 0	0.01.0.0.0	D.C.CH	of Eastern region for the year 2000-2001.			
58	62\2002	PGCIL	Tariff for Rangit Transmission System in Eastern			
			Region for the period from 1.4.01 to 31.3.04.			
59	63\2002	PGCIL	Tariff for Hathidah river crossing section of 220 KV			
			Biharshariff-Begusarai line in Eastern Region for the			
0.0	0.4\00000	D.C.CH	period from 1.4.2001 to 31.3.2004.			
60	64\2002	PGCIL	Tariff for 50 MVA auto transformer at Malda Sub -			
			Station in Eastern Region for the period 1.4.01 to			
0.4	05/0000	D.C.CVI	31.3.04.			
61	65\2002	PGCIL	Tariff for 63 MVAR line reactor on 400 KV Kolaghat			
			Rengali sub-station in Eastern Region for the period			
00	00/0000	DOOII	from 1.4.2001 to 31.3.2004.			
62	66\2002	PGCIL	Tariff for Vindhyachal Stage I additional			
			transmission system in Western Region for the period			
			from 1.4.01 to 31.3.04.			
63	67\2002	PGCIL	Tariff for Dehri-Karamnasa Transmission System in			
			Eastern Region for the period from 1.4.2001 to			
			31.3.2004.			
64	72\2002	PGCIL	Tariff for transmission system associated with			
			Vindhachal Stage II in Western Region for the period			
			from 1.4.2001 to 31.3.04.			



65	75\2002	PGCIL	Incentive based on availability of transmission system in Northern Region for 1999-2000 and 2000 - 2001.			
66	77\2002	NTPC	Determination of tariff for Vindhyachal STPS Stage-II (2x500 MW) for the period from 1.4.01 to 31.3.04.			
67	79\2002	SRLDC	Maintaining the Regional Grid frequency at 49.0 Hz and above and compliance of RLDC directions.			
68	81\2002	NTPC	Tariff for Faridabad Gas Power Project for the period from 1.4.2001 to 31.3.2004.			
69	85\2002	PGCIL	Reivew of CERC Order dated 27.3.2002 in Petition No.111/2000.			
70	92\2002	NTPC	Review of Order dated 19.6.2002 in Petition No.62/2002.			
71	93\2002	GRIDCO	Review of Order dated 19.6.2002 in Petition No.62/2002.			
72	94\2002	NTPC	Tariff for Gandhar GPS for 1.4.2000 to 31.3.2001.			
73	95\2002	NTPC	Tariff for Dadri Gas Power Station from 1.4.99 to 31.3.01.			
74	100\2002	NHPC	Review of order dated 27.7.02 in Petition No.62/2001 (Tanakpur).			
75	101\2002	NHPC	Review of Order dated 4.7.02 in Petition No.64/2001 (Salal).			
76	104\2002	NHPC	Review of Order dated 26.8.02 in Petition No.60/01 (Chemera).			
77	105\2002	NLC	Fixation of tariff for NLC TPS-I expansion.			
78	107\2002	WRLDC	Overdrawal from the Grid below 49 Hz and non-compliance of direction WRLDC.			
79	108\2002	WRLDC	Security threat to Western Region Grid and non-compliance of direction of WRLDC.			
80	115\2002	PGCIL	Review of order dated 24.8.01 in Petition No.111/2000 and 118/2000.			
81	117\2002	PGCIL	Review of Order dated 19.6.02 in Petition No.9/2000.			
82	119\2002	PGCIL	Review of order dated 24.6.02 in Petition No.39/2002.			
83	125\2002	NTPC	Review of Order dated 23.9.2002 in Petition No.31/2002.			



84	126\2002	NTPC	Review of Order dated 23.9.2002 in Petition No.29/2002.			
85	129\2002	PGCIL	Tariff for Special Energy Meters for the period 1.4.2001 to 31.3.2004 in Western Region.			
86	130\2002	PGCIL	Review of order dated 9.5.2002 in Petition No.54/2001.			
87	133\2002	PGCIL	Tariff of LILO of 400 KV D/C Bogaigaon Malda at Purnea and sub-station at Purnea (New) in Eastern Region from 1.11.2003 to 31.3.2004.			
88	135\2002	PGCIL	Transmission Tariff for LILO of Purnea -Dalkola 132 KV S/C line and Extn. at Purnea sub-station in Easterb Region from 1.1.2003 to 31.3.2004.			
89	136\2002	ASEB	Review of Order dated 25.9.02 in Petition No.56/2002 in respect of Heat Rate Norms of AGBPP and AGGPP of NEEPCO.			
90	137\2002	NTPC	Review of Order dated 24.10.2002 in Petition No.78/2001 (incentive/disincentive).			
91	140\2002	NTPC	Review of order dated 1.11.2002 in Petition No.32/2002.			
92	141\2002	NTPC	Review of order dated 30.10.02 in Petition No.33/2002.			
93	142\2002	NTPC	Review of order dated 10.10.02 in Petition 34/2002.			
94	143\2002	NTPC	Review of Order dated 24.10.02 in Petition No.35/2002.			
95	144\2002	NTPC	Review of order dated 1.11.2002 in Petition No.36/2002.			
96	2\2003	NTPC	Review/Modification in order dated 28.6.2002 in Petition No.77/2001.			
97	5\2003	NHPC	Review of Order dated 1.11.02 in Peitition No.61/2001 (Tariff of Uri HE Project).			
98	7\2003	SJVNL	Generation Tariff of Nathpa Jhakri Hydro Project (16.4.2003 to 31.3.2004).			
99	13\2003	NRLDC	Non-payment of UI charges by MPSEB to Northern Region.			



100	14\2003	WRLDC	Non-payment of UI charges by MPSEB to Western Region.			
101	15\2003	TNEB	Transfer of Power from ER to SR through Power Grid lines to SR constituents.			
102	16\2003	NLC	Combining Stage I & II for TPS II of NLC.			
103	17\2003	NLC	Exclusion of Thermal Power Station II from implementation of TPS II of NLC.			
104	18\2003	TNEB	Reivew of order dated 1.11.2002 in petition No.68/2000 - additional capitalization in respect of Rihand STPS			
105	19\2003	NRLDC	Non-payment of UI Charges by BSEB.			
106	20\2003	NRLDC	Non-payment of UI Charges by J&K to Northern Region.			
107	21\2003	PGCIL	Income accuring from interest on bonds be treated as core activity for Income Tax purposes.			
108	23\2003	APTRANSC O	Review of orders dated 21.1.2002 in Petition Nos.122/2002 and dated 17.2.2003 in Petition No.75/2002.			
109	24\2003	NLC	Treatment of actual generation over the declare capacity by the generation under the ABT Regime.			
110	25\2003	PGCIL	Approval under Regulation-86 from consideration on UPCL in Regional Scheme for Rihand-II Transmission System in Northern Region.			
111	26\2003	NTPC	Allowing combined fuel force adjustment formula under ABT in respect of Gas Station.			
112	27\2003	NHPC	Generation Tariff for Chamera HE Project Stage -II U/C 79(I) of the CERC (Period 1.7.2003 to 31.3.2004)			
113	29/2003	PTC	Application for Grant of Trading License to Power Tradining Corporation.			
114	30/2003	ATIL	Application for Grant of license/permission to undertake inter-state trading in Power.			
115	31/2003	APTRANSC O	Review of Commission's Order dated 17.2.03 in Petition No.132/2002 (Tariff for Talchar HV DC Terminal Stns at Tal char.			



116	34/2003	NLC	Request for postponement of ABT operation for Unit No.1 of NLC Thermal Power Stn.I expension (2x200 MW)			
117	35/2003	NHPC	Non compliance of Commission's Order and provision of IEGC by PGCIL in respect of Uri HE Project for the period from 24.4.03 to 18.5.03.			
118	39/2003	RETPL	Grant of Inter-state trading license to Reliance Energy Trading Pvt Ltd (RETPL).			
119	40/2003	TDTL	Grant of transmission License to Tala-Delhi Transmission Ltd.			
120	42/2003	NERLDC	Implementation of ABT in North Eastern Regime.			
121	43/2003	NTPC	Removing of difficulties faced during ABT implementation (IA No.14/2003 has been treated as Petition as per order dated 11.8.03 in Petition No.2/1999)			
122	47/2003	TNEB	Transmission tariff for the 3rd 315 MVA ICT at Nagarjunasagar for the period 2001-2004			
123	49/2003	NTPC	Notification of Independent Agencies for Project Appraisal.			
124	51/2003	NTPC	Review of Order dated 30.6.2003 in Peition No.23/1999 - Approving tariff from 01.9.1999 to 31.3.2001 for Faridabad Gas Power Station.			
125	52/2003	NTPC	Review of Order dated 30.6.03 in Peition No.81/2002 - Approving tariff from 01.04.2001 to 31.3.2004 for Faridabad Gas Power Station.			
126	53/2003	NRLDC	UI Charges by Utter Pradesh Power Corporation Ltd - non payment of unscheduled.			
127	54/2003	TNEB	Review of Order dated 30.6.03 in Petition No.40/2002.			
128	55/2003	TNEB	Review of Order dated 30.6.03 in Petition No.7/2002.			
129	56/2003	Suo-Motu	Eligibility conditions for grant of power trading licence.			
130	59/2003	NTPC	Review of Commission's Order dated 23.7.03 in Petition No.39/2001. (Tariff for Singrauli STPS - 1.4.2001 to 31.3.2004).			



131	61/2003	UPPCL	Review of Commission's Order dated 23.7.03 in Petition No.39/2001. (Tariff for Singrauli SRPS - 1.4.2001 to 31.3.2004).			
132	62/2003	TNEB	Review of Commission's Order dated 30.6.03 in Petition No.51/2002.			
133	63/2003	TNEB	Review of Commission's Order dated 18.7.03 in Petition No.9/2002.			
134	65/2003	PGCIL	Review of Commiossion's Order dated 18.7.03 in Peitition No.51/2002 - T/Ta riff for 400 KV Jeypore- Gazuwaka - 1.4.2001 to 31.3.2004			
135	67/2003	Suo-Motu	Discussion paper on Terms & Conditions of Tariff			
136	68/2003	NTPC	Review of Commission's Order dated 6.8.03 in Patition No.30/2001 -Tariff for the Korba STPS for the period from 1.4.2001 to 31.3.2004.			
137	69/2003	NTPC	Review of Commission's Order dated 1.8.03 in Petition No.77/2002 - Tariff for Vindhyachal STPS Stage-II for the period from 1.4.2001 to 31.3.2004.			
138	72/2003	HVPN	Review of Commission's Order dated 30.6.03 in Petition No.81/2002 for approval of tariff in respect of Faridabad Gas Power Station.			
139	73/2003	PTL	Approval of methodology adopted for price variation in supply and erection contracts and for the increase in Project Cost on account of escalation in price and quantity variation in respect of the Transmission Lines.			
140	74/2003	NTPC	Review of Commission's Order dated 6.8.03 in Petition No.34/2001 - Tariff for the Ramagundam STPS period from 1.4.2001 to 31.3.2004.			
141	75/2003	KERPL	Interim approval for trading in Electricity and grant of Eelectricity trading license.			
142	78/2003	EEPDCL	Application for license to trade electric power on interstate basis.			
143	79/2003	AEL	Trading in Electricity-Issuance of License			
144	80/2003	GEB	For direction to NTPC for billing of variagble costs for power drawn by GEB from Kawas GPS.			



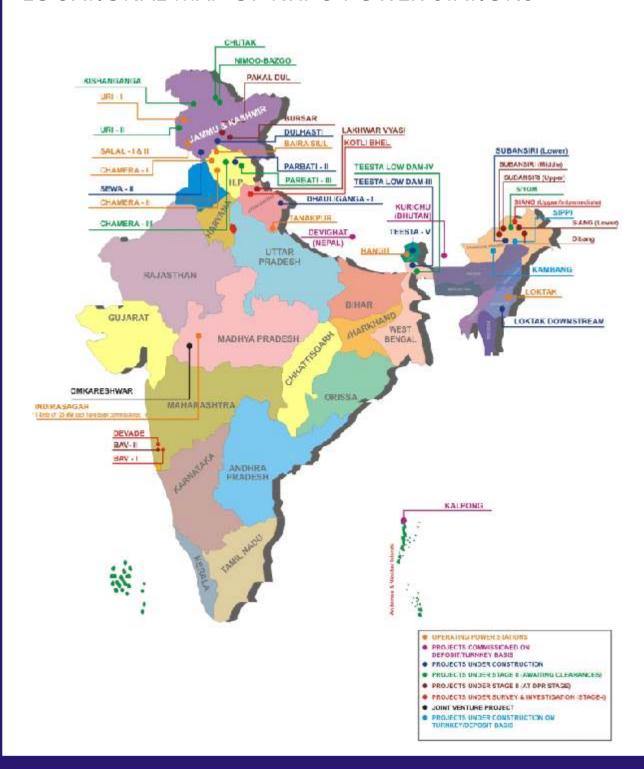
1 4 5	01/0000	DTI	Tout Consumer Consume			
145	81/2003	DTL	Tariff norms for purchase of power from Buderpur			
			Thermal Power Stn by Delhi Transco Ltd.			
146	85/2003	GMR	Application for Grant of Inter-State Trading License.			
147	86/2003	NHDC	Provisional approval of generation tariff of Indira Sagar Project.			
148	87/2003	TPCL	Application for Grant of Inter-State Trading License.			
149	88/2003	NVVNL	To declare NVVNL as "Deemed Licensee" to undertake Trading in Electricity in terms of Section 14 of the Electricity Act,2003.			
150	89/2003	UPPCL	Review of Commission's Order dated 30.10.2002 in Petition No.33/2001 (Tariff for FGU TPS)			
151	92/2003	PTL	Lenders' concerns for financing the transmission line project being implemented by Powerlinks Transmission Ltd			
152	94/2003	NLC	Review of Commission's Order dated 15.10.2003 in Petition No.16/2003 - Combining the Stage I and Stage II of NLC TPS-II for UI purposes under ABT.			
153	98/2003	NHPC	Seeking directions of Hon'ble Commission to the respondents regarding reimbursement of income tax amount to NHPC for the period 1.4.2000 to 31.3.2003 in respect of Loktak HE Project.			
154	99/2003	KPTL	Issuing direction to Powergird in respect of Right of Way and Forest Clearance permit in the excecution of Bina-Nagda-Dehgam 400 KV transmission line.			
155	3/2004	NTPC	Review of Commission's Order dated 6.11.2003 in Petition No.32/2001 approving tariff for the Vindhyachal Super Thermal Power Station Stag-I for the period from 1.4.2001 to 31.3.2004.			

## (B) INTERLOCUTORY APPLICATION BEFORE CERC

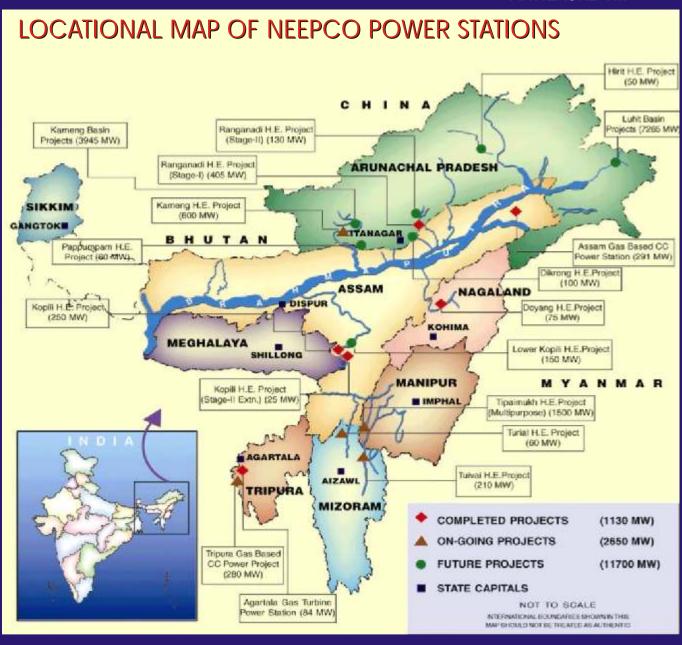
	No. of IA received during the period 2002-3004	Total	Disposed of	No. of IA pending on 31.3.2003
9	80	89	84	5



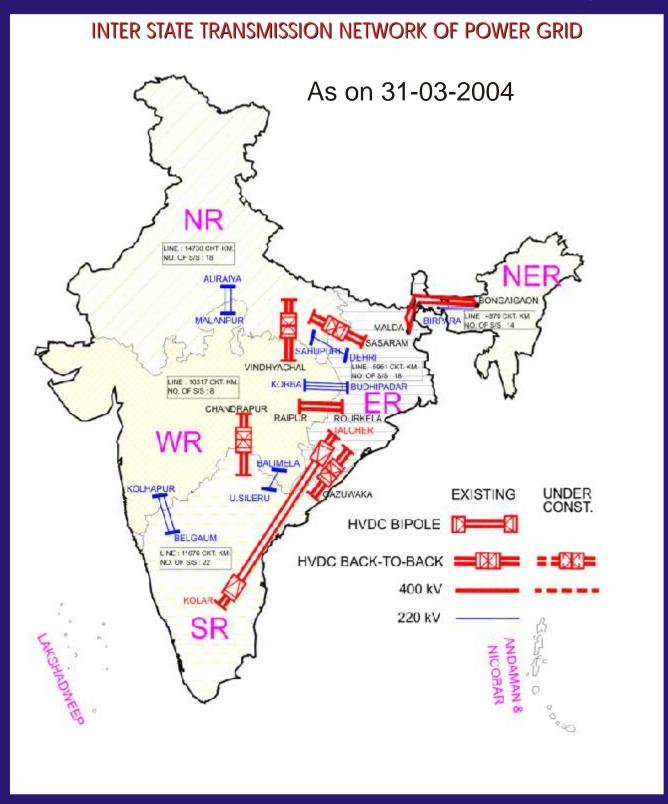
# LOCATIONAL MAP OF NHPC POWER STATIONS



#### **ANNEXURE-VIII**



### **ANNEXURE-IX**





## CENTRAL ELECTRICITY REGULATORY COMMISSION

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