MINUTES OF THE

NINTH MEETING OF THE FORUM OF REGULATORS (FOR)

Venue : **Hotel Crown, Jayadev Vihar Bhubaneswar (Orissa)**

Date : **14th – 15th November, 2008**

List of Participants : **At Annexure-I (enclosed).**

Secretary, CERC/FOR welcomed the participants.

Item No.1 : Confirmation of the minutes of the 8th meeting of FOR held on 26.09.2008 at Khajuraho (M.P):

The minutes of the 8th Meeting of the Forum held on 26th September, 2008 at Khajuraho (M.P) were confirmed. The Forum also perused the Action Taken Report (ATR) and desired that following further actions may be taken by the Secretariat:

i) SERCs may be again requested to expedite the illustrative cases on open access charges for display on the website of the Forum. This would be a important step-forward towards facilitating implementation of open access.
ii) Updated position on the issue of imposition of service tax on transmission charges may be obtained and placed in the next meeting of the Forum.
iii) Legal opinion on the issue of consumer courts intervening in cases under section 126 of the Act may be expedited.

Item No.2: Update on National Electricity Policy/Tariff Policy/RIMS/Open Access on Website

2. The status of receipt of information from SERCs was perused. SERCs assured to send the information in prescribed format to the Secretariat expeditiously. The SERCs also agreed to nominate a nodal officer each for coordination with the Secretariat in the matter of information regarding the implementation of National Electricity Policy, Tariff Policy, RIMS and Open Access

Item No.3 : Presentation by OERC on update on power sector reforms in Orissa with focus on "Implementation of Open Access and Related Issues".

3. A copy of the presentation made on behalf of OERC is enclosed at **Annexure-II.**

Item No. 4 : Discussion on the draft report on Code of Ethics

4. The draft Code of Ethics (copy enclosed at **Annexure-III)** as recommended by the Working Group of the Forum on 'Code of Ethics for the Members of the Electricity Regulatory Commissions' was taken up for discussion. It was noted that the Electricity Act had provisions requiring the Selection Committee to satisfy itself that the person being recommended for appointment did not have any financial or other interest which was likely to affect prejudicially his functions as the Chairperson or Member. The Act also has provisions for and the grounds on which action could be initiated for removal of a Member.

It was agreed that individual Electricity Regulatory Commission may take further action in the matter as considered appropriate.

Item No.5 : Scope of Performance Audit by CAG

5. The Forum discussed the following items as suggested by the Secretariat for 'Performance Audit':

(i) Whether regulations as required under the Act have been notified?
(ii) Status of disposal of petitions – pendency.
(iii) Monitoring of compliance of Standards of Performance (SoP).
(iv) Monitoring of Implementation of Open Access and disposal of OA applications.
(v) Status of constitution/operation of Consumer Grievance Redressal Forum (CGRF).
(vi) Status of consumer advocacy and the Consumer Charter
(vii) Implementation of Multi Year Tariff.

It was felt that the individual SERC may use this as input for considering the scope of performance audit, as and when required.

Item No.6: Responses on Fund Rules of the ERCs.

6. No specific instance was quoted by any of the SERCs about its Fund Rules being restrictive. No further action is required in the matter.

Item No.7: Discussion of the Report of the Ministry of Power on Ring-Fencing of SLDC – Update on the Meeting held in the Ministry of Power on 7th October, 2008 with the SLDC.

7. The Forum noted the recommendations of the Committee set up by Ministry of Power on "Manpower, Certification and Incentives for System Operation and Ring Fencing Load Despatch Centres" and the deliberations on the matter in the meeting convened by the Ministry of Power on 7th October, 2008. The letter dated 4.11.2008 from the Ministry of Power received in the Secretariat on the subject of implementation of the Report of the Committee on "Manpower,

Certification and Incentives for System Operation and Ring Fencing Load Despatch Centres" was also discussed. A copy of the summary of the recommendations of the Committee, the record of discussions of the Committee and the letter dated 4.11.2008 had been circulated before the meeting. After discussions, the following were agreed:

(a) CERC may come out with the regulations on fees and charges to be levied by the Regional Load Despatch Centres. This could be suitably adopted by the SERCs for application to SLDCs.

(b) According to the provisions of the Electricity Act, 2003, the Load Despatch Centres are required to comply with such principles, guidelines and methodologies in respect of wheeling and optimum scheduling and dispatch of electricity as the Appropriate Commission may specified in the Grid Code. Therefore, the 'Standard Operating Procedure' (as envisaged by the Committee) to be adopted by the SLDCs would need to be approved by the Appropriate Commission.

(c) In order to effectively implement the provisions of the open access, there is an urgent need to ring fence the SLDCs by completely isolating their administrative and functional reporting channels from the distribution or trading entities of the State.

(d) Subject to the (a), (b) and (c) above, necessary action may be taken at State level for implementation of the report of the Committee.

(e) Keeping in view the suggestion of the Ministry of Power, the Forum also approved setting up a Forum of Load Despatchers (FOLD) on the lines as indicated in **Annexure-IV**. The Secretariat was directed that a detailed proposal may be obtained from NLDC accordingly and the approval of the Forum on the same may be obtained by circulation.

Item No.8 : Presentation on the World Bank Report on Energy Efficiency And Renovation and Modernization (EE&RM)

8. A copy of the presentation made on behalf of World Bank on the report of the study on "**Energy Efficiency and Renovation and Modernization (EE&RM**)" is enclosed at **Annexure-V.** The study emphasized that the proposals for R&M should be prepared taking into account the perspective of the distribution utility and it should also include the extra costs involved in purchasing the power in short-term during R&M outages. The study team offered to have further interaction with the SERCs which desired so.

It was agreed that the report may be posted on the Web site of the Forum and the ERCs may take appropriate action under their regulations.

Item No.9: Discussion on measures to reduce Demand-Supply Gap – Management of Load Shedding

9. The agenda note circulated by the Secretariat was discussed. It was agreed that the SERCs should direct the distribution utilities to plan in advance the power purchases both in long-term and short-term and not to rely on overdrawl from grid. This could be enforced at the

time of examining and approving the Annual Revenue Requirement (ARR). The advanced planning for power purchases is also expected to improve the reliability of supply.

Item No.10: Discussion on proposals of UERC on treatment of free hydro power

10. A presentation on the subject matter was made by the Chairman, UERC, a copy of which is enclosed at **Annexure-VI**. After discussions, it was agreed that the SERC concerned may take appropriate action under section 86(1)(b) of the Act taking into account the fact that the presently available legal framework does not permit regulation of price of inter-state sale of free power being received by the State Governments from hydro power stations.

Item No.11 : Discussion on validation of AT&C Loss Reduction figures.

11. The Forum concurred to the proposal of the Ministry of Power that the annual AT&C loss figures of various distribution utilities may be compiled and vetted by the Forum. It was desired that the Secretariat may develop a standardized format for collection of information from the utilities and the information submitted by utilities may be got vetted by the concerned SERC before being compiled by the FOR Secretariat.

Item No.12: Discussion on Report of the Task Force on Scheduling, Metering and Settlement of Intra-State Open Access Transactions.

12. The Report of the Task Force was discussed and the following recommendations given by the Task Force were endorsed:

12.1 All open access schedules must be specified in MW (not in terms of energy), specifying the time from and upto which the transaction is scheduled. The point or interface at which the MW figure applies should also be made clear, i.e. whether it is at supplier's end or at buyer's end or at some other intermediate point. Losses upstream of that point or interface would be to the supplier's account, and losses downstream to the buyer's account.

12.2 All open access customers should have meters which record energy for each 15-minute time block. All meters should meet the functional requirements specified in Annexure – 2 to Chapter – 6 of the Indian Electricity Grid Code (IEGC), as per clause 22(2) of the CERC (Open Access in Inter-State Transmission) Regulations 2008.

12.3 CERC has mandated under Regulation 22(1) of its open access regulations referred to above that all Special Energy Meters for intra-State entities should be installed by the State Transmission Utility. It is noted that State utilities are leaving this to the open access customers. In the latter approach, problems of compatibility and overall

12.4 It would be preferable that the States adopt the uniform mechanism for settlement on the lines of the mechanism already in place for inter-state scheme. However, the SERC's could adopt alternative mechanisms after fully examining the pros and cons of such options. But such alternative mechanism should definitely be compatible with the inter-State mechanism.

12.5 Some of the metering requirements specified under CEA (Installation and Operation of Meters) Regulations 2006 go beyond the functional requirements specified in the IEGC by CERC. Many States are procuring meters as per CEA specification, sometimes adding features on their own. This is leading to procurement of meters with different specifications, though the ultimate functional requirements are the same. This aspect may be further got examined by CERC, CEA and POWERGRID.

Item No.13: Training Program on Demand Side Management (DSM), Open Access and Consumer Protection

13. The Forum approved the proposal of the Secretariat to hold training programmes for the officers of the SERCs on Demand Side Management, Open Access and Protection of Consumer Interests, in year 2008-09.

Item No. 14: Other issues:

14. The Secretariat may follow up the proposal for exempting the income of the SERCs from Income-tax. Such dispensation is already available to CERC.

15. The Members of the Forum appreciated the arrangements made by OERC for the meeting.

16. Shri B.K. Das, Chairperson, OERC extended the vote of thanks to the participants. He expressed his gratitude for choosing the State of Orissa and Bhubaneswar the venue of the meeting of the Forum of Regulators (FOR). He also conveyed his deep appreciation to the staff of FOR Secretariat for their assistance in hosting the meeting.

The meeting ended with a vote of thanks to the Chair.

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/ ANNEXURE – I /

LIST OF PARTICIPANTS ATTENDED THE NINTH MEETING

OF

FORUM OF REGULATORS (FOR)

HELD DURING 14TH – 15TH NOVEMBER, 2008

AT "HOTEL CROWN, BHUBANESWAR (ORISSA)

S. No.	NAME	ERC
01.	Dr. Pramod Deo Chairperson	CERC – in Chair.
02.	Shri . Raghotham Rao Chairperson	APERC
03.	Shri B.K. Halder Chairperson	BERC
04.	Shri S.K. Misra Chairperson	CSERC
05.	Dr. P.K. Mishra Chairperson	GERC
06.	Shri Bhaskar Chatterjee Chairperson	HERC
07.	Shri K.B. Pillai Chairperson	J&KSERC
08.	Shri Mukhtiar Singh Chairperson	JSERC
09.	Shri K.P. Pandey Chairperson	KERC
10.	Dr. J.L. Bose Chairperson	MPERC
11.	Shri Vinay Kohli Chairperson	MSERC
12.	Shri B.K. Das Chairperson	OERC
13.	Shri Jai Singh Gill Chairperson	PSERC
14.	Shri S. Kabilan Chairperson	TNERC

15.	Shri V.J. Talwar Chairperson	UERC
16.	Shri Prasad Ranjan Ray Chairperson	WBERC
17.	Shri Hemam Bihari Singh Chairperson	JERC for Manipur & Mizoram
18.	Dr. V.K. Garg Chairperson	JERC for Goa & all UTs except Delhi
19.	Shri J.P. Saikia Member	AERC
20.	Shri A. Velayutham Member	MERC
21.	Shri K.L. Vyas Member	RERC
22.	Shri P.N. Pathak Member	UPERC
23.	Shri Alok Kumar Secretary	CERC
24.	Shri Sushanta K. Chatterjee Deputy Chief (Regulatory Affairs)	CERC

ORISSA ELECTRICITY REGULATORY COMMISSION

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UPDATE ON ORISSA POWER SECTOR REFORMS WITH FOCUS ON OPEN ACCESS AND RELATED ISSUES

A Presentation at the 9Th Meet OF THE FORUM OF REGULATORS

By

Shri S K Jena
Commissioner, OERC

15th November 2008
Bhubaneswar

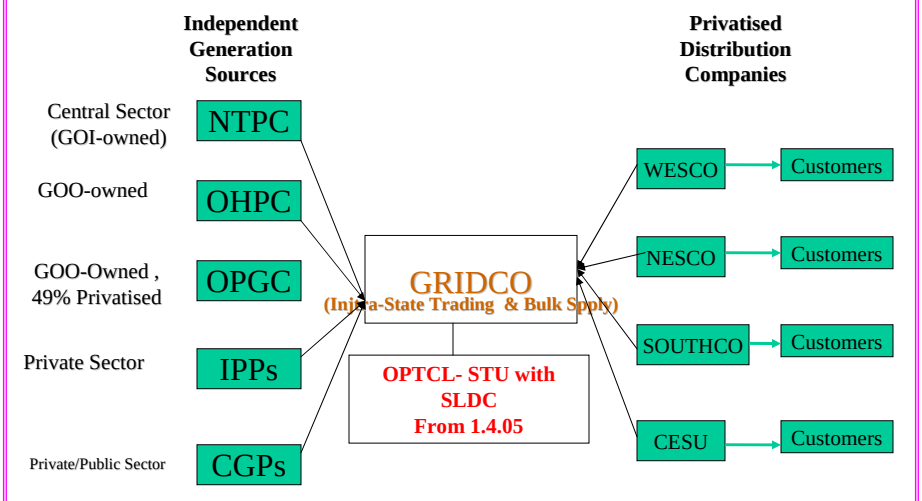
Reform & Restructuring in Orissa

- Orissa is the pioneer of Power Sector Reform in India
- Enactment of OER Act, 1995 (Act 2 of 1996)
- OERC became functional on 01.08.1996
- Divisionalisation, Corporatisation and Privatisation of OSEB/GOO assets -
  - 01.04.1996 - Grid Corporation of Orissa functions as a Licensee for Bulk Supply, Transmission and Distribution.
  - 01.04.1996 – All Hydro Generating Assets of Govt. and OSEB transferred to Orissa Hydro Power Corporation.
  - 49% dis-investment in OPGC (Ib thermal power station, a Govt. of Orissa Undertaking) to AES in January, 1999.
  - Participation of private sector in distribution business with this dis-investment of 51% of shares in four subsidiaries of GRIDCO namely, WESCO, SOUTHCO. NESCO and CESCO, with effect from 01.4.99/01.9.99.

Reform & Restructuring of Power Sector

- Orissa Power Transmission Corporation Ltd. (OPTCL) formed on 01.04.2005 and declared STU in charge of intra state transmission and function of SLDC.
- GRIDCO became a deemed trading licensee from 10.06.2005.
- Lisence of CESCO for supply of power in Central Zone of Orissa revoked on 1.4.2005.
- Unsuccessful attempt for sale of CESCO's utility.
- Commission framed a scheme under Section 22 of the Act, 2003 and the Utility styled as "(Central Electricity Supply Utility (CESU)"is run by a Management Board.
- Thus, Licensing, de-licensing/processing for sale of utility and operation of utility have been attempted.

Present Structure of the Sector



Reform in Retrospect

- All the loans and liabilities of erstwhile OSEB were transferred to GRIDCO and OHPC to the tune of Rs. 1210 Cr and Rs. 265 Cr respectively.
- The original asset value of GRIDCO at Rs. 1103 cr was upvalued by Rs. 1194 Cr. pushing the total assets of GRIDCO to Rs. 2297 Cr.
- OHPC assets were upvalued by Rs. 766.20 Cr. making the total assets value Rs. 1246.20 Cr.
- This upvaluation led to rise in the cost of hydro power as well as in the cost of transmission and distribution.
- The State Govt. stopped all subsidy/subvention in the post-reform period including grants.
- The HT/EHT load projections made in the SAR did not materialize as expected.
- The State was struck by natural calamities like Super Cyclone, Flood followed by Drought in 1999, 2000 and 2001 with consequential devastation of distribution and transmission assets.
- The real T&D losses got unveiled due to privatisation.
- The T&D sector continued to bear financial liability due to interest burden on past loans and liabilities and large scale investment for improvement of quality of power.
- OER Act a pre-curser to other State's Act, ERC Act, 1998 and Electricity Act, 2003.

Mid-Course Correction

- Why it became necessary ?
  - Impact of Upvaluation of Assets
  - Optimistic load forecast at pre-reform state – Non-maturing of HT and EHT loads due to slump in steel and aluminium market.
  - Unrealistic T&D loss assessment based on OSEB records
  - Super cyclone, 1999
  - Severe flood, 2000
  - Draught, 2001
  - High tariff of NTPC stations
  - Absence of transitional support by the Govt.
- For making the sector financially viable Kanungo Committee was formed to give recommendation for Mid-Course Correction.
- As per the recommendation of the said Committee
  - Effect of up-valuation of assets was kept in abeyance – Impact reduction in cost of hydro tariff due to change in depreciation, O&M expenses, Return on Equity for five years. (Still continuing)
  - ROE was not allowed to Govt. Companies for the equity infused before 01.04.1996.
  - State Govt. was to mobilize Rs. 3240 Cr to meet the cash gap in the period from FY 2001-02 to FY 2005-06 (which never came).
    - It was left to the Commission to guide the sector to be self sustainable.

Important Regulations, Codes, Standards & Rules

Sl. No.	Name of the documents	Approved in	
		Under OER Act, 1995	Under Electricity Act, 2003
1.	OERC (Conduct of Business) Regulations	November, 1996	May, 2004
2.	OERC Distribution (Conditions of Supply) Code	September, 1998	May, 2004
3.	OERC (Licensee's Standards of Performance) Regulations	Sept, 1998 [Earlier it was OERC (Consumers Right to Information & Standards of Performance) Regulations, 1998]]	May, 2004

Important Regulations, Codes, … Contd.

Sl. No.	Name of the documents	Approved in	
		under OER Act, 1995	under Electricity Act, 2003
4.	OERC (Grievance Redressal Forum and Ombudsman) Regulations	Bijli Adalat was operating in the DISTCOs vide OERC Order dt.16.11.98	May, 2004
5.	OERC (Terms & Conditions for Determination of Tariff) Regulations		June, 2004
6.	OERC (Terms & conditions for Open Access) Regulations, 2005		June, 2005

Important Regulations, Codes, … Contd.

Sl. No.	Name of the documents	Approved in	
		OER Act, 1995	Electricity Act, 2003
7.	OERC (Determination of Open Access Charges) Regulations		July, 2006
8.	Orissa Grid Code (OGC) Regulations	September, 1997	July, 2006
9.	OERC (Intra-State ABT) Regulations		February, 2008

Important Regulations, Codes, … Contd.

Sl. No.	Name of the documents	Approved in	
		OER Act, 1995	Electricity Act, 2003
10.	Complaint Handling Procedure	November, 1998	December, 2007
11.	Code of Practice on Payment of Bills	January, 2000	December, 2007
12.	Consumer Rights Statement	January, 2000	December, 2007
13.	Distribution System Planning and Security Standards, Operating Standards	May, 1998	Continuing
14.	Transmission Planning & Security Standards, Power Supply Planning & Security Standards, Transmission Operating Standards and Power Supply Operating Standards.	March, 1998	Continuing

Important Regulations, Codes, … Contd

Sl. No.	Name of the documents	Approved in	
		OER Act, 1995	Electricity Act, 2003
15.	Distribution Planning & Operation Code	November, 1998	Continuing
16.	Licence Condition for DISTCOs	1997 Amended in March, 1999	October, 2006
17.	Licence Condition for TRANSCO	1997 Amended in March, 1999	October, 2006

Standard of the performance of the Licensees &Technical Audit for Improvement of Quality of Supply

- **Introduction of guaranteed & overall Standards of Performance**
  - **Performance Standards published annually**
  - **Vigorous monitoring of licensees performance**
  - **Proceedings conducted by Commission for non-compliance of GRF/Ombudsman orders**
  - **For sample verification of the authenticity of the data, the consumer groups has been appointed by the Commission.**
- **Appointment of Technical Experts by the Commission since 2007 to enquire in to the power supply problem in the areas of the Transmission & Distribution Licensees, Generating Stations, SLDC and Power House Switchyards and recommending suitable measures for improvement of the system.**

Technical Audit of the performance (Contd...)

- **The reports submitted by the Enquiry Teams have been analyzed by the Commission for evaluation of the fund/manpower/resources/materials required to improve the system. Suitable directions have been given to the Licensees to take action in a time-bound manner.**

- **Further the Commission directed the Distribution Licensees to segregate the Financial .Commercial and Technical activities, so as to improve the operation and maintenance of the system.**

Electricity Tariff In Orissa

- **Regular approval of annual revenue requirement and issuance of tariff order since 1998.**

Pre-reform		Post-reform	
07.09.93	28.58%	21.05.96	17%(GOO)
16.07.94	15.73%	01.04.97	10.33%
05.01.95	17.47%	01.12.98	9.3%
		01.02.2000	4 – 5%
		01.02.2001	10.23%

- **Thereafter it has remained static except for minor changes.**
- **Adoption of long term tariff strategy including introduction of multi year tariff for the first control period 2003-04 to 2007-08**
  - **for transparency and predictability**
  - **Controllable uncontrollable factors defined.**
  - **Annual tariff exercise to continue**
- **Truing up exercise for 03-04 to 07-08 to be finalised**
- **Business Plan for the 08-09 onwards for DISTCOs and OPTCL in progress.**

Electricity Tariff… Contd.

- OERC has adopted differential BST since 1999-00 depending on consumer mix of DISTCOs in order to maintain uniform RST.
- Rationalization of Tariff:-
- Voltage based and cost based
- Reduction of cross subsidy
- Higher rise in tariff for subsidized category (LT)
- Minimal or no increase for subsidizing category (EHT)
- Abolition of Monthly Minimum energy Charge

  Reduction of cross-subsidy. (All tariff is now within +/- 20% of the average cost).
- Introduction of Time of Day (ToD) tariff for all three phase consumers
- Quantification of T&D loss and benchmarks in tariff for restricting loss.
- Reduction in tariff for agro-industrial consumers at par with agriculture and irrigation (cold storage, pisciculture, horticulture, poultry and animal husbandry and sericulture etc.
- In real terms overall tariff in 08-09 is down by 26.38% compared to 1995-96.

Electricity Tariff… Contd.

- Deficiency
  - Poor collection Efficiency of DISTCOs have created a perennial problem of cash flow
  - ineffective steps for disconnection of power supply due to non-payment
  - Unauthorised use of electricity and lack of state's support for theft prevention coupled with licensee's inability
  - Inadequate investment for system improvement
  - Results in high level of distribution loss specifically at LT
- OERC target 100% energy audit at DT level, consumer indexing, pole scheduling, for fixation of responsibility and accountability
- Large scale formation of franchisees with people's participation through user Association, Co-operative Society, Self-Help Groups

Financial Performance of the Orissa Power Sector as a whole i.e.OPGC, OHPC, GRIDCO, OPTCL and all DISTCOs (Rs.in cr)

1996-97 :	-120.54
1997-98 :	- 175.17
1998-99 :	- 410.60
1999-00 :	- 234.01
2000-01 :	- 397.99
2001-02 :	- 289.03
2002-03 :	- 788.67
2003-04 :	268.81
2004-05 :	164.98
2005-06 :	115.26
2006-07 :	300.83

Grievance Redressal

- **Alternate Dispute Resolution forum in OERC in 1998**
- **Creation of 12 Grievance Redressal Fora and 2 Ombudsman to dispose of consumer complaints under Act, 2003.**
  - **Inspections of GRF done by Commission officers**
  - **Training & workshops held for Presidents/ Members of GRF/Ombudsman**
- **SAC representing cross-section of consumers in state constituted - Frequent Meetings are held for constructive advice**
- **State Co-ordination Forum formed by Govt. of Orissa - Chairperson & Members of OERC are Chairperson and Members of Forum**
- **District Committees formed by G.O.O.**

Consumer Education

- Direct consumer interface programs
- Print & audio-visual campaign
- Publication of FAQs English and Oriya, booklets & brochures
- Translation of regulations into local languages
- Compilation of Regulations and Tariff Orders published in English and Oriya

Training & capacity building

- Training for Distcom staff by OERC on Regulations/Electricity Act, 2003
- Gramsat used to sensitise senior government functionaries on state power sector issues
- State wide Consumer Satisfaction Survey
- State level workshop on consumer rights
- Approval of Consumer Service Documents of Distcos and their icence conditions
  - Consumer Rights Statement
  - Complaint Handling Procedure
  - Code of Procedure on Payment of Bills
- Consumer counsel engaged for analyses and presentation of Tariff applications for FY 2007- 08 & FY 2008- 09

IT Solutions for Consumers

- First website in India power sector created in 1998
- Development of Regulatory Information Management System in 2005
- Case Tracking through OERC web portal in 2006
- OERC becomes E-Commission in 2007
- OERC wins IDG Media business excellence award for innovation in IT solutions

Consumer Complaints & service improvement

- Consumer service is not upto expectation and requires much higher level of effort by the distribution licensees.
- Distcoms to self regulate in maintenance of standards
- Automatic compensation to be dispensed for violation of standards
- Empowerment of GRFs/Ombudsmen for their effective functioning
- Massive consumer awareness programmes through Print/Audio-Visual media
- Engagement of consumer counsel in PPA/License/consumer related Proceedings (OERC has been appointing consumer counsels in the last two tariff hearings.
- Follow up on training of field staffs of Distcoms & consumer organisations
- Frequent consumer interface & networking with consumer right groups
- Implementation of web based Complaint Analysis & Tracking System at GRFs & Ombudsmen's offices
- Development of Datawarehouse for the Orissa Power Sector
- Establishment of five (existing)plus 29 (notified) Energy Police Stations
- Time bound supply improvement Direction

Self sufficiency of the Power Sector

- No hike in tariff since 01.02.2001.(minor change)
- Completion of Upper Indravati Project – 19.04.2001(Hydro tariff raised to get World Bank loan for 600 MW
- Improved Plant Load Factor of TTPS (PLF improved from 33% to 89%).
- Massive T&D system upgradation
- Revenue from sale of TTPS
- Revenue from disinvestment of OPGC
- Dividend from OPGC
- Revenue from disinvestment of DISTCOs
- Increased collection of Electricity Duty

Self Sufficiency of the Power Sector

- No investment by the State for infrastructure development – Resources released for other sectors' development.
- AT&C loss gone down from 56.71% in 1999-00 to 40.9% in 2007-08.
- Sector as a whole is profit making i.e. OPTCL/GRIDCO/OPGC/OHPC.
- Cash profits for WESCO/NESCO raising hopes for a self sustainable power sector.

Recent Initiatives

- OERC has directed GRIDCO to purchase power from renewable sources upto 3% of the total purchase during FY 07-08 to go up @.5% per annum for each subsequent year to reach a level of 5% by the year 2011-12. For pricing cost plus approach is being adopted.
- OERC has floated a Consultative paper on harnessing renewable energy and in the process of finalizing tariff for those sources.
- OERC is in the process of finalizing transmission pricing based on voltage, direction and distance of transmission.
- The Commission has finalized Open Access Charges including surcharge for OA consumers.

Recent Initiatives… (contd)

- The Commission have recognized regulatory asset of distribution license and allowed amortization of the same in phased manner as a pass through in revenue requirement.
- The Commission passed order on securitization of outstanding liability where in the DISTCOs shall clear the liability of GRIDCO within a period of 10 years, without putting burden on the retail tariff.
- The Commission have directed the DISTCOs to conduct receivable audit by engaging independent Chartered Accountant firms.
- For finalising the revenue requirement the Commission conducts Truing Up Exercise of the licensee on the basis of Audited Actual.

Recent Initiatives… contd…

- OERC has directed SLDC to file ARR for finalization of SLDC charges.
- ARR filed for SLDC by OPTCL for the 08-09 was found to be incomplete.
- Directed to file SLDC charges in complete shape from 09-10 onwards.
- Intra-State ABT Regulation, 2007 has come into force w.e.f. 14.02.2008. (not yet implemented)

Regulations for Open Access

- OERC (Terms and Conditions for Open Access) Regulation, 2005 effective from 6th June, 2005. (as amended by Orissa Legislative Assembly)
- OERC (Determination of Open Access Charges) Regulation, 2006 effective from 6th June, 2006.
- Wheeling charges and surcharges applicable to Intra-State Open Access customers for use of Intra-state transmission / distribution system effective from 01.04.2008 have been determined.

Phasing of Open Access

- For consumers seeking open access to avail supply of electricity from a generating company, Open Access shall be permitted in following phases:

Phase	Eligibility criteria	Commencement date
1	Requiring power exceeding 5 MW	April 1, 2008
2	Requiring power exceeding 2 MW	October 1, 2008
3.	Requiring power exceeding 1 MW	January 1, 2009

- Consumers seeking open access to avail supply of electricity from any licensee other than the distribution licensee of their respective area of supply, the nodal agency shall permit open access shall be permitted in following phases:

Phase	Eligibility criteria	Commencement date
1.	Requiring power exceeding 5 MW	August 1, 2005
2.	Requiring power exceeding 2 MW	April 1, 2006
3.	Requiring power exceeding 1 MW	April 1, 2008

- Open access to consumers with power requirement not exceeding 1 MW shall be allowed in due course.

Application Fee & Other Charges

- Non-refundable application fees of Rs. One lakh per MW for transmission access and Rs.50,000 per 500 KW for distribution access are payable by LTOA consumers. (Amendment by OLA has been challenged by OERC in the High Court).
- A non-refundable application fee of Rs. Five thousand is payable by STOA consumers.
- The following Open Access Charges are payable by Open Access customers for use of Intra-State transmission and / or distribution system:
  - Transmission/wheeling Charges
  - Surcharge
  - Additional Surcharge
  - Unscheduled Interchange Charge
  - Scheduling & System Operation Charges
  - Reactive Energy Charges
  - Charges for Short-Term Access through Bidding
  - Miscellaneous Charges

Open Access Charges

- Currently LTOA customers pay Rs. 5040/MW/day towards transmission charges.
- STOA customers pay @ 25% of the LTOA transmission charges. i.e. Rs. 1260/MW/day.
- STOA customers pay Rs. 1000 per day or part thereof towards scheduling and system operation charges.
- Surcharges have been determined for HT & EHT Open Access Customers separately.
- Additional surcharge has not been levied for the time being as pertinent situation has not arisen.
- Reactive energy charges for OA customers have not yet been determined and shall be finalized shortly.

Surcharge for Open Access

Surcharge for FY 2008-09 at HT

Wheeling ch. p/u	Load Factor %	100%	90%	80%	70%	60%	50%	40%	30%	20%
	Tariff (HT) P/U	291	299	309	321	338	361	376	401	452
	Surcharge p/u									
52	WESCO	47	54	64	77	94	116	132	157	208
64	NESCO	69	77	87	100	117	139	154	180	231
85	SOUTHCO	108	116	125	138	155	178	193	218	287
74	CESU	84	92	102	115	132	154	170	195	246

Surcharge for FY 2008-09 at EHT

Wheeling ch. p/u	Load Factor %	100%	90%	80%	70%	60%	50%	40%	30%	20%
	Tariff (EHT) p/u	276	285	295	308	326	351	366	391	442
	Surcharge p/u									
21	WESCO	98	106	117	130	148	173	188	213	264
21	NESCO	130	139	149	162	180	205	220	245	296
21	SOUTHCO	185	194	204	217	235	260	275	300	351
21	CESU	154	162	173	186	204	228	244	269	320

Present Status of Open Access

- Orissa Legislative Assembly has amended the OERC Open Access Regulation and thereby increased the application fees to Rs. 1 Lakh per MW for Long-Term transmission access and Rs. 50,000 per 500 KW for Long-Term distribution access.
- The said amendment envisages that allocation of capacity for Long-Term Open Access may be done after necessary concurrence of the Govt.
- NALCO and IMFA have been two LTOA customers for transmission system since pre-reform era.
- Presently M/s Nababharat Ltd. is the only Short-Term Inter-State Open Access customer using the transmission system of STU.
- As reported no pending Short-Term Open Access application with SLDC.
- OERC has taken all possible measures like publishing Regulations, approving Open Access documents and various charges of open access to operationalize open access.

Present Status of Open Access… (Contd)

- Still then the number of consumers seeking open access has been very few as of now.
- All the STOA applications for inter-State Open Access have been allowed.
- No intra-State application for STOA or LTOA received by SLDC.
- 64 MW of power has been allowed to Inter-State Open Access in favour of M/s. Bhusan Steel and Power Ltd. in 2005 – 06.
- Inter-State Open Access is allowed to M/s. Nav Bharat Ventures Ltd. for 45 MW of power since April, 2008.
- Generally the status of the applications is conveyed to the applicant within three days by SLDC as per the Regulation.
- Denial of OA by SLDC in some cases was due to non-compliance of SCADA and other provisions of Indian Electricity Grid Code (IEGC) and Orissa Grid Code (OGC).
- Relaxation under Clause 1.8 of OGC in the OERC Order dtd. 13.03.08 for SCADA and PLCC.

CGP Power Pricing Policy

- GRIDCO /DISTCO has to procure firm power (3 to 6 months) thorough competitive bidding - Can ask for peak and off peak price.
- Maximum bid price upto 110% of cost of generation could be accepted for consumption by state utilities.
- Beyond that price could be accepted for trading
- CGPs have the liberty of selling power to OA customers.
- Non-firm power (for a period less than 3 months) maximum price 75% of the lowest cost of firm power determined through bidding for firm spply.
- Inadvertent power (power injection without giving day ahead schedule) would be price equal to the full cost of hydro power.
- No payment for any kind of injection firm, non-firm or inadvertent at frequency of 50.4% or more maintaining grid discipline.
- CGPs who have obtained land, water supply, and other benefits at concenssional rates by the state, the enforcement of contract to be addressed by the state.
- OERC had given permission to CESU for purchase of power from CGP which is under challenge by GRIDCO in the High Court of Orissa.

Vision Ahead

- Improved quality of supply and consumer service at reasonable tariff.
- Bringing in 13 nos. of IPPs of 16000 MW of capacity.
- Strengthening of T&D system for massive rural electrification.
- Encouraging renewable sources of energy including small hydro.
- Suitable technological up-gradation and design of an IT enabled system so that the quality of service and financial viability can be improved upon.
- A movement for Distribution Franchisees through public participation

END OF SHOW

THANKS FOR YOUR ATTENTION

Regulatory Issues

- **Laying of Regulations SERC - Amended by the State Legislative Assembly has been challenged by OERC in the Orissa High Court.**
- **Difficulties of the Utilities for approaching Ombudsmen against the order of their own GRF needs a thinking.**
- **Relaxation of the provisions of Income Tax to the State Commissions as allowed to the CERC.**
- **Income of all ERC funds to be deposited in Head-of-Account controlled by the concerned Govt. and receipt of funds by the State Commission.**
- **Appointment of Staff -Nature and Number of Employees of the Commission are controlled by the appropriate government. This needs a review**

END OF SLIDE SHOW

THANKS FOR YOUR ATTENTION

FORUM OF REGULATORS (FOR)

REPORT OF THE WORKING GROUP

ON

"CODE OF ETHICS FOR THE MEMBERS OF

THE ELECTRICITY REGULATORY COMMISSIONS"

SEPTEMBER, 2008

FORUM OF REGULATORS (FOR)
Sectt: C/o Central Electricity Regulatory Commission (CERC)
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CODE OF ETHICS

1. INTRODUCTION

1.1 Formation of Working Group:

In the fourth meeting of Forum of Regulators (FOR) dated 23rd to 26th July, 2006 held at Leh, J&K, it was generally felt that it would be advisable to evolve a Code of Ethics for the Regulators but that it should ideally be developed in-house by the 'FOR'.

In the 'FOR' meeting held on 13th June, 2008, it was decided to constitute a Working Group on 'Code of Ethics'. Working Group was constituted consisting of the following members:

Chairman of the Working Group
Chairperson, Central Electricity Regulatory Commission (CERC)

Members
Chairperson, Chhattisgarh Electricity Regulatory Commission (CSERC)

Chairperson, J&K Electricity Regulatory Commission (J&KSERC)

Chairperson, Tamil Nadu Electricity Regulatory Commission (TNERC)

1.2 Approach adopted by the Working Group:

1.2.1 The Group studied the literature survey by TERI on 'Code of Ethics'. Minutes of the meeting held on 5th August, 2008 at New Delhi to discuss the issues arising out the literature survey, are enclosed as **APPENDIX-I**.

1.2.2 The Group after detailed deliberations recommended a Code of Ethics. The Code of Ethics for the Members of the Electricity Regulatory Commissions as evolved by the Working Group is enclosed at **APPENDIX-II**.

APPENDIX-I

MINUTES OF THE MEETING OF THE FOR WORKING GROUP

ON

"CODE OF ETHICS"

Venue : New Delhi

Date : 5th August, 2008

Members Present :

(1) Dr. Pramod Deo, Chairperson, CERC/FOR
(2) Shri A.K. Basu – As a special invitee
(3) Shri S.K. Mishra, Chairperson, CSERC
(4) Shri S. Kabilan, Chairperson, TNERC

Secretary, Forum of Regulators and Deputy Chief (RA), CERC were also present in the meeting for assisting the Working Group.

2. Initiating the discussion, Secretary, FOR briefed the Working Group about the study report submitted by TERI on 'Code of Ethics for Regulators in India's Electricity Sector'. This study was assigned to TERI by the Forum.

It was recalled by the Working Group that TERI was asked by the Forum to survey and compile the current practices within the country and globally relating to the code of ethics for members of the regulatory bodies and other similar organizations. Drafting the code of ethics was not within the mandate given to TERI.

3. A view was expressed in the meeting that the recommendations of the TERI study may not be fully relevant for the Indian context and that the code of ethics might have potential of being used as a tool for victimization, particularly of the members of the SERCs. It was suggested that the action by the regulators in the matter should be in line with the practice being followed by the judiciary in our country.

4. After detailed discussions, it emerged that the Chairpersons and Members of the Electricity Regulatory Commissions were public servants. Further, there was a need to have a code of ethics in view of the fact that some of the SERCs are now regulating private sector utilities. There was a broad consensus that a self

regulated code of ethics would be desirable to enhance the credibility of the regulatory system in public.

5. The Working Group thereafter proceeded to draft a suggested code of ethics. The inputs provided by the study report of TERI were also duly considered. The draft Code of Ethics as developed by the Working Group is enclosed at Annexure.

6. The Working Group recommended that this report of the Working Group along with the annexure may be placed before the Forum for consideration and approval.

7. The meeting ended with vote of thanks to the Chair.

****

APPENDIX-II

Code of Ethics for the Members of the Electricity Regulatory Commissions

***

1.0 Preamble

The Code of Ethics for the Electricity Regulatory Commissions, although not exhaustive, is intended to state basic standards that should govern the conduct of all commission members (members include Chairperson) and to provide guidance to assist them in establishing and maintaining high standards of regulatory and personal conduct. Intrinsic in the provisions of the following Code of Ethics are the assumptions that Commission Members, individually and collectively, must respect and honour the Commission office as public trust, and enhance and maintain confidence in the regulatory system.

2.0 The role of the Commission Chairperson

2.1 The chairperson has particular responsibility, other than the statutory responsibilities, for providing effective strategic leadership on matters such as:

- Formulating the Commission's strategy for discharging its statutory duties
- Representing the views of the Commission to the general public
- Running the Commission efficiently

2.2 The chairperson will ensure that the Commission meets at regular intervals throughout the year in accordance with the Conduct of Business Regulations and that the decisions of the meetings are properly recorded.

2.3 Communications between the Commission and the Ministry or Department will normally be through the chairman except where the Commission has agreed that an individual member should act on its behalf.

The main point of contact between the Commission and the Ministry on day-to-day matters will be the Secretary of the Commission.

2.4 The chairperson will ensure that all members (including the chairman) of the Commission, when taking up office, are fully briefed on their duties, rights and responsibilities.

3.0 Responsibilities of Commission Members

Individual Commission member should be aware of his (her) wider esponsibilities as members of the Commission. He/she should follow the principles of public life such as integrity, objectivity, accountability, transparency and leadership. The Commission members must:

- Comply with this Code of Ethics,
- Act in good faith and in the best interest of the public body,
- Not seek to use the opportunity of public service to promote their private interests.
- Not misuse information gained in the course of their public service for personal gain or for political purpose
- Declare publicly any private interests which may be perceived to conflict with their public duties; and;
- Should follow requisite principles of transparency and consultations.

4.0 Guidelines on acceptance of gifts

4.1 The receipt of gifts by members of the Commission from those with whom they have official dealings must be governed by the highest standards.

The term "gift" includes any benefit, which is given to a member of the Commission free of charge or at less than its commercial price. Gifts of nominal value (as prescribed in the Conduct Rules for Group A officers of the Central Government) may be accepted and retained.

4.2 Members of the Commission may not solicit gifts, directly or indirectly.

4.3 Members of the Commission may not approach any business with which they have contact through their official duties seeking sponsorship or support for any club, association, trade union or other organisation.

5.0 Handling conflicts of interests

5.1 The chairperson and other Commission members should declare, any personal or business interests which may conflict with their responsibilities as commission members.

5.2 The Chairperson and the members, at the beginning of every year, should submit a return in sealed covers of their immovable properties to the Commission.

5.3 The members of the Commission should not participate in the discussion or determination of matters in which they have a direct pecuniary interest.

6.0 Personal liability of Commission members

Any legal proceedings initiated by a third party are likely to be brought against the Commission. In case any such proceedings are initiated against the chairperson or other individual Commission member and such individual Commission members have acted honestly and on good faith should not be required to meet out of their own personal resources, any personal civil liability which is incurred in execution or purported execution of their Commission functions. This is in keeping with the general dispensation that no suit, prosecution or other proceedings shall lie against any public servant for anything done or in good faith purported to be done in course of his duties.

7.0 Transparency and responsiveness

The Commission members shall conduct all their dealings with the public in a transparent manner. This should include:

- Ensuring that all important documents of the Commissions are in public domain.
- Where practical and appropriate, holding open hearings and consultations.
- Issuing orders in time and ensuring that the orders are reasoned.

8.0 Interaction with the media

8.1 It is the chairperson of the Commission who should interact with media. In any case, members should consult the chairperson before interacting

with media and in all cases, should not express views at variance from agreed Commission policy.

8.2 Members should avoid publicly stating personal opinions on matters where the Commissions policy has not been determined, but is pending. Otherwise, personal views may be expressed so long as it is made clear that the member is speaking or writing in a purely personal capacity and stating his or her own private opinion.

9.0 Political activity

The members of the Commission shall abstain from taking part or engaging in political activities. The members shall not occupy any paid or unpaid posts in political party.

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Annexure-IV

Forum of Load Despatchers (FOLD)

Membership: - National Load Despatch Centre (NLDC)
Regional Load Despatch Centers (RLDCs)
State Load Despatch Centers (SLDCs)

Secretariat: - National Load Despatch Centre (NLDC)

Function:

i. Technological Excellence
ii. Harmonization of practices
iii. Reliability Standards
iv. Ancillary Services
v. Issues on training and certification
vi. Standard Operating Procedures
vii. International experience sharing

- To report half yearly to FOR
- To deliberate on technical issues referred to it by FOR

Detailed proposal on these lines shall be ‘circulated’ for approval.

Incentivising Energy Efficient Renovation & Modernization of Thermal Power Plants

Summary presentation

Constraints and Barriers – Premise

- Large population of relatively inefficient generating plants exist
- Range of possibilities exist

Benefits	Costs	Decision
• Improved Heat Rate and Auxiliary consumption • Increased output • Extended life	• Little – operational improvement only • Medium • High – major overhaul	• Scrap, and replace • Continue until possible • Renovate and Modernise

- R&M investment possibilities range from being "economically viable" to "not viable"
- Objective of Regulatory framework is to enable efficient choice to be made (i.e. R&M where it is the appropriate choice)
- "Economically viable" R&M options are not being exercised in the present context – need to identify barriers, and ways to address them

Summary of Constraints and Barriers

The Constraints and Barriers identified based on the research and discussions can be broadly classified into:

Regulatory Framework

- **Gaps in evaluation framework for efficient choice**
  - Is R&M an option in Least Cost Planning ?
  - For each plant, are alternate cost – benefit options identified and evaluated ?
  - Evaluation based on Engineering Cost, or financial evaluation from Gencos perspective, or from Discom / Consumer perspective ?
- **Efficient choice not being made – Low incentive for Genco; not in scope of Discom**
  - Cost-benefit sharing
  - Responsibility-Risk sharing

Beyond Regulatory framework

Power market situation

- New build more attractive
  - larger quantum of capacity than R&M which is priority in supply constrained scenario
  - R&M investment perceived to be higher risk – performance uncertainty (ability to beat PAF targets for higher returns is more certain in New Build)
- Energy Deficit – Cost of shut down for R&M is very high

Institutional Capacity

- Relatively low project development capacity at State Gencos
- Commercial orientation, but preference for low risk
  - Requirement of equipment suppliers to guarantee performance
  - Preference for OEM (who would prefer New Build)

Different Ways of Evaluation of R&M Investments

Engineering Cost	• Current Approach followed and looks at whether the costs is justified by the works required to be done • CEA uses this approach for evaluating R&M cost. • In practice CERC is also using this approach as seen in case of Tanda & Talcher. This approach is generator focused as any R&M project can be justified on Technical Grounds.
Financial Evaluation	• Evaluation from Generator's Perspective • Evaluating the Investment against Returns by way of Improvement in SHR, AC, Availability, PLF • CERC and SERCs have been advocating the use this approach for evaluating the proposed R&M works. • Crucial to the Viability of the Project is the Realization of Anticipated Benefits by the Generator.
Economic Evaluation	• Evaluation from Distribution Company's Perspective • Evaluate the Investment against Cost of Power including Additional Purchase during Non – Availability of the Plant during R&M vis-à-vis Cost of Power from Newer Plants after the Economic Life of the Plant is over

Acceptable costs need to be seen in context of expected benefits

S.No.	Particulars		Unit	Base	R&M
Plant Assumptions					
1	**Capacity**		**MW**	**1,080**	**1,178**
2	**R&M Investments**		**Rs. Crs.**	**-**	**1,405**
3	**Station Heat Rate**		**kcal / kWh**	**3,000**	**2,550**
4	**Plant Load Factor**		**%**	**50%**	**80%**
5	**Auxiliary Consumption**		**%**	**9.80%**	**7.00%**
6	**Residual Life**		**Years**	**5**	**15**
7	Generation		MU	4,267	7,679
8	Effective tariff (First Year)		Rs. / kWh	1.52	1.53
Market Assumptions					
9	**Short Term Power Purchase**	**Quantity**	**MUs**	**3,412**	**7679**
10		**Rate (first year)**	**Rs. / kWh**	**3.50**	**3.50**
11		**Duration**	**Years**	**1 - 5**	**1**
12	**Long Term Power Purchase**	**Quantity**	**MUs**	**7,679**	**-**
13		**Rate (first year)**	**Rs. / kWh**	**2.32**	**-**
14		**Duration**	**Years**	**6 - 16**	**-**
15	Total Energy (7+9+12)		MU	7,679	7,679
16	Total Years		Years	16	16

Engineering Cost Evaluation

Financial Evaluation (Generator's Perspective)

Financial Evaluation (Discom's Perspective)

- Generation Station whose Base Data with some Assumptions has been used is Koradi – MahaGenco Station

Economically viable projects costs would differ across projects, and could be higher than thumb-rules

Source:
- *Maharashtra Electricity Regulatory Commission*
- *Central Electricity Regulatory Commission*
- *World Bank – Report on Global Environment Facility Trust Fund - 2006*

Misalignment of Cost – Benefit Sharing & Responsibility - Risk Sharing in the Current Approach

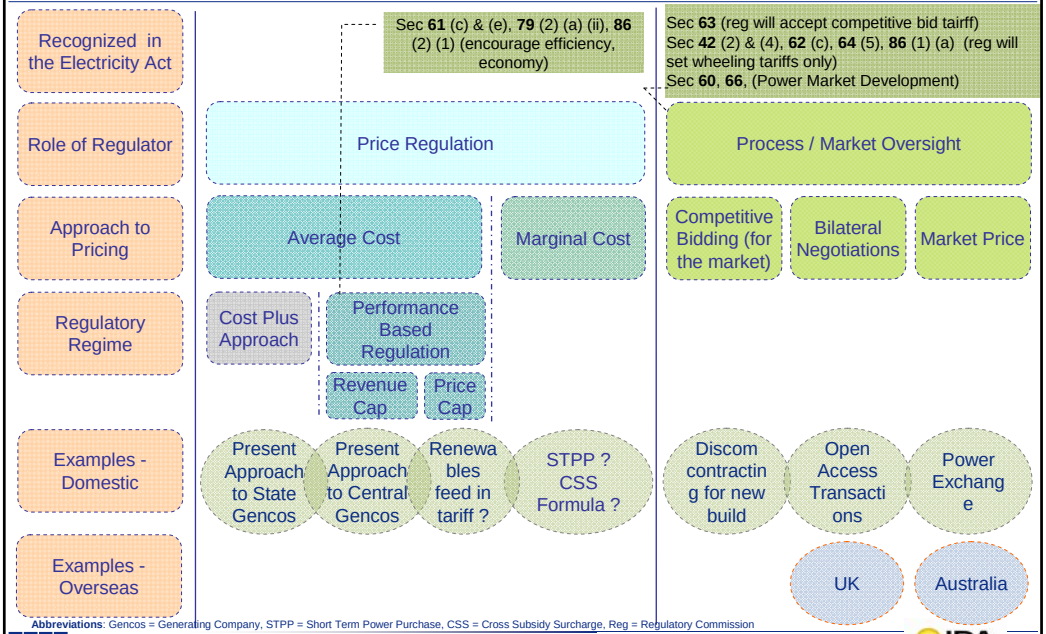
Cost –Benefit Sharing:

- In the current approach, cost of R&M is borne by the Genco but nearly entire benefit of such efficiency improvement would be enjoyed by the Discom (and passed to Consumers)

Figures in Rs. Crs.
Note: Figures are illustrative and are based on certain set of assumptions

Responsibility - Risk	Genco	Discom	Remarks
Investment Decision Responsibility	▨		• Power procurement planning does not consider R&M options – DIscom have little say in R&M possibilities, until proposed by Genco
Risk of inefficient Investment Decision		▨	• Inefficient choice (including not doing R&M which is viable) will impact power purchase cost of Discom
Investment Execution Responsibility	▨		• Mix of ex-post and ex-ante approval of costs • Cost variations can be passed through if approved
Risk of inefficient Investment Execution	▨		• Time delays would largely impact Discom
Operational Responsibility	▨		• Uncertainty on improvement trajectory in some states – being addressed in others • Improvement trajectory not linked to investment requirement
Risk of "inefficient" operations	▨		• Risk of variations in heat rate and auxilary consumption borne by Genco within Control period, and by Discom beyond Control period • Risk of variation in availability borne partly by Genco, and substantially by Discom

Framework to show Range of Options

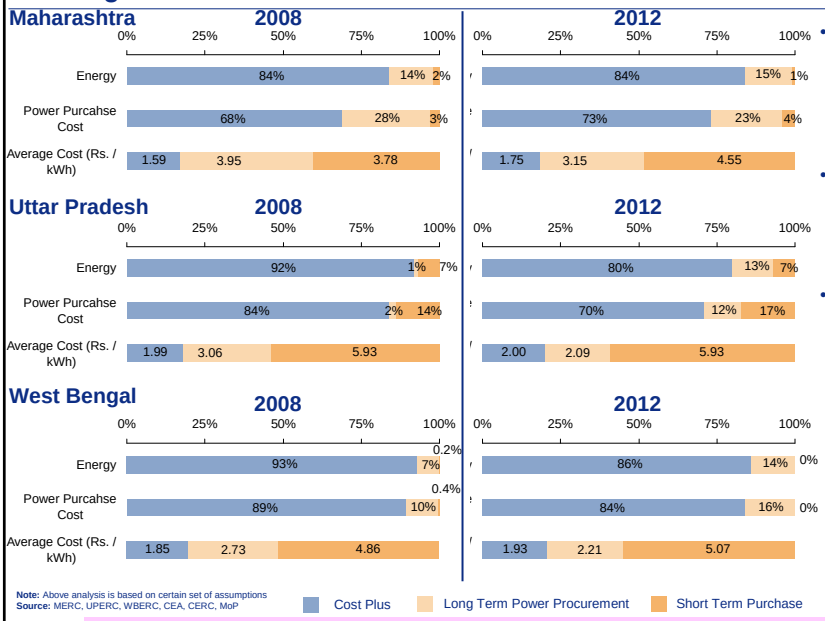


Abbreviations: Gencos = Generating Company, STPP = Short Term Power Purchase, CSS = Cross Subsidy Surcharge, Reg = Regulatory Commission

KPMG

IPA 6

Evolving Power Market



- Regulatory treatment of capacity under "cost plus" will significantly impact evolution of power market
- New capacity addition alone will have limited impact on mix of different types
- Regulators will need to consider:
  - **Impact of selected option on future scenario**
  - **Role of selected option towards desired future scenario**

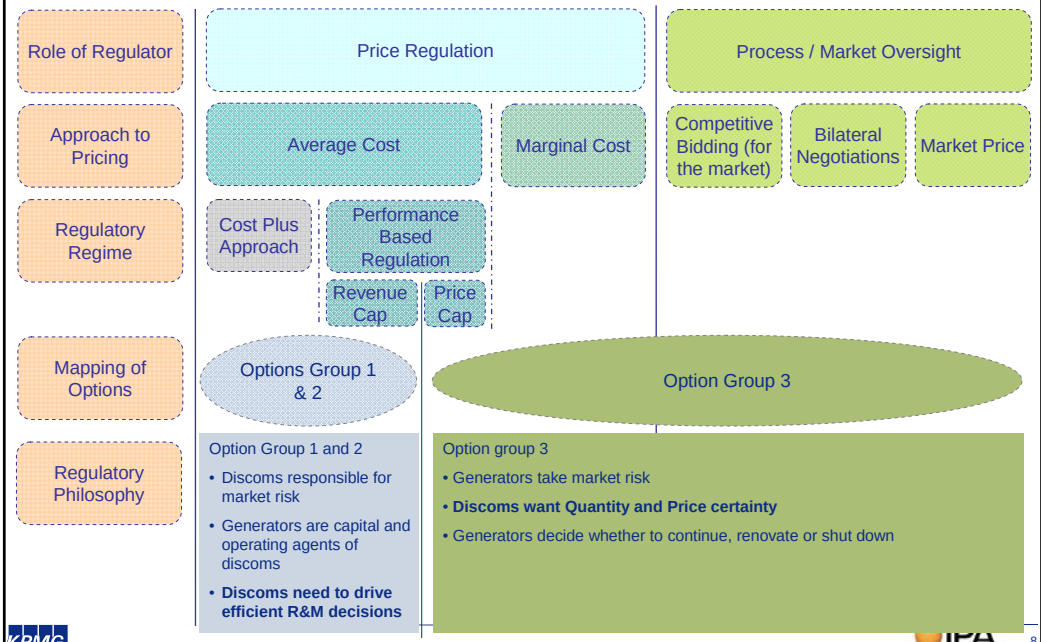
Note: Above analysis is based on certain set of assumptions
Source: MERC, UPERC, WBERC, CEA, CERC, MoP

Cost plus plants can act as a useful instrument to manage transition to greater competitive play in the power market

KPMG

IPA 7

Mapping of Options



Description of Options - Option Group 1 & 2

Particulars	Existing (at state level)	Option 1	Option 2
R&M Proposition	By Genco	Discom: consider R&M options in Least Cost Power Procurement plan Genco: develop alternate efficiency improvement proposals	Same as Option 1
Capex Evaluation	Engineering Approach. At best, **Genco perspective**	Regulator to take **Discom perspective**	Regulator to take **Disco perspective**
Capex	Actual	Actual	As approved ex-ante (no ex-post claw back)
Operating Parameters	Norms pre-set – don't distinguish between R&M or No R&M. Control Period 1 to 5 years	Actuals, within a normative band; to be reset at end of Control Period	Normative, trajectory set for the entire plant, for the Extended life (greater than Control Period)
Return on Capital	Same as new build	Existing returns to continue	More attractive than new build / continue (lower D/E; higher RoE)
Tariff Structure	Two part, plus incentive	Two part, plus incentive	Two part, plus incentive, plus UI regime

Option 2B PSP Model:
R&M + O&M to be contracted out over long term.
Tariff to be determined through Competitive Bidding

Comparison with Risk - Return in Existing Approach: **Low Risk for Generators** → **High Return Potential for Generators**

Since need for R&M is identified by Discom, Generator could choose Option 1 or Option 2, depending on whether he agrees with Discom assessment or not, and his risk appetite

Description of Options - Option Group 3

Particulars	Option 3A	Option 3B: Designed to incorporate Discoms' "claim" on existing plant
PPA / No PPA	• Existing terms and conditions of PPA applicable only for remaining plant life	• Quantity, Price, Term locked in PPA (term greater than remaining plant life) ● firm supply commitment; single rate; fuel and inflation indexation • Failure to arrive at agreement would keep plant under Option 1 • Agreement to be reviewed and approved by Regulator with due process
Generator's decision on the un-committed capacity	• Generator free to sell whatever is not committed under PPA – can decide whether to continue, renovate or shut down	• Generator free to sell whatever is not committed under PPA – can decide whether to continue, renovate or shut down
Additional requirement of Discom	• Discom to do additional procurement through Competitive bidding – generator free to participate	• Discom to do additional procurement through Competitive bidding – generator free to participate

Possible approaches / variants shown on next slide

Description of Options – Possible Approaches to Option 3B

Particulars	3B1: Regulatory determination route	3B2: Competitive bidding route	3B3: Bilateral negotiations between Discom and Generator
Quantity Q1	Based on existing capacity and existing PLF	Based on existing capacity and existing PLF	As negotiated
Price P1 (for sale of Q1)	Based on existing price	Based on existing price, or same as P2	As negotiated
Quantity Q2	Based on difference between "target PLF" and existing PLF, applied on existing capacity	Based on difference between "target PLF" and existing PLF, applied on existing capacity	As negotiated (including zero)
Price P2 (for sale of Q2)	Marginal Cost (e.g. as used in cross subsidy surcharge formula)	To be determined through competitive bidding	As negotiated
Role of regulator	Review and approve Generators proposal for each of the above	As per competitive bidding guidelines under Sec 63 of Act	Ascertain that negotiated deal more attractive than other options
Price for Quantity beyond above	Sale price not regulated	Sale price not regulated.	Sale price not regulated

Evaluation of options: Responsibility- Risk sharing

Responsibility - Risk	Option 1		Current Approach for Existing Plants		Option 2		Option 3	
	Genco	Discom	Genco	Discom	Genco	Discom	Genco	Discom
Investment Decision Responsibility								
Risk of inefficient Investment Decision								
Investment Execution Responsibility								
Risk of inefficient Investment Execution								
Operational Responsibility								
Risk of "inefficient" operations								

Option Group 1 & 2

- If R&M is to be promoted within cost-plus scenario, then it has to be Discom driven, to align cost-benefits-risks-responsibilities.
- "Availability" based contracting (Option 2) is an intermediary position. Still needs R&M specific intervention

Option Group 3

- "Firm" supply contracting does not have cost-benefit-risk-responsibility mismatch. R&M specific intervention is not required. Generator is free to decide to continue, or renovate, or shut down

Evaluation of Options: Regulatory Framework

Barriers Identified	Option Group 1 & 2	Option Group 3
Regulatory Framework • Cost-benefit sharing • Risk – Responsibility sharing • Lack of Project Evaluation Framework	• Marginal improvement • Medium improvement • Requires to be strengthened in Discom, Genco and ERC	• Substantial improvement • Substantial improvement • Requires to be strengthened in Genco

Pre-requisites for Option Group 1 & 2

- Operationalise mechanism for Discom – Genco interface to embed discom role in R&M evaluation – ERC to make necessary enablement in Regulations / Guidelines
- ERC to develop and implement the R&M investment evaluation framework

Pre-requisites for Option 3

- Detailed analysis to determine pace and manner of converting existing arrangements into long term contracts; and modalities for operationalising the transformation

Evaluation of Options: Other barriers

Barriers Identified	Option Group 1 & 2	Options Group 3
Power market situation • New build is more attractive • Energy Deficit – Cost of R&M shut down is very high	• Partially overcome • Not addressed	• Substantially Overcome • Not addressed
Implementation imperatives, and attractiveness, of Option 3 to be considered in context of present and evolving power market		

Evaluation of Options: Other barriers

Barriers Identified	Option Group 1 & 2	Options Group 3
Institutional Capacity • Relatively low development capacity in State Gencos • Commercial orientation, but preference for low risk	• Not addressed • Not addressed	• Not addressed • Not addressed
Focused program for institutional capacity building in Gencos, and/or Private Sector Participation route in each of the options		

Private Sector Participation in Option 2 B and Option 3 B2

Option 2 B: IPP type Model

- R&M investment and O&M responsibilities bundled together & contracted to investor-operator.
- R&M investment a necessary condition
- All output committed under the PPA

Option 3 B2: Generation Franchisee Model

- Plant operations are franchised to private player.
- Firm power supply commitment to be met (Q1, P1, and Q2)
- Free to make investment, additional supply decisions

Investor–Operator selected through competitive bidding

Selection Criteria: Tariff (Case 2 type)

Franchisee selected through competitive bidding

Selection Criteria: Single part tariff – P2 , or Case 1 type

Implementation Requirements:

- Term of lease
- Joint Residual Life Assessment (RLA) Study to finalise operating parameters
- R&M Investment settlement mechanism between Genco and the Private Player
- Manpower issues (whether to be continued, and rights of the new management)
- MIS of the Franchisee to be compatible with the existing pool of generators
- Continued certainty on fuel supply, water, ….. Transfer of rights?

Implementation Requirements:

- Term of lease / transfer value (if any at end of term)
- Manpower issues (whether to be continued, and rights of the new management)
- Accounting of new investment
- Setting up of yearly operational targets to be achieved by the franchisee
- Continued certainty on fuel supply, water, ….. Transfer of rights?
- MIS of the Franchisee to be compatible with the existing pool of generators
- Clarity on meter reading and adjustments during meter faulty conditions and maintenance of existing contracts with sub contractors

Conclusions

- **All the options rank equally on "ease of implementation" consideration – challenges are different**
- **Considering this potentially impacts over 80% of the generation capacity, regulators and regulated entities will need to invest effort to address the barriers – potential upsides towards efficient choices are immense**
- **The options identified are not mutually exclusive – all of them can co-exist. Regulators can choose alternates based on their own readiness and readiness of Discoms and Generators.**
- **Regulators should undertake analysis of impact on power purchase price, and other relevant factors, before adopting any of the options. Such analysis (specific for each state) will show the need for a calibrated path for transition in the power market.**

Thank You

Presentation on Treatment of Free Power From Hydro Power Stations

1

- Till early seventies Hydro Generation was mainly in state sector.
- In addition, there were few Joint sector projects such as
  - Bhakra Nangal (Punjab, Haryana & Rajasthan)
  - Gandhisagar, RP Sagar & Jawahar Sagar (Rajasthan & MP)
- There was no concept of free power from these Joint Sector Hydro Power Stations.
- Himachal Pradesh do not have any free power in Bhakra, depite the fact that whole catchment & submergence area is in Himachal Pradesh.

2

- Concept of free power was introduced by Central Government for Central Sector Hydro Power Stations (for various considerations including to harness cooperation of State Government to establish these stations)
- As per Govt. of India order, 12% free power from Central Sector HEPs is given to home state as compensation for Distress caused due to submergence and dislocation of population.
- All these years, till restructuring of SEBs, this free power was allocated to State Electricity Boards free of cost.
- Thus benefit of free power gets transferred to consumers

- In June 2005, MoP has notified Electricity (Removal of Difficulty) Third Order, 2005. Relevant portion of order is reproduced below:

  "(2) The state government receiving free electricity from hydro power generating stations shall have discretion to **dispose off** such electricity in the manner it deemed fit **according to provisions of the Act.**

  Provided that if such electricity is sold by the state government, the concerned state commission shall have power to regulate the price at which such electricity is procured by the distribution licensee. "

- Now issues come out of this Order are

1. If State Government decides to sell power to a distribution licensee, what would be its status under the provisions of the Act?
   - A Distributor or a Trader?
   - Here it would be pertinent to point out that any quota from 15% unallocated power in Central Sector Thermal Power Stations is allocated to state and state further allocates this power to distribution licensee without any additional charge.
2. What should be basis for fixing price of such power, especially when developer's full Annual Charges are recovered from 88% sellable power.
   - Different methods are being used by various state commissions.

- J&K Commission has fixed price at pooled average tariff from all such stations in the state.
- HP Commission has fixed a price at which state government sell power to PTC during summer. This price is much higher than the CERC tariff fixed for such power stations.
- Uttrakhand Commission has fixed weighted average tariff from all Central Sector Power Stations in the Region in which Uttarakhand has share. Which is again higher than CERC tariff.

Role of FOR & CERC

- Section 61 of the Act provides that SERC shall be guided by the principles and methodologies specified by CERC for determining tariff applicable to generating companies.
- Para 2.4 of Tariff Policy states that Forum of Regulators would facilitate consistency in approach specially in distribution.
- One of the functions of FoR is to evolve measures for protection of interest of consumers

Why this issue is important to UERC

- Uttrakhand Government is contemplating to notify 12% free power for itself from Maneri Bhali II HEP - A State Sector Generating Station.

  Is it statutorily legitimate?
- This would hike the tariff from this station by 35 paise.