MINUTES OF THE

TWELTH MEETING OF THE FORUM OF REGULATORS (FOR)

Venue : India Habitat Centre, Lodhi Road, New Delhi

Date : 11th - 12th June, 2009

The meeting was chaired by Dr. Pramod Deo, Chairperson, CERC/FOR. The list of participants is at **Annexure-I**.

Item No.1 : Confirmation of the minutes of the 11th Meeting of FOR held on 2nd March, 2009 at New Delhi.

The minutes of the 11th meeting were confirmed. The Action Taken Report was perused and it was desired by the Forum that necessary information for formulating the regulations by SERCs regarding the service conditions of the staff may be collected by FOR Secretariat and the same may be circulated to the SERCs.

Item No.2&3 : Budget of "FOR" for the year 2009-10 and Proposal for revision of fee

The Forum decided that the annual membership contribution be revised to Rs. 2 lakh per member per year. Based on this decision, the budget for the year 2009-10 was approved and the same is placed at **Annexure-II**. The Forum also noted and approved the audited accounts of FOR for the years 2006-07, 2007-08 and 2008-09. It was also decided that the members who complete their terms of office during the period between the two successive meetings of the Forum may be invited in the next meeting for farewell.

Item No.4 : Proposal for constitution of the Task Force for implementation of FOR recommendations.

The proposal was approved and the Chairperson was authorized to constitute the Task Force. The Forum further desired that the Task Force may also include the recommendations of the FOR on metering. There was a suggestion to include Shri K. Venugopal, Member, DERC as one of the members of the Task Force.

Item No.5: Discussion on assurance given to Parliamentary Standing Committee on Energy.

The Forum deliberated on the recommendations of the Standing Committee on Energy and decided that SERCs should not permit in ARR (w.e.f. 01.08.2009) the inclusion of 'additional UI charge' imposed on the utilities under CERC's UI Regulations for overdrawl during the time blocks when frequency was below 49.2 Hz.

Item No.6: Consideration of FOR Conduct of Business Rules.

The draft rules were considered and approved by the Forum.

Item No.7: Consideration and acceptance of report on study on "Electricity Reforms & Regulations – A critical review of last 10 years experience with focus on constraints & gaps between the vision and achievements".

A presentation (copy at **Annexure-III**) was made by Dr. Ajay Pandey of IIM-Ahmedabad highlighting the main issues and recommendations as contained in the study report. Detailed discussions were held on various issues during the presentation. The Forum decided the following:

a) A copy of the report may be placed on the website of the Forum.
b) A copy of the report may also be sent to the Ministry of Power.
c) FOR Secretariat may identify the points on which follow up action is required on the part of the Electricity Regulatory Commissions.

Item No.8: Consideration and acceptance of report on "Standard of Performance (SOP)".

A presentation (copy at **Annexure-IV**) was made by the Secretariat highlighting the main features of the model "Standard of Performance" regulations. The Forum desired that the legality of the proposal of giving compensation through automatic route may be got examined by the Secretariat. It was also felt that the standards needed to be specified keeping in view the present ground realities. The Secretariat was directed to place this agenda item in the next meeting of the Forum for further deliberations.

Item No.9: Consideration of the report on "Renewable Energy Certificate (REC) Implementation Framework".

A presentation (copy at **Annexure-V**) was made by the Secretariat highlighting the key features of the proposed Renewable Energy Certificate (REC) Implementation Framework. There was a consensus on the proposal subject to the following:

a) Legality of the proposal for enforcing compliance of Renewable Purchase Obligations through imposition of some sort of charge be got examined further in detail.
b) The effectiveness of the jurisdiction of the SERCs on the State Designated Agencies (SDAs) be further examined and necessary interface with MNRE in this regard be evolved.
c) Impact of proposal of solar REC to be exchanged at a price of about Rs.12 to Rs.13 per unit, on consumer tariffs needs to be assessed further.
d) The accredition agencies at state level would need to have adequate monitoring capability, particularly in respect of use of fossil fuel by biomass based generators.

Item No.10: Discussion on Metering Working Group report.

A presentation (copy at **Annexure-VI**) was made by the Secretariat highlighting the key recommendations of the Working Group. The report was accepted with the following additions/ modifications :

a) The list of features in the meters as specified by DERC may be annexed to the report.
b) Companies should also be included alongwith institutions for the purpose of accredition and support for carrying out third party meter testing.
c) Distribution transformer metering should be with the sole objective of energy accounting, in view of the likely difficulties in allocating the energy consumption among the consumers on the basis of meter reading at distribution transformer.
d) CEA should be requested to expeditiously bring out standards for KVA metering. The formulation regarding KVA metering, as appearing in the report, may also be checked for consistency.
e) BIS standards would be necessary for pre-paid metering technologies in order to ensure compliance with the requirements of CEA regulations.

Item No.11: Discussion on APTEL Judgements in Appeal No. 180/08 and 181/08.

The Forum noted the main rulings in the judgements of the APTEL in Appeal No. 180/08 and 181/08. DERC informed that a review application has been filed by them before APTEL in Appeal No. 181/08.

Item No.12: Legal opinion on the interpretation of the Fifth proviso to Section 42(2) of the Electricity Act, 2003.

The Forum noted the legal opinion.

Item No.13: Any other issue.

The Forum agreed to meet next in the month of July 2009 in Delhi and the agenda items would be information technology in distribution, functioning of power exchanges, and rationalizing transmission pricing.

Chairperson, PSERC offered to host a meeting of the Forum in September'09 which was accepted.

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

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/ ANNEXURE – I /

LIST OF PARTICIPANTS ATTENDED THE TWELTH MEETING

OF

FORUM OF REGULATORS (FOR)

HELD DURING 11TH – 12TH JUNE, 2009

AT "AMALTAS" HALL, CONVENTION CENTRE
INDIA HABITAT CENTRE, NEW DELHI

S. No.	NAME	ERC
01.	Dr. Pramod Deo Chairperson	CERC – in Chair.
02.	Shri A. Raghotham Rao Chairperson	APERC
03.	Shri B.K. Halder Chairperson	BERC
04.	Shri S.K. Misra Chairperson	CSERC
05.	Shri Berjinder Singh Chairperson	DERC
06.	Dr. P.K. Mishra Chairperson	GERC
07.	Shri Bhaskar Chatterjee Chairperson	HERC
08.	Shri Mukhtiar Singh Chairperson	JSERC
09.	Dr. V.K. Garg Chairperson	Joint ERC for Goa & all UTs except Delhi
10.	Dr. J.L. Bose Chairperson	MPERC
11.	Shri V.P. Raja Chairperson	MERC
12.	Shri B.K. Das Chairperson	OERC
13.	Shri Jai Singh Gill Chairperson	PSERC

14.	Shri D.C. Samant Chairperson	RERC
15.	Shri V.J. Talwar Chairperson	UERC
16.	Shri Rajesh Awasthi Chairperson	UPERC
17.	Shri Prasad Ranjan Ray Chairperson	WBERC
18.	Shri Himdari Dutta Member	AERC
19.	Shri Hemam Bihari Singh Member	Joint ERC for Manipur & Mizoram
20.	Shri Vishwanath Hiremath Member	KERC
21.	Shri C. Abdulla Member	KSERC
22.	Shri B. Jeyaraman Member	TNERC
23.	Shri Alok Kumar Secretary	CERC
24.	Shri Sushanta K. Chatterjee Deputy Chief (Regulatory Affairs)	CERC

/ ANNEXURE – II /

BUDGET OF "FOR" for the year 2009-10.

Particular	Actual 2008-09		Budget 2009-10	
	Non Plan	Plan	Non Plan	Plan
INCOME				
Subscription @ Rs.2 lakh - proposed	1900000.00		5200000.00	
Interest	4244952.00		3400000.00	
Plan Assistance from MoP		11436154.00 (which includes Rs.6853928.00 brought forward from year 2007-08)		20000000.00 (Rs.1 Cr. each for training and Consultancy)
TOTAL	6144952.00		8600000.00	20000000.00
EXPENDITURE				
Meeting Expenses	1044976.00		1200000.00	
Salary	425135.00		2000000.00	
Training		4183536.00	4600000.00	10000000.00 (Rs.9500000.00 (committed liabilities)
Consultancy		6786369.00		10000000.00
Secretariat expenses	1046731.00		1800000.00	
TOTAL	2516842.00	10969905.00	9600000.00	20000000.00

Electricity Reforms and Regulations- A Critical Review of Last 10 Years Experience

New Delhi, June 12, 2009

Sebastian Morris & Ajay Pandey
IIM Ahmedabad

Structure of Presentation

- The presentation only focuses on a particular objective of the reforms and on the roles which key institutions are envisaged to play.
- Each slide is based on one such objective or an institution and contains some of the issues identified in the report and recommendations related to those issues.
- The review of steps undertaken as part of the reforms in last decade or so and the experiences so far, are covered in the report but not presented here.

Competitive Procurement, ABT and Trading

Issue:

- High cost of traded power

Reasons:

- While long-term procurement is on the basis of “two part tariffs”, the short term competition is essentially based on “energy-only price” or a single price.
- Given no compulsion to procure adequate capacity and option to ration supply, utilities have an incentive to rely on UI under ABT or short-term traded power to meet peak shortages or short-term requirements.
- Peak power or short-term merchant power is likely to be expensive due to uncertainty of capacity utilization and need to recover capital costs over a shorter period of time.

Competitive Procurement, ABT and Trading

Recommendations:

- There is a case for empowering the SERCs to insist on adequate contracting of capacities by the utilities rather than relying on UI and rationing for matching demand and supply.
- High price for peaking power and high prices through out the day are symptoms of different problems and should be dealt with accordingly.
- Peaking power price, which is available on energy-only or a single price is expected to be high whereas high price of traded power through the day is clear indication of inadequate capacity contracting by the utilities.
- Demand side management through different and higher prices during peak hours, should be used more aggressively to flatten the load curve.
- Trading margin regulations are not likely to be very helpful in dealing with the problem.

Trading

Issues:

- Can the trading margin be regulated?
- Should the trading margin be regulated?

Difficulties and Recommendations:

- Distribution utilities can retain or create capacities for trading to provide benefit to their consumers.
- Generators can create trading arms and can bypass the regulation through suitable transfer pricing unless there is a cap on prices charged by the generators.
- If the objective is that the traders should help in matching supply and demand, then trading margin regulations are not warranted.

Creating Competitive Electricity Market

Issues:

- ABT based management of imbalances does not provide incentives over medium to long term for balancing the demand and supply.
- While most of the long-term contracted power is dispatched on the basis of “energy charge” or variable costs, the traded power is dispatched on total costs.
- In the absence of bidding for dispatch, the dispatch decisions are based on charges payable rather than the costs revealed by the bidding.
- In the absence of a consolidated market revealing a single price, the short-term trades are on the basis of bilateral contracts with associated counter-party and contract failure risks.

Creating Competitive Electricity Market

Recommendations:

- An alternative to ABT based management of imbalances would be creating real time market (gross pool).
- For developing the market, the existing bilateral contracts between generators and utilities can be honored. The transmission assets should be common carrier and be free from bilateral contracts.
- The capacity and energy need to be separately contracted for in the real time market, i.e., capacity and energy contracted for can be sold separately and there is a single price for each during each slot of time.
- All players pay or get the same price for capacity and energy but the bilateral contracts as financial contracts can continue to be respected through settlement between the two parties.
- Another alternative to above is to have real time imbalance market based on bids and offers (net pool). In such a case, the prices may be more volatile.

Creating Competitive Electricity Market

Caveats:

- Care has to be taken against the possibility of exercise of market power. Gross pool with extensive long-term contracting lessens the incentive to game the market.
- Price caps can be specified as in case of Australian market. But the price cap should neither be too low nor too high.
- Extensive use of TOD meters wherever feasible would be required if the objective is to have a greater share of dispatchable load in the market allowing demand side response.
- Real time markets require real time management and control of transmission network including assessment of losses at different nodes and congestion besides security constraints in dispatch.
- Greater centralized coordination by the market operator and ISO is required for effective real time markets to operate.

Open Access and Competition

Issues:

- Open Access has been allowed but not availed due to-
    - cross-subsidy surcharge and applicable tariffs
    - Reduction in or expectation of reduction in industrial tariffs
    - lack of availability of firm and long-term power at reasonable prices
    - weak bargaining power vis-à-vis utility, perceived threat.
    - utilities' indirect control over STU and SLDC

Recommendations:

- Cross-subsidy surcharge and standby charged need to be reviewed and lowered.
- Independence of STU/SLDC needs to be ensured to reduce threat perception.

Independent System Operations

Issues:

- Transmission utilities and Load dispatch centers are expected to provide non-discriminatory access to transmission system by all eligible participants is necessary to promote competition.
- SLDCs/ STUs have currently too close a linkage with the other state utilities for historical reasons and administrative structure post unbundling are preserving these links.

Recommendations:

- STUs and SLDCs should be ring-fenced financially and administratively from direct or indirect influence of utilities/ state governments.
- SLDCs should report functionally to SERCs and the manpower of SLDCs may require training in system operations without commercial or political considerations.
- STUs and SLDCs should disclose system related information and decision-rules in the public domain for facilitating non-discriminatory open access.

Transmission Tariffs and Competition

Issues:

- Currently, the transmission costs are recovered through postage stamp pricing, which are not sensitive to direction and distance of flow.
- Since the basis of pooling is geographical, it penalizes the consumers of producing areas.
- Cost of expanding transmission network is not factored while determining generation costs/ prices.

Recommendations;

- A substantial part of capacity costs of existing transmission assets should be allocated to consumers based on some distance related measure.
- Losses and congestion costs should be based on typical load flows even if real time approach like “nodal pricing” is found difficult to implement.
- Generation capacity costs should include cost associated with expansion required for transmission network.

Competition among Discoms/ through Multiple Licensees

Issues:

- Desire of the state governments to keep tariffs same across state has resulted in no effective competition.
- This has been achieved through dynamic allocation of generation capacity and subsidy distribution.
- Administrative structure and HR policies preclude any effective competition and also make intra-state ABT meaningless.
- In such a scenario, any attempt to introduce competition through multiple licensees would be difficult. In any case, open access to distribution system of competitor is not allowed.

Recommendations:

- Meaningful competition is possible only if the capacity allocations, subsidies are fixed for multiple years in advance and administratively the utilities are made independent.

Competition through Captive Generation

Issues:

- Open access related issues affect use of captive generation capacity.
- Postage stamp transmission may become hindrance unless dedicated lines are used.
- Terms are not as favorable as traded power and/or UI charges.

Recommendations:

- The terms of offtake from captive generators should be at least as favorable as short-term traded power/ UI charges.
- Despite problems in Pune, bringing captive capacity for peaking power may still be socially beneficial.

Addition of Generation Capacity

Issues:

- Some of the states are not keen on adding capacity for exports outside the state whereas some others are keen on it.
- Lack of clarity on the basis of Coal and rail linkages.
- Gas availability problems. Existing capacities under utilized but no restriction on creation on new gas based capacity under gas utilization policy.
- The framework for transmission charges being based on location of assets penalizes the consumers of exporting states/regions to the advantage of consumers of importing states/regions.
- No mechanism exists to ensure that utilities contract for adequate capacity.
- Some of the states continue to have poorly performing generating capacity. Addition of new capacity is costlier than improving utilization of existing capacity.
- Imported coal based capacity may be subject to price and supply risks.

Addition of Generation Capacity

Recommendations:

- To incentivise states
    - Collective (regional) framework such as UMPPs and central interventions.
    - Alternatively, an incentive mechanism like free power .
    - Another alternative- to allow tax on production rather than on sale of electricity.
- For creating incentive for the states to create transmission capacity, a framework such as “Uttarakhand Integrated Transmission Project” may be useful so that the transmission costs are paid for by the end consumers (of importing states).
- Single-window clearance mechanism for capacity addition or prior clearances as in case of UMPPs for identified locations.
- No new gas based plants should be allocated gas.
- SERCs should have the power to insist that utilities contract for adequate capacity.
- Tanda, Unchahar and Talcher experience suggests that takeover of state plants in case they do not perform adequately would be in the consumers’ interest as compared to addition of new capacities.

Distribution Loss Reduction

Issues:

- Improvement is limited to urban areas in some of the states.
- While APDRP facilitated much needed investment in distribution network, its impact on loss reduction limited.
- Metering at all levels patchy and agricultural connections remain unmetered. Even when metering done, quality of consumer metering data suspect (NA/NR).
- Baseline loss estimates are still not available with the SERCs. Data quality from discoms remains poor.
- Lack of consistency in reporting losses across utilities and time-periods. Inclusion of transmission losses, traded power in input energy etc. can bias reported loss levels besides assessed consumption.
- Despite overall improvements in some states, it is still not possible to segregate technical and commercial losses.

Role of State Government and Distribution Loss Reduction

Issues:

- State utilities have close administrative linkages with the state government and are not functioning as commercial entities.
- In some states, state government have rolled back tariffs determined by the regulator.
- In some states, utilities have not filed their ARRs and in some cases have asked for lower returns to keep the tariffs low, uncharacteristic of a commercial entity.
- State governments continue to either directly or indirectly intervene in HR policies of the state utilities undermining their independence.
- Despite anti-theft provisions in the EA 2003, enforcements are weak and some states have not even created special courts as provided in the Act. Some states have informally directed utilities to be softer on first time violators than what is specified under EA 2003.

Distribution Loss Reduction

Recommendations:

- Direct subsidy to the beneficiaries would be required to target the beneficiaries without causing distortions in the sector.
- Reporting by the utilities on loss has to be standardized segregating all losses.
- Economics of AMR for all feeders and large consumers need to be explored.
- Quality of supply (load-shedding) could be linked with collective losses on a feeder by the SERCs.
- Unless state governments exhibit will to let go the state utilities as independent commercial entities and support the enforcement against theft, the problems will remain. This includes accepting SERC determined tariff, payment of subsidy on time as per sec 65 of EA.
- SERCs should demand proof of payment of subsidies by the state government and not allow lower return while determining tariffs.

Privatization

Experiences:

- Four different models conceived or implemented
    - Orissa' sale of equity: Failed experiment
    - Delhi's privatization based on bids to reduce AT&C loss: By and large successful
    - Karnataka's proposed distribution margin approach
    - Maharashtra distribution franchisee: Successful

Learning:

- Sale of equity approach for a large heterogeneous territory will not work unless loss levels are brought down.
- For large commercial urban centers, Delhi model is better in terms of risk allocation as it creates high incentive for the private sector and requires minimal intervention from state.
- For smaller urban centers, franchisee model is less risky for private sector and consumers pay same tariff as in other parts of the state.

Regulatory Independence and Powers

Issues:

- Providing enforcement support to regulators by the state is necessary but there is an in-built conflict of interest when the state owned entities are to be regulated.
- Ability of the regulators to take matters suo-moto to discharge their functions.
- Governments, courts and legislatures have still not evolved the understanding of regulatory role and there have been conflicts.
- Consultative processes between various levels of governments and regulators are yet to be institutionalized.

Recommendations:

- Periodic review of regulatory independence and dissemination of such reviews would identify and highlight problem areas.
- There is a need for consultative framework between SERCs, MoP and the state governments.
- National level forum rather than state advisory committees to insulate SERCs from direct pressures.

Regulating Private Sector

Issues:

- Private sector has greater incentives to-
    - Pad up costs in case of cost plus regulations
    - Under-report revenue or over-report expenditures
    - Exploit legal/ regulatory loopholes and inconsistencies
    - Walk-out if continuing is commercially detrimental
    - Capture “regulators”

Recommendations:

- Use of “price cap” regulations or competitive bids wherever possible.
- Extra effort in auditing (or cross auditing) and prudent checks.
- Terms and conditions should factor in walk-out possibility and there should be a contingency plan.
- Code of conduct for regulators

Regulatory Resources: Financial

Issues:

- Quite a few SERCs are dependent on the state governments financially despite EA allowing setting up regulatory fund subject to oversight by CAG and the legislature.
- Financial autonomy and independence is prerequisite for functional independence.

Recommendations:

- ERCs should be financial autonomous and should build-up regulatory fund by charging fees from the licensees subject to CAG and legislature oversight.

Regulatory Resources: HR

Issues:

- Most of the ERC personnel are on deputation and retirees.
- SERCs find it difficult to attract legal and finance professionals.
- Some of the SERCs have successfully used consultants.
- There has been little attempt to build capability/ training for their existing staff in required professional skills.
- There is a lack of exposure to developments in regulation even if there is exposure to the sector.

Recommendations:

- Compensation and career path needs to be reviewed to attract better quality HR in professional categories.
- Adequate budget is required to take help of outside consultants whenever required.
- A certain minimum training/ exposure /capability enhancement is required for the staff with ERCs.

Harmonizing Regulations and Building Case Laws

Issues:

- Regulations and rulings need to be consistent across ERCs and APTEL to reduce regulatory risks and to minimize exploitation of inconsistencies and loopholes
- Building case laws and cross referencing is useful to minimize inconsistencies.

Recommendations:

- Building Repository of Rulings and Regulations with indexing would be useful for building case laws and harmonizing the regulations.
- Research support and adequate staff may be required for cross-referencing in rulings and regulations.

Thank You!

Forum of Regulators (FOR)

Model Regulation on Standards of Performance
June 2009

The Presentation covers

- Objective, approach and philosophy
- Structure of the Regulation
- Complaint handling mechanism
- Compensation
- Awareness of regulations
- Reporting
- Auditing

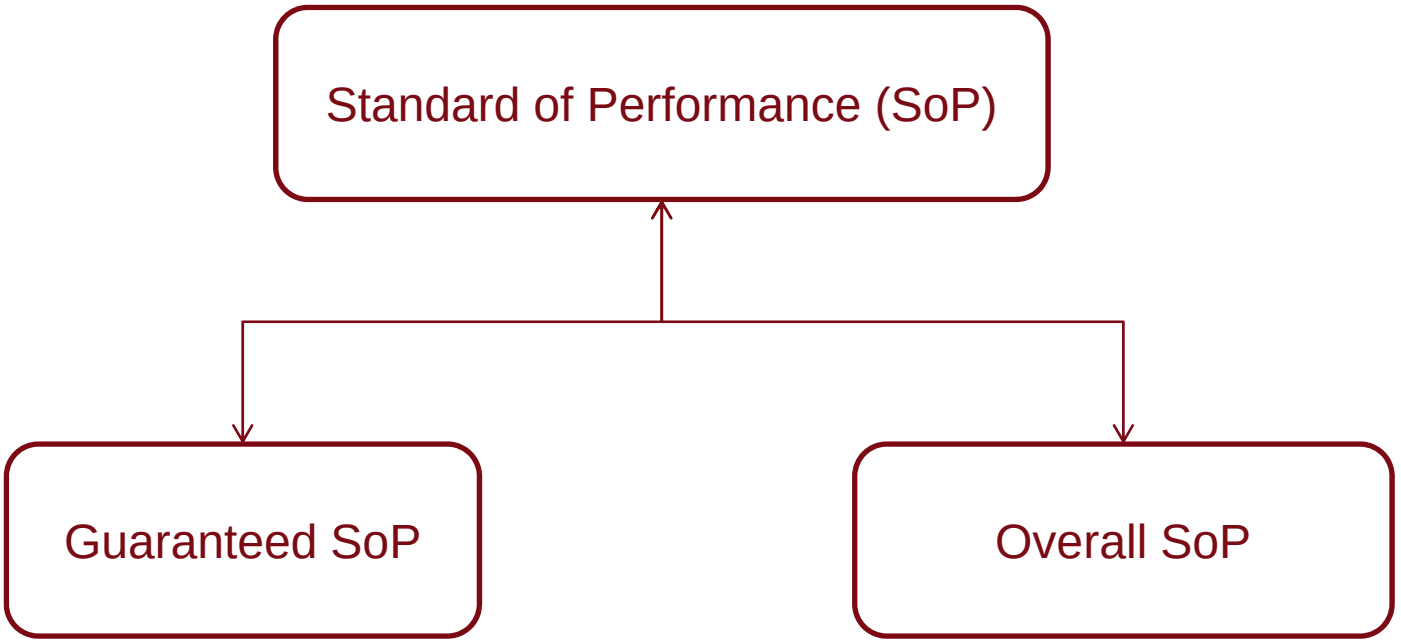
Objective

- To develop a model regulation of Standards of Performance, which could serve as a template for consideration of State Electricity Regulatory Commission (SERCs) in discharge of their responsibilities under section 57 of the Act.

Approach

- Phase I
  - Review of Standard of Performance regulations issued by the various SERCs in India (10 identified states) and some of the countries (5 identified countries)
  - Consultation with stakeholders in various states by undertaking primary survey field visits, face to face discussions and seeking response through the questionnaire
- Phase II
  - Preparation of draft Model SOP Regulation and consultation paper based on the analysis of questionnaire and discussions
- Phase III
  - Discussion on findings of Phase I and II in a seminar organized by FOR, for various stakeholders
- Phase IV
  - Finalization of Model SOP Regulation based on the feedback received from the stakeholders on the draft

Philosophy Adopted



Philosophy adopted contd.....

Standard of Performance parameters have been classified as under:

- Guaranteed Standards of Performance:
  - These are the minimum standards of service that a distribution Licensee shall achieve. The failure of Licensee to achieve the Guaranteed Standards of service shall entail payment of compensation to the consumer
- Overall Standards of Performance:
  - These are the desirable level of performance which Licensee shall seek to achieve in the discharge of its obligations.
  - If Licensee is able to achieve the Overall Standards of Performance for any particular parameter, the compensation amount paid to consumers under Guaranteed Standards of Performance for that parameter will be allowed to be recovered in the revenue requirement of the Licensee
- Parameters for Guaranteed Standards and Overall Standards have been arrived at based on the feedback of all stakeholders. Exclusion and Inclusion of events have also been defined

Enforcement of SOP

- Complaint Handling
  - Manual of practice for handling consumer complaints, Procedure for handling grievances, establishment of call centers
- Awareness of SOP Regulation
- Compensation
  - Automatic or To be claimed
- Submission and audit of Reports
  - on Guaranteed Standards and Overall Standards of performance parameters

Guaranteed and Overall Standards of Performance

Guaranteed Standards are minimum standards of service that a licensee shall achieve with respect to each consumer.

GS have been specified for the following:

- operation of call center
- restoration of supply
- quality of supply
- meter complaints
- shifting of meter lines and transformers
- new connection / additional load / temporary connection
- transfer of ownership, change of category
- bill complaints
- disconnection / reconnection of supply
- failure to pay automatic compensation

Overall Standards

- All Guaranteed standards have been included in the Overall Standards
- Reliability standards (SAIFI, SAIDI, MAIFI) have been additionally included in the OS
  - Internationally that's not the case – GS and OS have different sets of parameters;
  - Existing infrastructure does not ensure complete implementation of GS for all consumers but capture OS
  - Targets specified for OS are more stringent than the GS

Structure

Model SOP Regulations have been structured as under:

- Regulations: cover introduction, short title, scope of application, definitions and regulations on
  - complaint handling mechanism
  - compensation mechanism
  - submission of reports
  - awareness of SOP Regulations
  - inclusion & exclusion of events
- Schedules: there are three schedules which cover following
  - Guaranteed Standards
  - Overall Standards
  - compensation
- Annexure: there are four annexure which cover the following:
  - reporting format for Guaranteed Standards of Performance
  - reporting format for Overall Standards of Performance
  - format for registering complaints in the complaint office
  - content of audit report and audit templates

Manual of Practice for handling consumer complaints

Regulations require Licensee, to Publish a “Manual of Practice For Handling Consumer Complaints” containing following information, within three months from the date of commencement of Regulations:

- complaint redressal mechanism (with due regard to the fact that the Consumer has the right to approach the CGRF directly)
- annexure to the Manual containing Guaranteed Standards of Performance
- provisions of the Regulations, in particular relating to the rights of the consumers
- duties and obligations of the Licensee under these Regulations
- any other information which may be adversely affecting the consumers

Manual is required to be prepared in English, Hindi and local language

Manual should be available for reference at every complaint centre, call centre and on the web site of the Licensee

Procedure for handling grievances

Regulations require Licensee to follow the following procedure at its call centre or the customer care centre upon receipt of complaint from the consumer:

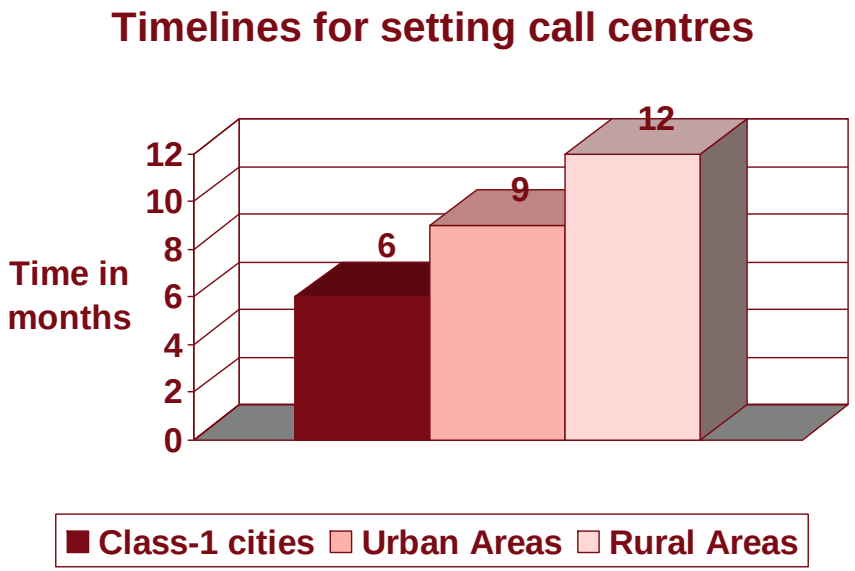
- register complaint by allotting a unique identification number to be called the complaint number
- communicate, at the time of lodging the complaint, complaint number, date and time of registration of the complaint, to the consumer
- record details in respect of such complaint
- intimate to the consumer , through telephone or other electronic means or any other means the status of the complaint
- record feedback of the consumer on the action taken along with the total time taken for resolution of the complaint
- intimate contact details of the CGRF and Ombudsman.

Establishment of Call Centre

Licensee is required to establish a Call Centre with following facilities for redressal of grievances of its consumers:

- 24 x 7 Call Centre
- Employ/engage sufficient number of officers or employees at its Call Centers
- Establish a basic telephone/cellular mobile telephone number having sufficient lines
- No call charges are to be charged to the consumer, for calls made to the call centre
- Ensure availability of electronic data base to record complaints. This data bank should also be linked with the billing data base

Licensee shall use the existing channels for recording complaints till the establishment of Call Centre



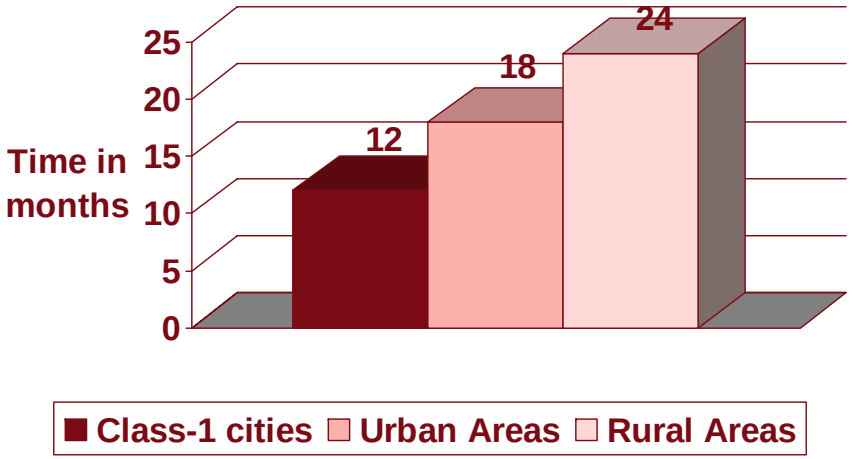
Incidence of compensation and manner of payment

- If Licensee fails to meet the Guaranteed Standards of Performance, it is required to pay compensation to the affected person
- Amount of compensation to be paid is defined in schedule-III of the Regulation
- Mode of payment of compensation is defined as “automatic” or “to be claimed”
- All payments of compensation under automatic mode, are to be made by way of adjustment against current and/or future bills for supply of electricity, within 90 days from the date of violation of a Guaranteed Standard
- In all other cases of compensation except those covered under automatic, the payment of compensation are to be made by adjustment against current and/or future bills for supply of electricity, within 60 days from the date of establishment of claim by the appropriate authority. Consumer will be required to make such a claim within 30 days of violation of the Guaranteed Standards
- If the Licensee, however, fails to dispense the ‘automatic’ compensation amount as laid above, Licensee shall pay additional compensation to the consumer

Incidence of compensation and manner of payment

- In case of events affecting more than one consumer, the provisions for payment of compensation will be applicable when the data on consumer indexing is available
- For consumers, where level of services defined in the contractual agreement between the Licensee and the consumer is different from the other consumers in the same category, deficiency in service shall invite additional compensation commensurate to the additional tariff charged for providing such services
- In case, Licensee is able to meet the Overall Standards of Performance for any parameter, then the compensation paid by Licensee to the consumer, for the respective parameter, shall be pass through in the ARR of the Licensee

Time lines for Consumer indexing*



*As specified in metering report of FOR

Awareness of SOP Regulations

Licensee is required to ensure that the following steps are undertaken for creating proper awareness among consumers and its staff:

- Licensee should publish the Guaranteed Standard of Performance along with compensation structure at the back of the bills and should also include necessary information on filing of complaints
- Licensee should display the Guaranteed Standard of Performance and the compensation structure at all bill collection centres

Submission of reports

Licensee is required to submit monthly report providing the following information (to be submitted within 15 days from the close of each month):

- performance levels achieved for GS and the measures taken to improve the performance
- number of cases in which compensation was paid and the aggregate amount of the compensation payable and paid

Licensee is required to submit quarterly report providing the following information (to be submitted within 15 days in each quarter):

- level of performance achieved for OS
- measures taken/planned by the Licensee to improve performance in the areas covered by OS

Licensee also has to submit separate projection of the capital expenditure requirement for meeting the targeted level of performance

Third party audit of reports

The Commission shall engage independent agency(ies) to conduct annual checks, to monitor the compliance of the standards by the Licensees. The following procedure is to be adopted for engaging the agency(ies):

- audit scope and methodology for carrying out the audit to be outlined by the Commission
- Commission shall empanel a list of approved agencies
- Licensee can engage an agency from the list of empanelled agencies
- audit shall be conducted under an agreement between the agency and licensee
- Licensee shall not engage any agency consecutively for more than two years
- Licensee shall not engage any agency which is currently their statutory auditor/internal auditor/consultant.
- The Commission may also engage its staff to conduct annual checks, to monitor the compliance of the standards by the Licensees

Guaranteed Standards of performance

S. No.	SOP Parameters	Class-I Cities	Urban Areas	Rural Areas
Operation of Call Centre				
1.	First response against a Consumer Call	3 minutes	3 minutes	3 minutes
2.	Registration of Consumer Call and issue of docket number	5 minutes	5 minutes	5 minutes
Restoration of supply				
3.	Normal fuse off	3 hours	4 hours	8 hours
4.	Line breakdowns	4 hours	6 hours	24 hours
5.	Under ground cable break down	8 hours	12 hours	48 hours
6.	Distribution Transformer Failure	16 hours	24 hours	48 hours
7 (a).	Maximum duration of scheduled outage	12 hrs	12 hrs	12 hrs
7 (b)	Number of scheduled outages in a year	4	4	4
Quality of Supply				
8.	Voltage fluctuations in case no expansion/augmentation of network required	10 days	10 days	10 days
9.	Voltage fluctuations in case expansion/augmentation of network required	120 days	120 days	120 days
10.	Voltage fluctuations in case erection of substation required	On case to case basis as per the approval of Commission	On case to case basis as per the approval of Commission	On case to case basis as per the approval of Commission

Guaranteed Standards of performance

S. No	SOP Parameter	Class-I Cities	Urban Areas	Rural Areas
Meter complaints				
11.	Meter Reading	Once in two months	Once in two months	Once in two months
12.	Meter inspection and replacement	4 days	7 days	12 days
13.	Replacement of burnt meter	3 days	5 days	7 days
Shifting of meters lines and transformers				
14.	Shifting of meter	7 days	7 days	7 days
15.	Shifting of lines	20 days	20 days	20 days
16.	Shifting of transformer structure	30 days	30 days	30 days
New connection/ additional load/ temporary connection for consumers				
17.	New connection/ additional load where supply can be provided from existing network	30 days	30 days	30 days
18.	New connection/ additional load where supply can be provided after extension/augmentation of network	LT 30 days HT 90 days EHT 120 days	LT 30 days HT 90 days EHT 120 days	LT 30 days HT 90 days EHT 120 days
19.	Erection of substation to extend supply	On case to case basis as per the approval of Commission	On case to case basis as per the approval of Commission	On case to case basis as per the approval of Commission
20.	Issue of temporary connection	3 days	3 days	5 days

Guaranteed Standards of performance

S.No	SOP Parameter	Class-I Cities	Urban Areas	Rural Areas
Transfer of ownership, change of category				
21.	Title, transfer of ownership	7 days	7 days	7 days
22.	Change of category	LT 30 days HT 60 days	LT 30 days HT 60 days	LT 30 days HT 60 days
Consumer bill complaint				
23.	Billing complaint resolution	24 hrs if no additional information is required otherwise 7 days	24 hrs if no additional information is required otherwise 7 days	24 hrs if no additional information is required otherwise 7 days
Disconnection of supply				
24.	Disconnection of supply	3 days	7 days	10 days
25.	Refund of security deposit etc.	10 days	10 days	15 days
26.	Issue of no dues certificate	10 days	10 days	15 days
Reconnection of supply following disconnection				
27.	Reconnection of supply disconnection	4 hrs	4 hrs	10 hrs
Failure to pay automatic compensation				
28.	Time limit to pay automatic compensation	90 days	90 days	90 days

Compensation

S. No.	SOP Parameters	Compensation payable to individual in case event affects single consumer*	Compensation payable to individual in case event affects more then one consumer*	Mode of payment of compensation
Operation of Call centre				
1.	First response against a Consumer Call	Rs 10 in each case of default	Not applicable	Automatic
2.	Registration of Consumer Call and issue of docket number	Rs 10 in each case of default	Not applicable	Automatic
Restoration of supply				
3.	Normal fuse off	Rs 50 in each case of default	Rs 50 for each consumer	Automatic
4.	Overhead Line / Cable breakdowns	Rs 100 in each case of default	Rs 100 for each consumer	Automatic
5.	Under ground cable break down	Rs 100 in each case of default	Rs 100 for each consumer	Automatic
6.	Distribution Transformer Failure	Rs 150 in each case of default	Rs 150 for each consumer	Automatic
7(a)	Maximum duration of scheduled outage	Rs 150 in each case of default	Rs 150 for each consumer	Automatic
7(b)	Number of scheduled outages in a year	Rs 150 in each case of default	Rs 150 for each consumer	Automatic
Quality of Supply				
8.	Voltage fluctuations in case no expansion/augmentation of network required	Rs 50 for each day of default	Rs 50 to each consumer for each day of default	Automatic
9.	Voltage fluctuations in case expansion/augmentation of network required	Rs 100 for each day of default	Rs 100 to each consumer for each day of default	Automatic

Compensation

S. No.	SOP Parameters	Compensation payable to individual in case event affects single consumer*	Compensation payable to individual in case event affects more then one consumer*	Mode of payment of compensation
Meter complaints				
11.	Meter Reading	Rs 200 in each case of default	Not applicable	To be claimed
12.	Meter inspection and replacement	Rs 50 for each day of default	Not applicable	Automatic
13.	Replacement of burnt meter	Rs 50 for each day of default	Not applicable	Automatic
Shifting of meters lines and transformers				
14.	Shifting of meter	Rs 50 for each day of default	Not applicable	To be claimed
15.	Shifting of lines	Rs 100 for each day of default	Not applicable	To be claimed
16.	Shifting of transformer structure	Rs 250 for each day of default	Not applicable	To be claimed
New connection/ additional load/ temporary connection for consumers				
17.	New connection/ additional load where supply can be provided from existing network	Rs 100 for each day of default	Not applicable	To be claimed
18.	New connection/ additional load where supply can be provided after extension/augmentation of network	Rs 250 for each day of default	Not applicable	To be claimed
19.	Erection of substation to extend supply	Rs 500 for each day of default	Not applicable	To be claimed
20.	Issue of temporary connection	Rs 100 for each day of default	Not applicable	To be claimed
Transfer of ownership, change of category				
21.	Title, transfer of ownership	Rs 50 for each day of default	Not applicable	Automatic
22.	Change of category	Rs 50 for each day of default	Not applicable	Automatic

Compensation

S. No.	SOP Parameters	Compensation payable to individual in case event affects single consumer*	Compensation payable to individual in case event affects more then one consumer*	Mode of payment of compensation
Consumer bill complaint				
23.	Billing complaint resolution	Rs 50 for each day of default	Not applicable	Automatic
Disconnection of supply				
24.	Disconnection of supply	Rs 50 for each day of default	Not applicable	To be claimed
25.	Refund of security deposit etc.	Rs 50 for each day of default	Not applicable	To be claimed
26.	Issue of no dues certificate	Rs 50 for each day of default	Not applicable	To be claimed
Reconnection of supply following disconnection				
27.	Reconnection of supply after disconnection	Rs 50 for each day of default	Not applicable	Automatic
Failure to pay automatic compensation				
28.	Failure to pay automatic compensation within 90 days	Rs 250 in each case of default	Not applicable	To be claimed

Inclusion and exclusion of events

A power interruption shall include any outage in the distribution system, extending from the distribution substation to the consumer meter, which may be due to the tripping action of protective devices during faults or the failure of distribution lines and/or transformers, and which results in the loss of power supply to one or more consumers

The application of the standard of performance prescribed in these Regulations shall remain suspended in case of the following events:

- force majeure events such as war, mutiny, civil commotion, riots, flood, cyclone, lightning, earthquake or other force and strike, lockout, fire affecting the Licensee's installations and activities
- outages due to generation, grid failure, transmission licensee's network failure
- outages that are initiated by the National Load Despatch Centre/ Regional Load Despatch Centre/ State Load Despatch Centre during the occurrence of failure of their facilities
- outages due to other events that the Commissions shall approve after due notice and hearing

Criteria for specification of SOP parameters

The performance quality standards have been set in the new regulations under the following three categories:

- Class-I cities as defined in the Census of India-2001 (areas with population of more than 1 lakh)
- Urban areas- areas covered by all Municipal Corporations and other Municipalities including the areas falling under the various Urban Development Authorities, Cantonment Authorities and industrial estates or townships, excluding the areas covered under Class-I Cities
- Rural areas- areas covered by Gram Panchayats

THANK YOU

Presentation on Implementation of Renewable Energy Certificate (REC) Framework in India

12th FOR Meeting

Dated : 12th June 2009

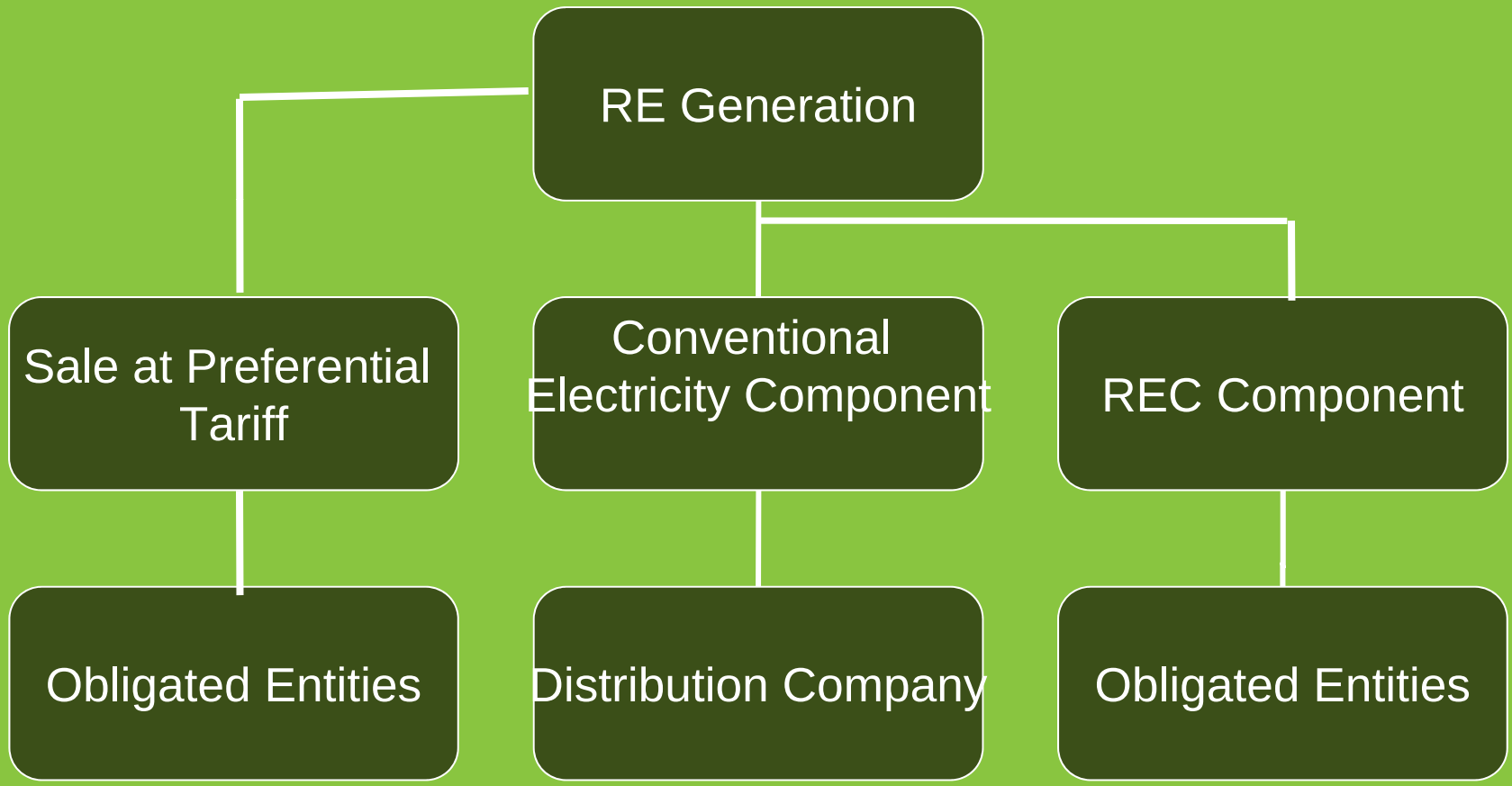
The Presentation Covers

- Background
- Conceptual framework of REC mechanism
- Solar REC
- Operational Framework
- Monitoring and Compliance Mechanism

Background

- FOR report on Policies on Renewable Recommended suitable national level mechanism like REC to promote RE generation
- FOR constituted Task force for implementation framework
- Task force has recommended framing model regulations. Accordingly FOR Secretariat, with the approval of chairperson
  - has engaged consultant to evolve model regulations for SERCs in terms of Section 86 (1) (e) of the Electricity Act-2003 for implementation of REC framework

Conceptual Framework



Salient features of REC Framework

- RE generators with capacity untied in PPA will have an option to sell electricity and REC separately
- REC will be issued to RE Generators only
- 1 MWhr → 1 REC
- Purchase of REC would be considered as purchase of RE
- REC to overcome geographical constraints and provide flexibility to achieve RPO compliance

Eligibility criteria

- **Eligible**
  - RE technologies approved by MNRE
  - Grid connected RE generators of at least 250 KW capacity.
- **Not eligible**
  - RE project with existing PPA
  - If RE sale at preferential Tariff

Operational Framework

❑ Accreditation

Accreditation

- ❑ By State Nodal Agency (SNA)
- ❑ verification of application and project
- ❑ only accredited generators can receive REC

❑ Registration of accredited generators

- ❑ By central level Registry - the entity operating NLDC (CTU or PoSoCo)
- ❑ Registry to be regulated by CERC under Section 66 of the Electricity Act 2003

Accreditation

The accreditation process may include:

- ❑ Owners and operator's details
- ❑ Nominated persons details
- ❑ Power station details
- ❑ RE source details
- ❑ Metering details
- ❑ Approval details

Operational Framework

- **Issuance of REC**
  - Entity operating NLDC (Central Registry) to issue REC ,based on information from SLDC about injection of RE into grid
  - Eligible RE generator will receive a certificate for a specified quantity of electricity generated
- **Exchange of REC**
  - On Power Exchanges approved by CERC
- **Carry Over of REC**
  - In surplus scenario max 25% of REC, generated in a year, can be carried over only for next year

Accreditation of RE power plants
(State nodal agency: SNA)

1

Registration of Eligible entities
(Central level agency)

2

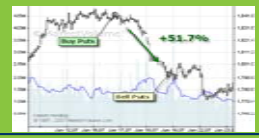
Information related to accreditated RE plants for registered entities sent to REC registry

4

Central REC Registry (NLDC)

5

REC exchange



Issuance of REC

RE Generator

Information related to RE generation

3

Sale of electricity at par with conventional power

6

Auditing Panel

Discom issuing RE injection certificate

State Load Despatch Centre (SLDC)

electricity Energy accounting

Information on REC purchase/redemption

SERC: Compliance based on SNA Report

State Nodal Agency SNA

Operation Framework

❑ Pricing of REC

Electricity Component Price = Average Power Purchase Cost (PPC) of utility in previous Financial year

REC component price = Notional fixed Price (Rs 1.5 /kWh)

❑ **Ceiling price** for exchange of REC to be decided by SERC based on recommendation of FOR (say, Rs. 2.5/kWh)

Concept of solar REC

- Separate REC for Solar Technology
- Each state can mandate a separate solar RPO of 0.25% in 2011-12 with an increase of 0.1 % by each year. To be harmonized at FOR level
- Notional Price for the Solar REC could be 12 Rs./kWh (with a ceiling price of say, Rs. 13 /kWh)

Monitoring and Compliance

❑ Monitoring

- ❑ By State Nodal Agency (SNA)
- ❑ Ensuring Compliance by SERCs based on the report of SNA

❑ Enforcement Mechanism :

- ❑ Renewable Energy Compliance Charge to be decided by SERCs - say, in the range of 120% to 150% of the ceiling price of REC
  - ❑ In addition, a penalty under section 142 of the Act.
- ❑ Renewable Energy Compliance Charge and penalty would not be a 'pass through' in ARR
  - ❑ The amount collected can be utilized for infrastructural development (like evacuation infrastructure) related to RE sources

Calculation of REC notional price

- RE Tariff for Different Sates according to RE technologies

	State	Wind	SHP	Biomass	Bagasse
1	Andhra Pradesh	3.37	2.6	4.15	3.29
2	Gujarat	3.37	-	3.08	3
3	Himachal Pradesh	-	2.87	-	-
4	Haryana	4.08	3.67	4	3.74
5	Karnataka	3.4	2.8	3.1	3.06
6	Madhya Pradesh	3.69	-	3.39	2.82
7	Maharashtra	3.5	3	4.28	3.05
8	Rajasthan	3.69	-	4.36	-
9	Tamil Nadu	3.39	-	4.5	4.38
10	West Bengal	4	3.6	4	2.55

Calculation of REC notional price

- Different options for Electricity Component Price

Sr No	State	Competitive Bidding Price (Rs/kWh)	Cost of Generation (Rs/kWh)	Average Power Purchase Cost (Rs/kWh)
		Option-1	Option-2	Option-3
1	Andhra Pradesh	2.33	1.38	1.74
2	Gujarat	2.89	-	2.17
3	Himachal Pradesh	-	1.14	1.58
4	Haryana	2.335	1.28	2.49
5	Karnataka	-	-	1.88
6	Madhya Pradesh	2.298	1.66	1.97
7	Maharashtra	2.642	-	2.39
8	Rajasthan	-	1.43	2.52
9	Tamil Nadu	-	1.93	1.78
10	West Bengal	-	1.75	2.03

- From these two tables Average value for Each technology and for each option can be calculated.

Calculation of REC pricing

- By considering the weighted average of each technology w.r.t. its contribution, final average price of REC can be calculated for each option as shown
- Then averaging all three scenario gives Final Average REC price of 1.5 Rs./kWh

	Competitive Bidding Price	Cost of Generation	Average Power Purchase Cost
	Option-1	Option-2	Option-3
Wind	1.1	2.13	1.5
SHP	0.91	1.9	1.2
Biomass	1.28	2.5	1.77
Bagasse	0.68	1.76	1.18

Option		Weighted Average REC price (Rs/kWh)
Option -1	Competitive Bidding	1.02
Option -2	Cost of generation	2.07
Option -3	Average power purchase cost	1.43

Thank You

A Brief Presentation on 'The FOR Working Group' Report on *"Metering Issues"* and its Main Recommendations

Background

- Proper and correct Metering and Billing
  - An Essential Prerequisite for implementing systemic Distribution Reforms,
  - Most importantly a reduction in AT & C losses ; not received due attention
  - Hence need felt for thorough examination of metering issues
  - Legal and other relevant provisions in Electricity Act, NEP, TP etc .

Background

- Working group composition :
  - Chairperson of CERC as Chairman of Working Group
  - Chairperson of AERC, GERC, HERC, KSERC, MERC, TNERC, UERC and Secretary SERC as members
  - Deputy Chief (RA), CERC as coordinator
  - Special Invitee : DERC Member, Advisor FOR and Representative of CEA
- Working Group Meetings
  - First meeting : 7th November 08
  - Second on : 21st February 09

Deliberations : Issues Covered are

1. road map to cent percent metering
2. meter installations standard and practices,
3. adhering to CEA's Regulations
4. metering for Energy Accounting
5. consumer indexing ,
6. third party testing of meters,
7. TOD metering, kVAh Metering, Prepaid Metering ,
8. metering of agriculture consumers, measurement of un metered supply
9. meter reading and billing practices,
10. consumer inducement measures,
11. Innovative measures, best practices and adoption of new metering technologies etc.

MAIN RECOMMENDATIONS
BY THE WORKING GROUP

Status of Metering and Road map

- Target date set by all SERCs for cent percent metering
- Endeavour to be to have it achieved within set time frame
- Ensure installation of meter as per CEA regulation and in accordance with Code on installation and testing as per new BIS standard
- Metering of supply for street lighting may be compulsory

Status of Metering and Road map

- Robust and cost effective technology required for AMR in rural areas
  - CEA to take up R & D Project for developing such cost effective technologies
- Till this emergence the methodology adopted by UERC to be replicated with due consideration of the local conditions
  - UERC permitted six monthly metering along with waiver of surcharge for intervening period

INSTALLATION OF METERS

- SERC shall specify a time frame for replacing electro-mechanical meters with advanced technology focusing in high loss area

- Appropriate procedure for installation of meter including the sealing is necessary by anticipating the difficulties.

  Procedure adopted by DERC can be replicated :

  - list of standard features of the meters to be procured by the distribution licensee

  - detail procedure laid down in supply code and SOP Regulations

TESTING OF METER

- Third party testing of meters should be ensured through accredited institutions
- In the initial period SERC may support these institutions financially though an appropriate provisions in ARR
- Periodicity of testing the static meters should be fixed keeping in view of cost involved in testing and replacing
- SERCs should seek report on quarterly or half yearly basis from licensee on rectification /replacement of defective meters

READING OF METER AND BILLING

- SERCs may provide in their regulations on SOP and Supply Code that no more than two successive bills would be raised provisionally
- SERCs should ask for time bound program for completing consumer indexing
  - Priority should be given to high loss area

ASSESSMENT OF UNMETERED CONSUMPTION

- Till individual metering is completed DT based group metering appears to be a feasible option and practical option
  - DT metering should made compulsory and should be through remote control device
- To gain acceptance for Metering, tariff for metered consumers should be lower than unmetered consumers

APPROPRIATE METERING TECHNOLOGY

- TOD Metering
  - Wherever possible, TOD metering should be implemented
  - High end consumers with the connected load of 25 KW should definitely be under TOD metering
- kVAh Metering
  - CEA suggestion : kVAh shall be calculated as vector sum of Active and reactive power instead of arithmetic sum
  - High end consumers with connected load 20KW and above should have tariff on kVAh basis
- Prepaid metering
  - SERCs may consider giving rebate in tariff for consumers opting for prepaid metering

Detailed recommendations with explanations are contained in the report for consideration of FOR.

THANK YOU