

MINUTES OF THE 52ND MEETING

OF

FORUM OF REGULATORS (FOR) HELD AT NEW DELHI

VENUE : **"JACARANDA" HALL
FIRST FLOOR
INDIA HABITAT CENTRE (IHC)
LODHI ROAD, NEW DELHI.**

DATE : **02ND FEBRUARY 2016**

LIST OF PARTICIPANTS : **AT ANNEXURE-I (ENCLOSED)**

The meeting was chaired by Shri Gireesh B. Pradhan, Chairperson, Central Electricity Regulatory Commission (CERC) and Forum of Regulators (FOR).

Chairperson, CERC and FOR extended a warm welcome to Shri P.K. Pujari, Secretary (Power), Government of India, who joined the Inaugural Session of the 52nd meeting of the Forum of Regulators. He also extended a warm welcome to all the Members of the Forum, Chairman, CEA, Officers of Ministry of Power, CEA and Officers of CERC.

In his opening remarks, the Chairperson stated that Government of India has recently notified the "Revised Tariff Policy, 2016". On behalf of the Forum

of Regulators, he complimented the Secretary (Power) and his team of Officers at the Ministry of Power for executing the important task of overhauling the Tariff Policy, 2006 and formulating the Revised Tariff Policy, 2016. He stated that the Revised Tariff Policy has provided for a more focused role for the regulators at Central and State levels. He further acknowledged the larger role envisaged for the Forum of Regulators in the Revised Tariff Policy. He urged the Forum to deliberate upon the broad implications of the provisions of the new policy and flag issues for further examination and discussion with the Ministry of Power.

Shri P.K. Pujari, Secretary (Power), in his address shared his thoughts on the Revised Tariff Policy. He stated that the objective of the amendments to the Tariff Policy is broadly to ensure Electricity for all, Efficiency to ensure affordable tariffs, Environment for a sustainable future, Ease of doing business to attract investments and ensure financial viability. He highlighted the salient features of the Revised Tariff Policy.

He stated that in order to enable 24x7 power supply, the policy provided for determination of power supply trajectory and connecting the unconnected remote villages through micro grids.

The policy facilitated to promote optimum utilization of land and other resources by increasing procurement of power from expansion of existing private power plants on regulated tariff from 50% to 100% of existing capacity. A win-win situation between Generator, utilities and consumers has been created by allowing net revenue from sale of un-requisitioned power to be shared on 50:50 basis between parties to the PPA. In order to encourage investments and to arrogate due share to the resource rich States, the policy facilitated the host States to procure upto 35% of power from the generating stations set up in the States, on the basis of regulated tariff.

The policy provided for a revised cross subsidy surcharge formula aimed at balancing the interests of open access consumers and DISCOMs together.

In order to avoid accumulation of regulatory assets and to reduce the burden on consumer, periodic (monthly / quarterly) revision of tariff has also been prescribed. As a measure towards reduction of theft and better load management, usage of Smart meters in a phased manner has been prescribed.

In order to promote renewable energy and energy security, the policy mandated 8% of total consumption of electricity, excluding hydro power, to be procured from solar energy by March, 2022. The policy also provided for new coal / lignite based thermal plants (after specified date) to also establish /

procure / purchase renewable capacity as prescribed by Government of India (GoI). In addition, bundling of renewable power with power from thermal plants whose PPAs have expired or plants which have completed their useful life, has been allowed. The policy has also exempted wind and solar plants from payment of inter-State transmission charges and losses till such period as notified by GoI.

The policy provided for compulsory procurement of 100% power produced from all the Waste-to-Energy plants in the State by the Distribution Companies, with an aim to meet the objective of Swachh Bharat Mission for disposal of waste besides generation of electricity. Further, to release clean water to meet drinking water needs of cities and reduce polluting rivers, it has also been mandated to use treated sewage water by the thermal plants within 50 km of sewage treatment facilities. Hydro projects have been exempted from competitive bidding till 15th August, 2022. The policy, while addressing the challenges pertaining to renewable capacity expansion programme and issues related to corresponding grid stability, requires the Regulators to specify norms for ancillary services to support power system or grid operation especially with expanding renewable energy.

Discussion:

The Forum discussed the impact of measures prescribed in the Revised Tariff Policy, viz., revised cross subsidy formula, bundling of renewable energy, cost pass through of imported coal, exemption for Railways from payment of cross subsidy, compulsory purchase of electricity from waste-to-energy plants, exemption of wind and solar projects for transmission charges and losses etc.. While addressing the queries raised by the Members of the Forum, Secretary (Power) stated that the policy specifies the broad contours and appropriate ERC is required to regulate the sector through appropriate regulatory interventions.

Secretary (Power), thanked the Central Electricity Regulatory Commission (CERC) for its support and valuable suggestions and advice given to the Ministry of Power during the process of drafting the Revised Tariff Policy. He requested the Forum of Regulators to deliberate upon the action points in the Revised Tariff Policy and take suitable actions for its effective implementation.

The Chairperson, CERC and FOR thanked Secretary (Power), Ministry of Power for joining the Forum in its Inaugural Session of its 52nd Meeting.

The Inaugural Session concluded and thereafter, the Forum took up the agenda items for consideration.

AGENDA ITEM NO. 1 : CONFIRMATION OF THE MINUTES OF THE 51ST MEETING OF "FOR" HELD ON 30TH NOVEMBER, 2015 AT INDIA HABITAT CENTRE (IHC), NEW DELHI.

The Forum noted and endorsed the minutes of the 51st Meeting of "FOR" held on 30th November, 2015 at New Delhi.

AGENDA ITEM NO. 2 : REVISED TARIFF POLICY, 2016 – NOTIFIED BY THE MINISTRY OF POWER, GOVERNMENT OF INDIA.

A detailed presentation was made by Dr. Sushanta K. Chatterjee, Joint Chief (RA), CERC on clause-wise amendments made in the Revised Tariff Policy, 2016 and the actionable points for the CERC, SERCs / JERCs and FOR emanating from the amendments. The details of clause-wise amendments notified in the Revised Tariff Policy, 2016 vis-à-vis Tariff Policy, 2006 are provided in **Annexure-II**.

The Revised Tariff Policy provided for the following actionable points for the CERC / SERCs / JERCs / FOR :-

i) Action Points for CERC :

- a. Suitable provision in the existing MYT Regulations by **CERC**/SERC/JERC that in case of expansion, for passing on the benefit of sharing of infrastructure, and for determination of tariff by the Commission (5.2).
- b. **CERC** to notify regulations for determination of tariff for projects based on coal washery rejects (5.4).
- c. Suitable provision for determination of tariff for Pumped Storage Plants by the **CERC**/ SERC/JERC (5.5).
- d. **CERC**/SERC/JERC to make suitable provision in regulations allowing pass through the Interest During Construction (IDC) and Financing Cost (FC) only upto the period of delay not attributable to the developer (5.5 (d)).
- e. **CERC**/ SERC/JERC to notify provisions for incentivizing HEPs (5.8).
- f. **CERC** to adopt RoE/RoCE in the interest of consumers (5.11 (a)).
- g. **CERC** to specify upper ceiling of rate of depreciation, while allowing the developer to exercise option for a lower depreciation. **CERC**/ SERC/JERC to notify regulations for bundling of Renewable Power along with power from plants whose useful life has been completed, while allowing the obligated entities to account for the RE power towards RPO (5.11 (c)).
- h. **CERC**/ SERC/JERC to notify regulations for allowing R&M (before completing their useful life) to achieve higher efficiency levels (5.11 (g)).
- i. **CERC**/ SERC/JERC to allow pass through of the cost of imported/market based e-auction coal for making up the shortfall in the event of the CIL's failure to supply assured quantity of coal (6.1).
- j. **CERC**/ SERC/JERC to notify (i) two part tariff structure and (ii) differential tariffs for peak and off peak. **CERC**/ SERC/JERC to notify methodology for sale/purchase of Un-Requisitioned Surplus Power (6.2 (1)).

- k. CERC/ SERC/JERC to suitably factor in “Change in Law” in orders/regulations (6.2 (4)).
- l. CERC to provide for technology and vintage based REC multipliers (6.4(1)).
- m. Competitive bidding for RE procurement to be mandatory from a date to be notified by Central Government. RE Tariff Regulations of CERC/ SERC/ JERC to provide for area / zone wise CUF (6.4 (2)).
- n. CERC to notify guidelines for pricing intermittent RE power. Tariff determined by CERC to act as ceiling tariff (6.4 (3)).
- o. CERC/ SERC/ JERC to notify regulations allowing RE power bundled with thermal power for accounting towards RPO by the obligated entities; allowing RE power generated from additional RE capacity (in excess of mandated RE capacity) for accounting towards RPO by the obligated entities (6.4 (5)).
- p. CERC not to levy inter-State transmission charges and losses on transmission of solar/wind power through inter-State transmission system, till such time as may be notified by the Central Government (6.4 (6)).
- q. CERC to notify and operationalise Ancillary Services framework. SERCs to notify norms/framework for ancillary services (adopting CERC norms/framework) (7.4).

ii) Action Points for SERCs/JERCs :

- a. Suitable provision in the existing MYT Regulations by CERC/SERC/JERC that in case of expansion, for passing on the benefit of sharing of infrastructure, and for determination of tariff by the Commission (5.2).
- b. SERC/JERC to specify the threshold limit for intra-State transmission projects through competitive bidding process (5.3).
- c. Suitable provision for determination of tariff for Pumped Storage Plants by the CERC/ SERC/JERC (5.5).

- d. CERC/SERC/JERC to make suitable provision in regulations allowing pass through the Interest During Construction (IDC) and Financing Cost (FC) only upto the period of delay not attributable to the developer (5.5 (d)).
- e. CERC/ SERC/JERC to notify provisions for incentivizing HEPs (5.8).
- f. SERC/JERC to notify regulations for recovery of all prudent costs pertaining to generation, transmission and distribution (5.10).
- g. CERC to adopt RoE/RoCE in the interest of consumers. SERC/JERC to consider distribution and supply margin as basis for allowing returns in distribution (5.11(a)).
- h. CERC to specify upper ceiling of rate of depreciation, while allowing the developer to exercise option for a lower depreciation. CERC/SERC/JERC to notify regulations for bundling of Renewable Power along with power from plants whose useful life has been completed, while allowing the obligated entities to account for the RE power towards RPO (5.11 (c)).
- i. CERC/ SERC/JERC to notify regulations for allowing R&M (before completing their useful life) to achieve higher efficiency levels (5.11(g)).
- j. SERC/JERC to notify regulations for providing open access to various categories of consumers (5.13).
- k. CERC/ SERC/JERC to allow pass through of the cost of imported/market based e-auction coal for making up the shortfall in the event of the CIL's failure to supply assured quantity of coal (6.1).
- l. CERC/ SERC/JERC to notify (i) two part tariff structure and (ii) differential tariffs for peak and off peak. CERC/ SERC/JERC to notify methodology for sale/purchase of Un-Requisitioned Surplus Power (6.2(1)).
- m. CERC/ SERC/JERC to suitably factor in "Change in Law" in orders/regulations (6.2(4)).
- n. SERC/JERC to notify RPO (along with a separate target for solar power) and also to consider cost towards purchase of RE power for determination of tariff; Framework for compulsorily procuring 100%

power generated by Waste-to-Energy plants; Mandatory RPO compliance by cogeneration based on sources other than RE (6.4(1)).

- o. Competitive bidding for RE procurement to be mandatory from a date to be notified by Central Government. RE Tariff Regulations of CERC/SERC/JERC to provide for area / zone wise CUF (6.4(2)).
- p. CERC/SERC/JERC to notify regulations allowing RE power bundled with thermal power for accounting towards RPO by the obligated entities, allowing RE power generated from additional RE capacity for accounting towards RPO by the obligated entities (6.4(5)).
- q. SERC/JERC to notify regulations on generation from roof-top solar (including by RESCO) (6.4(7)).
- r. SERCs to notify framework for intra-State transmission pricing based on distance, direction and quantum of flow on lines of similar framework evolved by CERC (7.1(8)).
- s. SERCs to notify methodology for loss allocation in intra-State transmission (7.1(1)).
- t. CERC to notify and operationalise Ancillary Services framework. SERCs to notify norms/framework for ancillary services (adopting CERC norms/framework) (7.4).
- u. SERCs to notify mandating load forecasting by distribution licensees along with their power procurement plans. SERCs to devise trajectory to ensure 24x7 power supply by 2021-22 or earlier. SERC/JERC to notify regulations on micro grids including for mandatory purchase of power generated by micro-grids in the event of grid extension (8.0).
- v. SERC/JERC to notify fuel price / power purchase adjustment formula for recovery of costs on monthly/quarterly basis (8.2(7)).
- w. SERC/JERC not to create Regulatory Assets, except in case of natural calamity / force majeure conditions. SERC/JERC to specify trajectory for recovery of outstanding regulatory assets within a period of seven years (8.2.2)
- x. SERC/JERC to notify roadmap for reduction of cross-subsidy and bringing tariffs within $\pm 20\%$ of the average cost of supply (8.3).

- y. **SERC/JERC** to adopt two-part tariff within one year for consumers of 1 MW and above and for others within five years (8.4(1)).
- z. **SERC/JERC** to notify mandating installation of smart meters (consumers of more than 500 units before Dec., 2017 and consumers more than 200 units before Dec., 2019). Also to mandate two-way smart meters enabling net-metering of roof-top solar power generation. **SERC/JERC** to mandate smart meters to enable energy audit and SCADA system for reducing theft (8.5 (3)).
- aa. **SERC/JERC** to notify cross-subsidy surcharge as per the revised formula. Flexibility given to SERC/JERC (8.5.1).
- bb. **SERC/ JERC** to notify that tariff of temporary connection (in case of outage under open access) restricting to 125% of normal tariff within that category (8.5.6).

iii) Action Points for the Forum of Regulators :

- a. To carry out study on price-cap regulations for distribution and supply margins (5.11(a)).
- b. To suggest appropriate depreciation rates for distribution (5.11 (c)).
- c. To evolve model guidelines on operating norms for distribution networks (5.11 (f)).

The Forum decided that a Working Group of FOR may be constituted by the Chairperson, CERC / FOR, for carrying out a detailed study on issues related to actions to be taken by the CERC / SERCs / JERCs / FOR and submit its recommendations to the Forum in the next meeting for its consideration.

Chairperson, UPERC graciously offered to host the next meeting of the Forum. It was decided to hold the same during April, 2016 in Varanasi.

On conclusion of the meeting, Secretary, CERC thanked all the dignitaries present in the meeting. She also thanked the staff of “FOR” Secretariat for their arduous efforts in organizing the meeting.

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

LIST OF PARTICIPANTS ATTENDED THE 52ND MEETING
OF

FORUM OF REGULATORS (FOR)

HELD ON 02ND FEBRUARY, 2016 AT NEW DELHI.

S. No.	NAME	ERC
01.	Shri Gireesh B. Pradhan Chairperson	CERC – in Chair.
02.	Shri Digvijai Nath Chairperson	APSERC
03.	Shri S.K. Negi Chairperson	BERC
04.	Shri Narayan Singh Chairperson	CSERC
05.	Shri Jageet Singh Chairperson	HERC
06.	Shri S.K.B.S. Negi Chairperson	HPERC
07.	Shri Basharat Ahmed Dhar Chairperson	J&KSERC
08.	Justice (Retd.) Shri N.N. Tiwari Chairperson	JSERC
09.	Shri S.K. Chaturvedi Chairperson	JERC for Goa & All UTs except Delhi
10.	Shri M.K. Shankaralinge Gowda Chairperson	KERC
11.	Shri T.M. Manoharan Chairperson	KSERC
12.	Dr. Dev Raj Birdi Chairperson	MPERC
13.	Shri Anand Kumar Chairperson	MSERC
14.	Shri Imlikumzuk Ao Chairperson	NERC
15.	Shri Satya Prakash Nanda Chairperson	OERC

16.	Shri Vishwanath Hiremath Chairperson	RERC
17.	Shri S. Akshayakumar Chairperson	TNERC
18.	Shri I.A. Khan Chairperson	TSERC
19.	Shri Subhash Kumar Chairperson	UERC
20.	Shri Desh Deepak Verma Chairperson	UPERC
21.	Shri R.N. Sen Chairperson	WBERC
22.	Shri Dipak Chakravarty Member	AERC
23.	Shri J.P. Singh Member	DERC
24.	Shri K.M. Shringarpure Member	GERC
25.	Shri Gurinder Jit Singh Member	PSERC
26.	Smt. Shubha Sarma Secretary	CERC
27.	Dr. Sushanta K. Chatterjee Joint Chief (RA)	CERC
SPECIAL INVITEES		
01.	Shri A.K. Singhal Member.	CERC
02.	Shri A.S. Bakshi Member	CERC
03.	Dr. M.K. Iyer Member	CERC
04.	Shri P.K. Pujari Secretary	MOP
05.	Shri Major Singh Chairperson	CEA
06.	Shri Pankaj Batra Chief Engr.	CEA
07.	Shri A.K. Saxena Chief (Engg.)	CERC

08.	Shri M.K. Anand Chief (Fin.)	CERC
09.	Shri T. Rout Chief (Legal)	CERC
10.	Smt. Geetu Joshi Chief (Eco.)	CERC
11.	Shri Gyanesh Bharti Director (R&R)	MOP

COMPARISON OF PROVISIONS OF THE TARIFF POLICY, 2006 VIS-À-VIS REVISED TARIFF POLICY, 2016

Tariff Policy, 2006	Revised Tariff Policy, 2016	Action Points (CERC/SERC/JERC)
<p>1.1. In compliance with section 3 of the Electricity Act 2003 the Central Government hereby notifies the Tariff policy in continuation of the National Electricity Policy (NEP) notified on 12th February 2005.</p>	<p>1.1</p> <p>In compliance with section 3 of the Electricity Act 2003, the Central Government notified the Tariff Policy on 6th January, 2006. Further amendments to the Tariff Policy were notified on 31st March, 2008, 20th January, 2011 and 8th July, 2011. In exercise of powers conferred under section 3(3) of Electricity Act, 2003, the Central Government hereby notifies the revised Tariff Policy to be effective from the date of publication of this resolution in the Gazette of India.</p> <p>Notwithstanding anything done or any action taken or purported to have been done or taken under the provisions of the Tariff Policy notified on 6th January, 2006 and amendments made thereunder, shall, in so far as it is not inconsistent with this Policy, be deemed to have been done or taken under provisions of this revised policy.</p>	
<p>1.2. The National Electricity Policy has set the goal of adding new generation capacity of more than one lakh MW during the 10th and 11th Plan periods to have per capita availability of over 1000 units of electricity per year and to not only eliminate energy and peaking shortages but to also have a spinning reserve of 5% in the system. Development of the power sector has also to meet the challenge of providing access for electricity to all households in next five years.</p>	<p>1.2 The National Electricity Policy has set the goal of adding new generation capacity and enhancing per capita availability of electricity per year and to not only eliminate energy and peaking shortages but to also have a spinning reserve as specified by the Central Electricity Authority. Development of the power sector has also to meet the challenge of providing access for affordable electricity to all households in next five years.</p>	
	<p>New Provision</p> <p>4.0</p>	

	<ul style="list-style-type: none"> e) Promote generation of electricity from Renewable sources; f) Promote Hydroelectric Power generation including Pumped Storage Projects (PSP) to provide adequate peaking reserves, reliable grid operation and integration of variable renewable energy sources; g) Evolve a dynamic and robust electricity infrastructure for better consumer services; h) Facilitate supply of adequate and uninterrupted power to all categories of consumers; i) Ensure creation of adequate capacity including reserves in generation, transmission and distribution in advance, for reliability of supply of electricity to consumers. 	
<p>5.1 Introducing competition in different segments of the electricity industry is one of the key features of the Electricity Act, 2003. Competition will lead to significant benefits to consumers through reduction in capital costs and also efficiency of operations. It will also facilitate the price to be determined competitively. The Central Government has already issued detailed guidelines for tariff based bidding process for procurement of electricity by distribution licensees for medium or long-term period vide gazette notification dated 19th January, 2005.</p>	<p>5.1 Introducing competition in different segments of the electricity industry is one of the key features of the Electricity Act, 2003. Competition will lead to significant benefits to consumers through reduction in capital costs and also efficiency of operations. It will also facilitate the price to be determined competitively. The Central Government has already issued detailed guidelines for tariff based bidding process for procurement of electricity by distribution licensees.</p>	
<p>(Part of 5.1) All future requirement of power should be procured competitively by distribution licensees except in cases of expansion of existing projects or where there is a</p>	<p>5.2 All future requirement of power should continue to be procured competitively by distribution licensees except in cases of expansion of existing projects or where there is a company owned or</p>	<p>Suitable provision in the existing MYT Regulations by CERC/SERC/JERC that in case of expansion, for passing on the benefit of sharing of infrastructure, and for determination of tariff by the Commission.</p>

<p>State controlled/owned company as an identified developer and where regulators will need to resort to tariff determination based on norms provided that expansion of generating capacity by private developers for this purpose would be restricted to one time addition of not more than 50% of the existing capacity.</p> <p>Even for the Public Sector projects, tariff of all new generation and transmission projects should be decided on the basis of competitive bidding after a period of five years or when the Regulatory Commission is satisfied that the situation is ripe to introduce such competition.</p>	<p><u>controlled by the State Government</u> as an identified developer and where regulators will need to resort to tariff determination based on norms provided that expansion of generating capacity by private developers for this purpose would be restricted to one time addition of not more than <u>100% of the existing capacity</u>.</p> <p>Provided further that the Appropriate Commission, as defined in the Electricity Act, 2003, shall ensure that in case of expansion of such projects, the benefit of sharing of infrastructure of existing project and efficiency of new technology is passed on to consumers through tariff.</p> <p>Provided also that the State Government can notify a policy to encourage investment in the State by allowing setting up of generating plants, including from renewable energy sources out of which a maximum of 35% of the installed capacity can be procured by the Distribution Licensees of that State for which the tariff may be determined under Section 62 of the Electricity Act, 2003.</p> <p>Provided that notwithstanding the provision contained in para 5.11(j) of the policy, the tariff for such 35% of the installed capacity shall be determined by SERC.</p> <p>However, the 15% of power outside long term PPAs allowed under para 5.7.1 of National Electricity Policy shall not be included in 35% allowed to be procured by Distribution Licensees of the State.</p>	
	<p>New Provision</p> <p>5.3 The tariff of all new generation and transmission projects of company <u>owned or controlled by the Central Government</u> shall continue to be determined on the basis of competitive bidding as per the Tariff Policy notified on 6th January, 2006 unless otherwise specified by the</p>	<p>SERC/JERC to specify the threshold limit for intra-state transmission projects through competitive bidding process.</p>

	<p>Central Government on case to case basis.</p> <p>Further, intra-state transmission projects shall be developed by State Government through competitive bidding process for projects costing above a threshold limit which shall be decided by the SERCs.</p>	
	<p>New Provision</p> <p>5.4 The Central Electricity Regulatory Commission in consultation with Central Electricity Authority and other stakeholders shall frame within six months, regulations for determination of tariff for generation of electricity from projects using coal washery rejects. These regulations shall also be followed by State Electricity Regulatory Commissions.</p> <p>Provided that procurement of power from coal washery rejects based projects developed by Central/State PSUs, Joint Venture between Government Company and Company other than Government Company in which shareholding of company other than Government Company either directly or through any of its subsidiary company or associate company shall not be more than 26% of the paid up share capital, can be done under Section 62 of the Act.</p>	CERC to notify regulations for determination of tariff for projects based on coal washery rejects.
<p>5.1 (partly)</p> <p>“Provided that a developer, of a hydroelectric project, not being a State controlled/owned company, would have the option of getting the tariff determined by the appropriate Commission on the basis of performance based cost of service regulations if the following conditions are fulfilled:</p> <p>(a)The appropriate Commission is satisfied that the project site has been allotted to the developer by the concerned State Government after following a</p>	<p>5.5 The developer of a hydroelectric project, including Pumped Storage Plant (PSP), would have the option of getting the tariff determined by the Appropriate Commission for the power to be sold through long term Power Purchase Agreements (PPAs) on the basis of performance based cost of service regulations if the following conditions are fulfilled:</p> <p>(a) The Appropriate Commission is satisfied that the project site has been allotted to the developer by the concerned State Government after following a transparent</p>	Suitable provision for determination of tariff for Pumped Storage Plants by the CERC/ SERC/JERC

<p>transparent two stage process. The first state should be for pre qualification on the basis of criteria such as financial strength as measured by networth, past experience of developing infrastructure project of similar size, past track record of developing projects on time and within estimated costs, turnover and ability to meet performance guarantee etc. In the second stage, bids are to be called on the basis of only one single quantifiable parameter, such as, free power in excess of 13%, equity participation offered to the State Government, or upfront payment etc.</p> <p>b) Projects of more than 100 MW design capacity for which sites have been awarded earlier by following a transparent process and on the basis of predetermined set of criteria would also be covered in this dispensation.</p> <p>c) Concurrence of CEA (if required under section 8 of the Act), financial closure, award of work and long term PPA (of more than 35 years) of the capacity specified in (d) below with distribution licensees are completed by 31.12.2010.</p> <p>d) Long term PPA would be at least for 60% of the total saleable design energy. However, this figure of 60% would get enhanced by 5% for delay of every six months in commissioning of the last unit of the project against the scheduled date approved by the Appropriate Commission before commencement of the construction.</p>	<p>two stage process. The first stage should be for prequalification on the basis of criteria of financial strength, past experience of developing infrastructure projects of similar size, past track record of developing projects on time and within estimated costs, turnover and ability to meet performance guarantee etc. In the second stage, bids are to be called on the basis of only one single quantifiable parameter, such as, additional free power in excess of percentage of free power, as notified by the Central Government, equity participation offered to the State Government, or any other parameter to be notified by the Central Government from time to time.</p> <p>(b) Concurrence of CEA (if required under Section 8 of the Act), financial closure, award of work and long term Power Purchase Agreement (PPA) (of the duration of 35 years or more) of the capacity specified in (c) below with distribution licensees are completed by 15.08.2022.</p> <p>(c) Long term PPA is firmed up for 60% or more of the total saleable design energy, balance being allowed for merchant sale. Provided that distribution licensees can extend the duration of long term PPA beyond 35 years for a further period of 15 years at the existing terms and conditions subject to the approval of Appropriate Commission. Provided further that nothing contained in this clause shall apply to Pumped Storage Plants (PSP).</p> <p>(d) The time period for commissioning of all the units of</p>	<p>CERC/SERC/JERC to make suitable provision in</p>
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<p>The time period for commissioning of all the units of the project shall be four years from the date of approval of the commissioning schedule by the Appropriate Commission. However, the Appropriate Commission may, after recording reasons in writing, fix longer time period for large storage projects and run-off-the river projects of more than 500 MW capacity. Adherence to the agreed timelines to achieve the fixed commissioning schedule shall be verified through independent third party verification.</p> <p>e) Award of contracts for supply of equipment and construction of the project, either through a turnkey or through well defined packages, are done on the basis of international competitive bidding.</p>	<p>the project shall be fixed at four years from the date of approval of the commissioning schedule by the Appropriate Commission. However, the Appropriate Commission may, after recording reasons in writing, fix longer time period for hydro electric projects (reservoir as well as run-of- river projects) of more than 100 MW capacity. Agreed timelines to achieve the fixed commissioning schedule alongwith penalty for delay shall be decided by the Appropriate Commission in consultation with the Central Electricity Authority. The Appropriate Commission shall allow pass through the Interest During Construction (IDC) and Financing Cost (FC) only upto the period of delay not attributable to the developer, as approved by the CEA.</p> <p>(e) Award of contracts for supply of equipment and construction of the project, either through a turnkey or through well defined packages, are done on the basis of international competitive bidding.</p>	<p>regulations allowing pass through the Interest During Construction (IDC) and Financing Cost (FC) only upto the period of delay not attributable to the developer.</p>
	<p>New Provision</p> <p>5.6 Notwithstanding anything contained in Para 5.5 above, the developers of hydro electric projects of more than 100 MW design capacity for which sites have been awarded earlier by following a transparent process and on the basis of pre-determined set of criteria would have the option of getting the tariff determined by the Appropriate Commission for the power to be sold through long term PPA on the basis of cost plus under Section 62 of the Act.</p>	
<p>5.7 (part)</p> <p>In cases, where the conditions mentioned above at (a) to (e) are fulfilled, the Appropriate Commission shall determine tariff ensuring the following :</p>	<p>5.7 In case of projects covered under Para 5.5 and 5.6, the Appropriate Commission shall determine tariff ensuring the following:</p> <p>(i) Any expenditure incurred or committed to be</p>	

<p>i) Any expenditure incurred or committed to be incurred by the project developer for getting project site allotted (except free power upto 13%) would neither be included in the project cost, nor any such expenditure shall be passed through tariff.</p> <p>ii) The project cost shall include the - cost of the approved R&R plan of the Project which shall be in conformity with the following: (a) The National Rehabilitation & Resettlement Policy currently in force; (b) the R&R package as enclosed at appendix; And the cost of project developers' 10% contribution towards RGGVY project in the affected area as per the project report sanctioned by the Ministry of Power.</p> <p>iii) Annual fixed charges shall be taken pro-rata to the saleable design energy tied up on the basis of long term PP As with respect of total saleable design energy. The total saleable design energy shall be arrived at by deducting the following from the design energy at the bus bar: a) 13% of free power (12% for the host Government and 1% for contribution towards Local Area Development Fund as constituted by the State Government). This 12% free power may be suitably staggered as decided by the State Government.</p> <p>b) Energy corresponding to 100 units of electricity to be provided free of cost every Project Affected family notified by the State Government to be offered through the concerned distribution licensee in the designated resettlement area/projects area for a period of ten years from the date of commissioning.”</p>	<p>incurred by the project developer for getting project site allotted (except free power as notified) would neither be included in the project cost, nor any such expenditure shall be passed through in tariff.</p> <p>(ii) The project cost shall include the cost of the approved R&R plan of the Project which shall be in conformity with the following: (a) the National Rehabilitation & Resettlement Policy currently in force; (b) the R&R package as enclosed at appendix.</p> <p>(iii) Annual fixed charges shall be taken pro-rata to the saleable design energy tied up on the basis of long term PPAs with respect to total saleable design energy. The total saleable design energy shall be arrived at by deducting the following from the design energy at the bus bar: a) Free power as notified by the Central Government from time to time for the host State and the riparian State and percentage for contribution towards Local Area Development Fund as constituted by the State Government. This free power may be suitably staggered as decided by the State Government. b) Energy corresponding to 100 units of electricity to be provided free of cost every month to every Project Affected Family notified by the State Government to be offered through the concerned distribution licensee in the designated resettlement</p>	
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	area/projects area for a period of ten years from the date of commissioning.	
	<p>New Provision</p> <p>5.8 The Appropriate Commission shall provide for suitable regulatory framework for incentivizing the developers of Hydro Electric Projects (HEPs) for using long-term financial instruments in order to reduce the tariff burden in the initial years.</p>	CERC/ SERC/JERC to notify provisions for incentivizing HEPs.
	Provision at 5.2 of TP2006 has been placed at 5.9	
	<p>New Provision</p> <p>5.10 Consumer interest is best served in ensuring viability and sustainability of the entire value chain viz., generation, transmission and distribution of electricity, while at the same time facilitating power supply at reasonable rate to consumers. The financial turnaround/restructuring plans are approved by the Appropriate Government from time to time to achieve this objective. The Appropriate Government as well as the Appropriate Commission while implementing such plans shall ensure viability of the generation, transmission and distribution in terms of recovery of all prudent costs.</p>	SERC/JERC to notify regulations for recovery of all prudent costs pertaining to generation, transmission and distribution.
<p>5.3 (a) Return on Investment</p> <p>While allowing the total capital cost of the project, the Appropriate Commission would ensure that these are reasonable and to achieve this objective, requisite benchmarks on capital costs should be evolved by the Regulatory Commissions.</p> <p>Explanation: For the purposes of return on equity, any</p>	<p>5.11 (a) Return on Investment</p> <p>....</p> <p>While allowing the total capital cost of the project, the Appropriate Commission would ensure that these are reasonable and to achieve this objective, requisite benchmarks on capital costs should be evolved by the Regulatory Commissions. The Central Commission may adopt either Return on Equity or Return on Capital</p>	<p>CERC to adopt RoE/RoCE in the interest of consumers.</p> <p>SERC/JERC to consider distribution and supply margin as basis for allowing returns in distribution.</p> <p>FOR to carry out study on price-cap regulations for distribution and supply margins.</p>

<p>cash resources available to the company from its share premium account or from its internal resources that are used to fund the equity commitments of the project under consideration should be treated as equity subject to limitations contained in (b) below.</p> <p>The Central Commission may adopt the alternative approach of regulating through return on capital. The Central Commission may adopt either Return on Equity approach or Return on Capital approach whichever is considered better in the interest of the consumers.</p> <p>The State Commission may consider ‘distribution margin’ as basis for allowing returns in distribution business at an appropriate time. The Forum of Regulators should evolve a comprehensive approach on “distribution margin” within one year. The considerations while preparing such an approach would, inter-alia, include issues such as reduction in Aggregate Technical and Commercial losses, improving the standards of performance and reduction in cost of supply.</p>	<p>approach whichever is considered better in the interest of the consumers.</p> <p>The State Commission may consider ‘distribution and supply margin’ as basis for allowing returns in distribution business at an appropriate time. The State Commission may also consider price cap regulation based on comprehensive study. The Forum of Regulators should evolve a comprehensive approach in this regard. The considerations while preparing such an approach would, inter-alia, include issues such as reduction in Aggregate Technical and Commercial losses, improving the standards of performance and reduction in cost of supply.</p>	
<p>c) Depreciation</p> <p>The Central Commission may notify the rates of depreciation in respect of generation and transmission assets. The depreciation rates so notified would also be applicable for distribution with appropriate modification as may be evolved by the Forum of Regulators. The rates of depreciation so notified would be applicable for the purpose of tariffs as well as accounting.</p> <p>There should be no need for any advance against depreciation.</p> <p>Benefit of reduced tariff after the assets have been fully depreciated should remain available to the consumers.</p>	<p>5.11 (c) Depreciation</p> <p>The Central Commission may notify the rates of depreciation in respect of generation and transmission assets. The depreciation rates so notified would also be applicable for distribution assets with appropriate modification as may be evolved by the Forum of Regulators.</p> <p>Provided that the Appropriate Commission shall specify, for the purpose of tariff determination, a upper ceiling of the rate of depreciation to be applicable during the useful life of the project and the developer shall have the option of indicating, while seeking approval for tariff, lower rate of depreciation subject to the aforesaid ceiling.</p>	<p>CERC to specify upper ceiling of rate of depreciation, while allowing the developer to exercise option for a lower depreciation.</p> <p>FOR to suggest appropriate depreciation rates for distribution.</p>

	<p>The rates of depreciation so notified would be applicable for the purpose of tariffs as well as accounting.</p> <p>There should be no need for any advance against depreciation.</p> <p>Benefit of reduced tariff after the assets have been fully depreciated should remain available to the consumers.</p> <p>Notwithstanding the above, power from those plants of a generating company, where either whose PPAs have expired or plants have completed their useful life, may be bundled with power from renewable generating plants to be set up through the process of bidding or for which the equipment for setting up such plant is procured through competitive bidding. In such cases, power from such plants can be reallocated to beneficiaries purchasing power from renewable energy generating plants on the principles to be decided by Appropriate Government. The Obligated Entities which finally buy such power shall account towards their renewable purchase obligation to the extent of power bought from renewable energy generating plants.</p> <p>The scheduling and despatch of such conventional and renewable generating plants shall be done separately.</p>	<p>CERC/ SERC/JERC to notify regulations for bundling of Renewable Power along with power from plants whose useful life has been completed, while allowing the obligated entities to account for the RE power towards RPO.</p>
<p>5.3 e) Cost of Management of Foreign Exchange Risk Foreign exchange variation risk shall not be a pass through. Appropriate costs of hedging and swapping to take care of foreign exchange variations should be allowed for debt obtained in foreign currencies. This provision would be relevant only for the projects where tariff has not been determined on the basis of competitive bids.</p>	<p>5.11 (e) Cost of Management of Foreign Exchange Risk</p> <p>Foreign exchange variation risk shall not be a pass through. However, appropriate costs of hedging and swapping to take care of foreign exchange variations should be allowed for debt obtained in foreign currencies. This provision would be relevant only for the projects where tariff has not been determined on the basis of competitive bids.</p>	
<p>5.3 f) Operating Norms Suitable performance norms of operations together with</p>	<p>5.11 (f) Operating Norms</p>	

<p>incentives and dis-incentives would need be evolved along with appropriate arrangement for sharing the gains of efficient operations with the consumers. Except for the cases referred to in para 5.3 (h)(2), the operating parameters in tariffs should be at “normative levels” only and not at “lower of normative and actuals”. This is essential to encourage better operating performance. The norms should be efficient, relatable to past performance, capable of achievement and progressively reflecting increased efficiencies and may also take into consideration the latest technological advancements, fuel, vintage of equipments, nature of operations, level of service to be provided to consumers etc. Continued and proven inefficiency must be controlled and penalized.</p> <p>The Central Commission would, in consultation with the Central Electricity Authority, notify operating norms from time to time for generation and transmission. The SERC would adopt these norms. In cases where operations have been much below the norms for many previous years, the SERCs may fix relaxed norms suitably and draw a transition path over the time for achieving the norms notified by the Central Commission.</p> <p>Operating norms for distribution networks would be notified by the concerned SERCs. For uniformity of approach in determining such norms for distribution, the Forum of Regulators should evolve the approach including the guidelines for treatment of state specific distinctive features.</p>	<p>Suitable performance norms of operations together with incentives and disincentives would need to be evolved along with appropriate arrangement for sharing the gains of efficient operations with the consumers. Except for the cases referred to in para 5.11(h)(2), the operating parameters in tariffs should be at “normative levels” only and not at “lower of normative and actuals”. This is essential to encourage better operating performance. The norms should be efficient, relatable to past performance, capable of achievement and progressively reflecting increased efficiencies and may also take into consideration the latest technological advancements, fuel, vintage of equipments, nature of operations, level of service to be provided to consumers etc. Continued and proven inefficiency must be controlled and penalized.</p> <p>The Central Commission would, in consultation with the Central Electricity Authority, notify operating norms from time to time for generation and transmission. The SERC would adopt these norms. In cases where operations have been much below the norms for many previous years, the SERCs may fix relaxed norms suitably and draw a transition path over the time for achieving the norms notified by the Central Commission, or phase them out in accordance with the norms specified by the Authority in this regard.</p> <p>Operating norms for distribution networks would be notified by the concerned SERCs. For uniformity, the Forum of Regulators should evolve model guidelines taking into consideration the state specific distinctive features.</p>	<p>FOR to evolve model guidelines on operating norms for distribution networks.</p>
<p>5.3</p> <p>g) Renovation and Modernisation</p>	<p>5.11</p> <p>(g) Renovation and Modernization</p> <p>Renovation and modernization of generation plants (including repowering of wind generating plants) need to</p>	<p>CERC/ SERC/JERC to notify regulations for allowing R&M (before completing their useful life) to achieve</p>

<p>Renovation and modernization (it shall not include periodic overhauls) for higher efficiency levels needs to be encouraged. A multi-year tariff (MYT) framework may be prescribed which should also cover capital investments necessary for renovation and modernization and an incentive framework to share the benefits of efficiency improvement between the utilities and the beneficiaries with reference to revised and specific performance norms to be fixed by the Appropriate Commission. Appropriate capital costs required for pre-determined efficiency gains and/or for sustenance of high level performance would need to be assessed by the Appropriate Commission.</p>	<p>be encouraged for higher efficiency levels even though they may have not completed their useful life. This shall not include periodic overhauls. A Multi-Year Tariff (MYT) framework may be prescribed which should also cover capital investments necessary for renovation and modernization and an incentive framework to share the benefits of efficiency improvement between the utilities and the beneficiaries with reference to revised and specific performance norms to be fixed by the Appropriate Commission. Appropriate capital costs required for predetermined efficiency gains and/or for sustenance of high level performance would need to be assessed by the Appropriate Commission.</p>	<p>higher efficiency levels.</p>
	<p>New Provision</p> <p>5.11 (j) Composite Scheme</p> <p>Sub-section (b) of Section 79(1) of the Act provides that Central Commission shall regulate the tariff of generating company, if such generating company enters into or otherwise have a composite scheme for generation and sale of electricity in more than one State.</p> <p>Explanation: The composite scheme as specified under section 79(1) of the Act shall mean a scheme by a generating company for generation and sale of electricity in more than one State, having signed long-term or medium-term PPA prior to the date of commercial operation of the project (the COD of the last unit of the project will be deemed to be the date of commercial operation of the project) for sale of atleast 10% of the capacity of the project to a distribution licensee outside the State in which such project is located.</p>	<p>Jurisdiction of CERC: Composite scheme defined.</p>
<p>5.5 Though, as per the provisions of the Act, the outer limit to introduce open access in distribution is</p>	<p>Provision at 5.4 of TP2006 has been placed at 5.12</p> <p>5.13 The Act provides for introduction of open access for consumers of one megawatt and above in a</p>	<p>SERC/JERC to notify regulations for providing open access to various categories of consumers.</p>

<p>27.1.2009, it would be desirable that, in whichever states the situation so permits, the Regulatory Commissions introduce such open access earlier than this deadline.</p>	<p>time bound manner. The Regulatory Commissions shall introduce open access for different categories of consumers as per the provisions of the Act.</p>	
<p>6.1 Procurement of power</p> <p>As stipulated in para 5.1, power procurement for future requirements should be through a transparent competitive bidding mechanism using the guidelines issued by the Central Government vide gazette notification dated 19th January, 2005. These guidelines provide for procurement of electricity separately for base load requirements and for peak load requirements. This would facilitate setting up of generation capacities specifically for meeting peak.</p>	<p>6.1 Procurement of power</p> <p>As stipulated in para 5.1, power procurement for future requirements should be through a transparent competitive bidding mechanism using the guidelines issued by the Central Government from time to time. These guidelines provide for procurement of electricity separately for base load requirements and for peak load requirements. This would facilitate setting up of generation capacities specifically for meeting such requirements.</p> <p>However, some of the competitively bid projects as per the guidelines dated 19th January, 2005 have experienced difficulties in getting the required quantity of coal from Coal India Limited (CIL). In case of reduced quantity of domestic coal supplied by CIL, vis-à-vis the assured quantity or quantity indicated in Letter of Assurance/FSA the cost of imported/market based e-auction coal procured for making up the shortfall, shall be considered for being made a pass through by Appropriate Commission on a case to case basis, as per advisory issued by Ministry of Power vide OM No. FU-12/2011-IPC (Vol-III) dated 31.7.2013.</p>	<p>CERC/ SERC/JERC to allow pass through of the cost of imported/market based e-auction coal for making up the shortfall in the event of the CIL's failure to supply assured quantity of coal.</p>
<p>6.2 Tariff structuring and associated issues</p> <p>(1) A two-part tariff structure should be adopted for all long term contracts to facilitate Merit Order dispatch. According to National Electricity Policy, the Availability Based Tariff (ABT) is to be introduced at State level by April 2006. This framework would be extended to generating stations (including grid connected captive plants of capacities as determined by</p>	<p>6.2 Tariff structuring and associated issues</p> <p>(1) A two-part tariff structure should be adopted for all long-term and medium-term contracts to facilitate Merit Order dispatch. According to National Electricity Policy, the Availability Based Tariff (ABT) is also to be introduced at State level. This framework would be extended to generating stations (including grid connected captive plants of</p>	<p>CERC/ SERC/JERC to notify (i) two part tariff</p>

<p>the SERC). The Appropriate Commission may also introduce differential rates of fixed charges for peak and off peak hours for better management of load.</p>	<p>capacities as determined by the SERC). The Appropriate Commission shall introduce differential rates of fixed charges for peak and off peak hours for better management of load within a period of two years.</p> <p>Power stations are required to be available and ready to dispatch at all times. Notwithstanding any provision contained in the Power Purchase Agreement (PPA), in order to ensure better utilization of un-requisitioned generating capacity of generating stations, based on regulated tariff under Section 62 of the Electricity Act 2003, the procurer shall communicate, at least twenty four hours before 00.00 hours of the day when the power and quantum thereof is not requisitioned by it enabling the generating stations to sell the same in the market in consonance with laid down policy of Central Government in this regard. The developer and the procurers signing the PPA would share the gains realized from sale, if any, of such un-requisitioned power in market in the ratio of 50:50, if not already provided in the PPA. Such gain will be calculated as the difference between selling price of such power and fuel charge. It should, however, be ensured that such merchant sale does not result in adverse impact on the original beneficiary(ies) including in the form of higher average energy charge vis-à-vis the energy charge payable without the merchant sale. For the projects under section 63 of the Act, the methodology for such sale may be decided by the Appropriate Commission on mutually agreed terms between procurer and generator or unless already specified in the PPA.</p>	<p>structure and (ii) differential tariffs for peak and off peak.</p> <p>CERC/ SERC/JERC to notify methodology for sale/purchase of Un Requisitioned Surplus Power.</p>
<p>6.2 Tariff structuring and associated issues</p>	<p>6.2 Tariff structuring and associated issues</p>	

<p>(2) Power Purchase Agreement should ensure adequate and bankable payment security arrangements to the Generating companies. In case of persisting default in spite of the available payment security mechanisms like letter of credit, escrow of cash flows etc. the generating companies may sell to other buyers.</p>	<p>(2) Power Purchase Agreement should ensure adequate and bankable payment security arrangements to the Generating companies. In case of persisting default on payment of agreed tariff as per PPA in spite of the available payment security mechanisms like letter of credit, escrow of cash flows etc. the generating companies may sell such power to other buyers.</p>	
	<p>New Provision 6.2 Tariff structuring and associated issues (4) After the award of bids, if there is any change in domestic duties, levies, cess and taxes imposed by Central Government, State Governments/Union Territories or by any Government instrumentality leading to corresponding changes in the cost, the same may be treated as “Change in Law” and may unless provided otherwise in the PPA, be allowed as pass through subject to approval of Appropriate Commission.</p>	<p>CERC/ SERC/JERC to suitably factor in “Change in Law” in orders/regulations.</p>
	<p>New Provision 6.2 Tariff structuring and associated issues (5) The thermal power plant(s) including the existing plants located within 50 km radius of sewage treatment plant of Municipality/local bodies/similar organization shall in the order of their closeness to the sewage treatment plant, mandatorily use treated sewage water produced by these bodies and the associated cost on this account be</p>	<p>SERC/JERC to suitably make provision in the regulations.</p>

	<p>allowed as a pass through in the tariff. Such thermal plants may also ensure back-up source of water to meet their requirement in the event of shortage of supply by the sewage treatment plant. The associated cost on this account shall be factored into the fixed cost so as not to disturb the merit order of such thermal plant. The shutdown of the sewage treatment plant will be taken in consultation with the developer of the power plant.</p>	
<p>6.3 Harnessing captive generation</p> <p>Captive generation is an important means to making competitive power available. Appropriate Commission should create an enabling environment that encourages captive power plants to be connected to the grid.</p> <p>Such captive plants could inject surplus power into the grid subject to the same regulation as applicable to generating companies. Firm supplies may be bought from captive plants by distribution licensees using the guidelines issued by the Central Government under section 63 of the Act.</p> <p>The prices should be differentiated for peak and off-peak supply and the tariff should include variable cost of generation at actual levels and reasonable compensation for capacity charges.</p> <p>Alternatively, a frequency based real time mechanism can be used and the captive generators can be allowed to inject into the grid under the ABT mechanism.</p> <p>Wheeling charges and other terms and conditions for implementation should be determined in advance by the respective State Commission, duly ensuring that the charges are reasonable and fair.</p> <p>Grid connected captive plants could also supply power</p>	<p>6.3 Harnessing captive generation</p> <p>Captive generation is an important means to making competitive power available. Appropriate Commission should create an enabling environment that encourages captive power plants to be connected to the grid.</p> <p>Such captive plants could supply surplus power through grid subject to the same regulation as applicable to generating companies. Firm supplies may be bought from captive plants by distribution licensees using the guidelines issued by the Central Government under section 63 of the Act taking into account second proviso of para 5.2 of this Policy.</p> <p>The prices should be differentiated for peak and off-peak supply and the tariff should include variable cost of generation at actual levels and reasonable compensation for capacity charges.</p> <p>Wheeling charges and other terms and conditions for implementation should be determined in advance by the respective State Commission, duly ensuring that the charges are reasonable and fair.</p> <p>Grid connected captive plants could also supply power to non-captive users connected to the grid through available transmission facilities based on negotiated tariffs. Such sale of electricity would be</p>	

<p>to non-captive users connected to the grid through available transmission facilities based on negotiated tariffs. Such sale of electricity would be subject to relevant regulations for open access.</p>	<p>subject to relevant regulations for open access including compliance of relevant provisions of rule 3 of the Electricity Rules, 2005.</p>	
<p>6.4 Non-conventional and renewable sources of energy generation including co-generation : (1) Pursuant to provisions of section 86(1)(e) of the Act, the Appropriate Commission shall fix a minimum percentage of the total consumption of electricity in the area of a distribution licensee for purchase of energy from such sources, taking into account availability of such resources in the region and its impact on retail tariffs. Such percentage for purchase of energy should be made applicable for the tariffs to be determined by the SERCs latest by April I, 2006.</p> <p>(i) Within the percentage so made applicable, to start with, the SERCs shall also reserve a minimum percentage for purchase of solar energy from the date of notification in the Official Gazette which will go up to 0.25% by the end of 2012-2013 and further up to 3% by 2022</p>	<p>6.4 Renewable sources of energy generation including Co-generation from renewable energy sources:</p> <p>(1) Pursuant to provisions of section 86(1)(e) of the Act, the Appropriate Commission shall fix a minimum percentage of the total consumption of electricity in the area of a distribution licensee for purchase of energy from renewable energy sources, taking into account availability of such resources and its impact on retail tariffs. Cost of purchase of renewable energy shall be taken into account while determining tariff by SERCs. Long term growth trajectory of Renewable Purchase Obligations (RPOs) will be prescribed by the Ministry of Power in consultation with MNRE.</p> <p>Provided that cogeneration from sources other than renewable sources shall not be excluded from the applicability of RPOs.</p> <p>(i) Within the percentage so made applicable, to start with, the SERCs shall also reserve a minimum percentage for purchase of solar energy from the date of notification of this policy which shall be such that it reaches 8% of total consumption of energy, excluding Hydro Power, by March 2022 or as notified by the Central Government from time to time.</p> <p>(ii) Distribution Licensee(s) shall compulsorily procure 100% power produced from all the Waste-to-Energy plants in the State, in the ratio of their procurement of power from all</p>	<p>SERC/JERC to notify</p> <ul style="list-style-type: none"> • RPO (along with a separate target for solar power) and also to consider cost towards purchase of RE power for determination of tariff. • Framework for compulsorily procuring 100% power generated by Waste-to-Energy plants. • Mandatory RPO compliance by cogeneration based on sources other than RE. <p>CERC to provide for</p> <ul style="list-style-type: none"> • Technology and vintage based REC multipliers

<p>(ii) It is desirable that purchase of energy from non-conventional sources of energy takes place more or less in the same proportion in different States. To achieve this objective in the current scenario of large availability of such resources only in certain parts of the country, an appropriate mechanism such as Renewable Energy Certificate (REC) would need to be evolved. Through such a mechanism, the renewable energy based generation companies can sell the electricity to local distribution licensee at the rates for conventional power and can recover the balance cost by selling certificates to other distribution companies and obligated entities enabling the latter to meet their renewable power purchase obligations. In view of the comparatively higher cost of electricity from solar energy currently, the REC mechanism should also have a solar specific REC.</p> <p>(iii) It will take some time before non-conventional technologies can compete with conventional sources in terms of cost of electricity. Therefore, procurement by distribution companies shall be done at preferential tariffs determined by the Appropriate Commission.</p>	<p>sources including their own, at the tariff determined by the Appropriate Commission under Section 62 of the Act.</p> <p>(iii) It is desirable that purchase of energy from renewable sources of energy takes place more or less in the same proportion in different States. To achieve this objective in the current scenario of large availability of such resources only in certain parts of the country, an appropriate mechanism such as Renewable Energy Certificate (REC) would need to be promoted. Through such a mechanism, the renewable energy based generation companies can sell the electricity to local distribution licensee at the rates for conventional power and can recover the balance cost by selling certificates to other distribution companies and obligated entities enabling the latter to meet their renewable power purchase obligations. The REC mechanism should also have a solar specific REC.</p> <p>(iv) Appropriate Commission may also provide for a suitable regulatory framework for encouraging such other emerging renewable energy technologies by prescribing separate technology based REC multiplier (i.e. granting higher or lower number of RECs to such emerging technologies for the same level of generation). Similarly, considering the change in prices of renewable energy technologies with passage of time, the Appropriate Commission may prescribe vintage based REC multiplier (i.e. granting higher or lower number of RECs</p>	
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	for the same level of generation based on year of commissioning of plant).	
<p>6.4 Renewable sources of energy generation including Co-generation from renewable energy sources:</p> <p>(2) Such procurement by Distribution Licensees for future requirements shall be done, as far as possible, through competitive bidding process under Section 63 of the Act within suppliers offering energy from same type of non-conventional sources. In the long-term, these technologies would need to compete with other sources in terms of full costs.</p>	<p>6.4 Renewable sources of energy generation including Co-generation from renewable energy sources:</p> <p>(2) States shall endeavor to procure power from renewable energy sources through competitive bidding to keep the tariff low, except from the waste to energy plants. Procurement of power by Distribution Licensee from renewable energy sources from projects above the notified capacity, shall be done through competitive bidding process, from the date to be notified by the Central Government.</p> <p>However, till such notification, any such procurement of power from renewable energy sources projects, may be done under Section 62 of the Electricity Act, 2003. While determining the tariff from such sources, the Appropriate Commission shall take into account the solar radiation and wind intensity which may differ from area to area to ensure that the benefits are passed on to the consumers.</p>	<p>Competitive bidding for RE procurement to be mandatory from a date to be notified by Central Government.</p> <p>RE Tariff Regulations of CERC/ SERC/ JERC to provide for area / zone wise CUF.</p>
<p>6.4 Renewable sources of energy generation including Co-generation from renewable energy sources:</p> <p>(3) The Central Commission should lay down guidelines within three months for pricing nonfarm power, especially from non-conventional sources, to be followed in cases where such procurement is not through competitive bidding.</p>	<p>6.4 Renewable sources of energy generation including Co-generation from renewable energy sources:</p> <p>(3) The Central Commission should lay down guidelines for pricing intermittent power, especially from renewable energy sources, where such procurement is not through competitive bidding. The tariff stipulated by CERC shall act as a ceiling for that category.</p>	<p>CERC to notify guidelines for pricing intermittent RE power.</p> <p>Tariff determined by CERC to act as ceiling tariff.</p>

	<p>New Provision</p> <p>6.4 Renewable sources of energy generation including Co-generation from renewable energy sources:</p> <p>(4) In order to incentivize the Distribution Companies to procure power from renewable sources of energy, the Central Government may notify, from time to time, an appropriate bid-based tariff framework for renewable energy, allowing the tariff to be increased progressively in a back-loaded or any other manner in the public interest during the period of PPA, over the life cycle of such a generating plant. Correspondingly, the procurer of such bid-based renewable energy shall comply with the obligations for payment of tariff so determined.</p>	
	<p>New Provision</p> <p>6.4 Renewable sources of energy generation including Co-generation from renewable energy sources:</p> <p>(5) In order to promote renewable energy sources, any generating company proposing to establish a coal/lignite based thermal generating station after a specified date shall be required to establish such renewable energy generating capacity or procure and supply renewable energy equivalent to such capacity, as may be prescribed by the Central Government from time to time after due consultation with stakeholders. The renewable energy produced by each generator may be bundled with its thermal generation for the purpose of sale. In case an obligated entity procures this renewable power, then the SERCs will consider the obligated</p>	<p>CERC/ SERC/ JERC to notify regulations</p> <ul style="list-style-type: none"> • allowing RE power bundled with thermal power for accounting towards RPO by the obligated entities. • Allowing RE power generated from additional RE capacity for accounting towards RPO by the obligated entities.

	<p>entity to have met the Renewable Purchase Obligation (RPO) to the extent of power bought from such renewable energy generating stations.</p> <p>Provided further that in case any existing coal and lignite based thermal power generating station, with the concurrence of power procurers under the existing Power Purchase Agreements, chooses to set up additional renewable energy generating capacity, the power from such plant shall be allowed to be bundled and tariff of such renewable energy shall be allowed to be pass through by the Appropriate Commission. The Obligated Entities who finally buy such power shall account towards their renewable purchase obligations.</p> <p>Provided also that scheduling and despatch of such conventional and renewable generating plants shall be done separately.</p>	
	<p>New Provision</p> <p>New Provision</p> <p>6.4 Renewable sources of energy generation including Co-generation from renewable energy sources:</p> <p>(6) In order to further encourage renewable sources of energy, no inter-State transmission charges and losses may be levied till such period as may be notified by the Central Government on transmission of the electricity generated from solar and wind sources of energy through the inter-state transmission system for sale.</p>	<p>CERC not to levy inter-state transmission charges and losses on transmission of solar/wind power through inter-state transmission system, till such time as may be notified by the Central Government.</p>

	<p>New Provision</p> <p>6.4 Renewable sources of energy generation including Co-generation from renewable energy sources:</p> <p>(7) Appropriate Commission may provide regulatory framework to facilitate generation and sale of electricity from renewable energy sources particularly from roof-top solar system by any entity including local authority, Panchayat Institution, user institution, cooperative society, Non-Governmental Organization, franchisee or by Renewable Energy Service Company. The Appropriate Government may also provide complementary policy support for this purpose.</p> <p>Explanation: “Renewable Energy Service Company” means an energy service company which provides renewable energy to the consumers in the form of electricity.</p>	<p>SERC/ JERC to notify regulations on generation from roof-top solar (including by RESCO).</p>
<p>7.0 TRANSMISSION <i>The transmission system in the country consists of the regional networks, the inter-regional connections that carry electricity across the five regions, and the State networks. The national transmission network in India is presently under development. Development of the State networks has not been uniform and capacity in such networks needs to be augmented. These networks will play an important role in intra-State power flows and also in the regional and national flows. The tariff policy, insofar as transmission is concerned, seeks to achieve the following objectives:</i></p> <p>1. Ensuring optimal development of the transmission</p>	<p>7.0 TRANSMISSION</p> <p>The transmission system in the country consists of the regional networks, the inter-regional connections that carry electricity across the five regions and the State networks. Development of the State networks has not been uniform and capacity in such networks needs to be augmented. These networks will play an important role in intra-State power flows and also in the regional and national flows. The tariff policy, in so far as transmission is concerned, seeks to achieve the following objectives:</p> <p>1. Ensuring optimal development of the transmission network ahead of generation with</p>	

<p>network to promote efficient utilization of generation and transmission assets in the country; 2. Attracting the required investments in the transmission sector and providing adequate returns.</p>	<p>adequate margin for reliability and to promote efficient utilization of generation and transmission assets in the country; 2. Attracting the required investments in the transmission sector and providing adequate returns.</p>	
<p>7.1 Transmission pricing (1) A suitable transmission tariff framework for all inter-State transmission, including transmission of electricity across the territory of an intervening State as well as conveyance within the State which is incidental to such inter-state transmission, needs to be implemented with the objective of promoting effective utilization of all assets across the country and accelerated development of new transmission capacities that are required.</p>	<p>7.1 Transmission pricing (1) A suitable transmission tariff framework for all inter-State transmission, including transmission of electricity across the territory of an intervening State as well as conveyance within the State which is incidental to such inter-state transmission, has been implemented with the objective of promoting effective utilization of all assets across the country and accelerated development of new transmission capacities that are required.</p>	
<p>7.1 Transmission pricing (2) The National Electricity Policy mandates that the national tariff framework implemented should be sensitive to distance, direction and related to quantum of power flow. This would be developed by CERC taking into consideration the advice of the CEA. Such tariff mechanism should be implemented by 1st April 2006.</p>	<p>7.1 Transmission pricing (2) The National Electricity Policy mandates that the national tariff framework implemented should be sensitive to distance, direction and related to quantum of power flow. This has been developed by CERC taking into consideration the advice of the CEA. Sharing of transmission charges shall be done in accordance with such tariff mechanism as amended from time to time.</p>	
<p>7.1 Transmission pricing (3) Transmission charges, under this framework, can be determined on MW per circuit kilometer basis, zonal postage stamp basis, or some other pragmatic variant, the ultimate objective being to get the transmission system users to share the total transmission cost in</p>	<p>7.1 Transmission pricing (3) Transmission charges, under this framework, can be determined on MW per circuit kilometer basis, zonal postage stamp basis, or some other pragmatic variant, the ultimate objective being to get the transmission system users to share the total</p>	<p>CERC to make suitable provision in the relevant regulations</p>

<p>proportion to their respective utilization of the transmission system. The overall tariff framework should be such as not to inhibit planned development/augmentation of the transmission system, but should discourage non-optimal transmission investment.</p>	<p>transmission cost in proportion to their respective utilization of the transmission system. The 'utilization' factor should duly capture the advantage of reliability reaped by all. The spread between minimum and maximum transmission rates should be such as not to inhibit planned development/augmentation of the transmission system but should discourage non-optimal transmission investment.</p>	
<p>7.1 Transmission pricing</p> <p>(4) In view of the approach laid down by the NEP, prior agreement with the beneficiaries would not be a pre-condition for network expansion. CTU/STU should undertake network expansion after identifying the requirements in consonance with the National Electricity Plan and in consultation with stakeholders, and taking up the execution after due regulatory approvals.</p>	<p>7.1 Transmission pricing</p> <p>(4) In view of the approach laid down by the NEP, prior agreement with the beneficiaries would not be a pre-condition for network expansion. CTU/STU should undertake network expansion after identifying the requirements in consonance with the National Electricity Plan and in consultation with stakeholders and taking up the execution after due regulatory approvals. For smooth operation of the grid, efforts should be made to develop transmission system ahead of generation.</p>	
<p>7.1 Transmission pricing</p> <p>(5) The Central Commission would establish, within a period of one year, norms for capital and operating costs, operating standards and performance indicators for transmission lines at different voltage levels. Appropriate baseline studies may be commissioned to arrive at these norms.</p>	<p>7.1 Transmission pricing</p> <p>(5) The Central Commission has specified norms for capital and operating costs and laid down Standards of Performance for inter-State transmission licensees. Tariff determination and adherence to Standards of Performance shall be carried out in accordance with these norms, as amended from time to time.</p>	<p>CERC to suitably factor in the relevant regulations.</p>
<p>7.1 Transmission pricing</p> <p>(6) Investment by transmission developer other than CTU/STU would be invited through competitive bids. The Central Government will issue guidelines in three</p>	<p>7.1 Transmission pricing</p> <p>(6) Investment by transmission developer including CTU/STUs would be invited through competitive bids in accordance with the guidelines issued by the</p>	

<p>months for bidding process for developing transmission capacities. The tariff of the projects to be developed by CTU/STU after the period of five years or when the Regulatory Commission is satisfied that the situation is right to introduce such competition (as referred to in para 5.1) would also be determined on the basis of competitive bidding.</p>	<p>Central Government from time to time.</p>	
	<p>New Provision</p> <p>7.1 Transmission pricing</p> <p>(7) While all future inter-state transmission projects shall, ordinarily, be developed through competitive bidding process, the Central Government may give exemption from competitive bidding for (a) specific category of projects of strategic importance, technical upgradation etc. or (b) works required to be done to cater to an urgent situation on a case to case basis.</p>	
<p>7.1 Transmission Pricing</p> <p>(7) After the implementation of the proposed framework for the inter-State transmission, a similar approach should be implemented by SERCs in next two years for the intra-State transmission, duly considering factors like voltage, distance, direction and quantum of flow.</p>	<p>7.1 Transmission pricing</p> <p>(8) CERC has specified Regulation on framework for the inter-State transmission. A similar approach should be implemented by SERCs for the intra-State transmission, duly considering factors like voltage, distance, direction and quantum of flow.</p>	<p>SERCs to notify framework for intra-state transmission pricing based on distance, direction and quantum of flow on lines of similar framework evolved by CERC.</p>
<p>7.2 Approach to transmission loss allocation</p> <p>(1) Transactions should be charged on the basis of average losses arrived at after appropriately considering the distance and directional sensitivity, as applicable to relevant voltage level, on the transmission system. Based on the methodology laid down by the CERC in this regard for inter- state transmission, the Forum of Regulators may evolve a similar approach for intra-state transmission.</p>	<p>7.2 Transmission loss allocation</p> <p>(1) Transactions are being charged on the basis of average losses arrived at after appropriately considering the distance and directional sensitivity, as applicable to relevant voltage level, on the transmission system. Based on the methodology laid down by the CERC in this regard for inter-state transmission, the SERCs may evolve a similar</p>	<p>SERCs to notify methodology for loss allocation in intra-state transmission.</p>

<p>The loss framework should ensure that the loss compensation is reasonable and linked to applicable technical loss benchmarks. The benchmarks may be determined by the Appropriate Commission after considering advice of CEA.</p> <p>It would be desirable to move to a system of loss compensation based on incremental losses as present deficiencies in transmission capacities are overcome through network expansion.</p>	<p>framework for intra-state transmission.</p> <p>The loss framework should ensure that the loss compensation is reasonable and linked to applicable technical loss benchmarks. The benchmarks may be determined by the Appropriate Commission after considering advice of CEA.</p>	
	<p>New Provision</p> <p>7.3 Other issues in transmission</p> <p>(3) In extraordinary circumstances including threat to security to the State, public order or natural calamity, if the Central Government allocates power out of the unallocated share of the Central Generating Stations or otherwise, such allocation of power will have priority over short-term, medium-term and long-term access in this order.</p>	<p>CERC/SERC to suitably factor in the relevant regulations/orders</p>
	<p>New Provision</p> <p>7.4 Ancillary Services</p> <p>(1) The Central Commission may introduce the norms and framework for ancillary services, including the method of sharing the charges, necessary to support the power system or grid operation for maintaining power quality, reliability and security of the grid.</p> <p>(2) The Central Commission shall also consult the Central Electricity Authority, SERCs/JERCs, CTUs/STUs and NLDC/RLDC/SLDCs while specifying the norms for ancillary services.</p>	<p>CERC to notify and operationalise Ancillary Services framework.</p>

	<p>(3) The State Commission shall also adopt the norms and framework for ancillary services as specified by the Central Commission.</p>	<p>SERCs to notify norms/framework for ancillary services (adopting CERC norms/framework)</p>
	<p>New Provision</p> <p>8.0 DISTRIBUTION</p> <p>...</p> <p>Appropriate Commission should mandate Distribution Licensee to undertake load forecasting every year and to publish and submit to the Commission their short, medium and long-term power procurement plans to meet the load.</p> <p>The State Regulatory Commission will devise a specific trajectory so that 24 hours supply of adequate and uninterrupted power can be ensured to all categories of consumers by 2021-22 or earlier depending upon the prevailing situation in the State.</p> <p>Micro-grids supplying renewable energy are being set up in such areas where the grid has not reached or where adequate power is not available in the grid. Investment involved in setting up of such microgrids is substantial. One of the risks of investment is grid reaching the area before the completion of the project life and thereby making power from micro grids costly and unviable. In order to mitigate such risk and incentivize investment in microgrids, there is a need to put in place an appropriate regulatory framework to mandate compulsory purchase of power into the grid from such micro grids at a tariff to be determined under section 62 of the Act considering depreciated cost of investments and keeping in view industry benchmark and with a cap if necessary, as approved by the Appropriate Commission. The Appropriate Commission shall notify necessary</p>	<p>SERCs to notify mandating load forecasting by distribution licensees along with their power procurement plans.</p> <p>SERCs to devise trajectory to ensure 24x7 power supply by 2021-22 or earlier.</p> <p>SERC/JERC to notify regulations on micro grids including for mandatory purchase of power generated by micro-grids in the event of grid extension.</p>

	regulations in this regard within six months.	
<p>8.2 Framework for revenue requirements and costs</p> <p>8.2.1 The following aspects would need to be considered in determining tariffs:</p> <p>(2)</p> <p>The SERC shall undertake independent assessment of baseline data for various parameters for every distribution circle of the licensee and this exercise should be completed latest by March, 2007.</p> <p>The SERC shall also institute a system of independent scrutiny of financial and technical data submitted by the licensees.</p> <p>As the metering is completed upto appropriate level in the distribution network, latest by March, 2007, it should be possible to segregate technical losses. Accordingly technical loss reduction under MYT framework should then be treated as distinct from commercial loss reduction which require a different approach.</p>	<p>8.2 Framework for revenue requirements and costs</p> <p>8.2.1 The following aspects would need to be considered in determining tariffs:</p> <p>(2)</p> <p>The SERC shall undertake independent assessment of baseline data for various parameters for every distribution circle of the licensee.</p> <p>The SERC shall also institute a system of independent scrutiny of financial and technical data submitted by the licensees.</p> <p>As the metering is completed up to appropriate level in the distribution network, it should be possible to segregate technical losses. Accordingly technical loss reduction under MYT framework should then be treated as distinct from commercial loss reduction which requires a different approach.</p>	
	<p>New Provision</p> <p>8.2 Framework for revenue requirements and costs</p> <p>8.2.1 The following aspects would need to be considered in determining tariffs:</p> <p>(7) Section 61 of the Act mandates that the Appropriate Commission, while determining tariff, shall not only ensure safeguarding of consumer's interests but also the</p>	<p>Appropriate Commission to notify fuel price / power purchase adjustment formula for recovery of costs on monthly/quarterly basis</p>

	<p>recovery of the cost of electricity in a reasonable manner. Section 62 of the Act further provides for periodic tariff adjustment during a year to take care of the variation in fuel price, as may be specified.</p> <p>Therefore, the Appropriate Commission shall specify an appropriate price adjustment formula for recovery of the costs, arising on account of the variation in the price of fuel, power purchase etc. on monthly/quarterly basis for recovery of all prudent costs of the generating company and the licensee.</p>	
<p>8.1 Framework for revenue requirements and costs</p> <p>8.2.2. The facility of a regulatory asset has been adopted by some Regulatory Commissions in the past to limit tariff impact in a particular year. This should be done only as exception, and subject to the following guidelines:</p> <p>a. The circumstances should be clearly defined through regulations, and should only include natural causes or force majeure conditions. Under business as usual conditions, the opening balances of uncovered gap must be covered through transition financing arrangement or capital restructuring;</p> <p>b. Carrying cost of Regulatory Asset should be allowed to the utilities;</p> <p>c. Recovery of Regulatory Asset should be time-bound and within a period not exceeding three years at the most and preferably within control period;</p> <p>d. The use of the facility of Regulatory Asset should not be repetitive.</p> <p>e. In cases where regulatory asset is proposed to be adopted, it should be ensured that the return on equity should not become unreasonably low in any year so that the capability of the licensee to borrow is not adversely affected.</p>	<p>8.2 Framework for revenue requirements and costs</p> <p>8.2.2 The facility of a regulatory asset has been adopted by some Regulatory Commissions in the past to limit tariff impact in a particular year. This should be done only as a very rare exception in case of natural calamity or force majeure conditions and subject to the following:</p> <p>a. Under business as usual conditions, no creation of Regulatory Assets shall be allowed;</p> <p>b. Recovery of outstanding Regulatory Assets along with carrying cost of Regulatory Assets should be time bound and within a period not exceeding seven years. The State Commission may specify the trajectory for the same.</p>	<p>Appropriate Commission</p> <ul style="list-style-type: none"> • not to create Regulatory Assets, except in case of natural calamity / force majeure conditions. • To specify trajectory for recovery of outstanding regulatory assets within a period of seven years.

<p>8.3 Tariff design : Linkage of tariffs to cost of service Accordingly, the following principles would be adopted:</p> <p>1. In accordance with the National Electricity Policy, consumers below poverty line who consume below a specified level, say 30 units per month, may receive a special support through cross subsidy. Tariffs for such designated group of consumers will be at least 50% of the average cost of supply. This provision will be re-examined after five years.</p> <p>2. For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the SERC would notify roadmap within six months with a target that latest by the end of year 2010-2011 tariffs are within $\pm 20\%$ of the average cost of supply. The road map would also have intermediate milestones, based on the approach of a gradual reduction in cross subsidy.</p> <p>For example if the average cost of service is Rs 3 per unit, at the end of year 2010-2011 the tariff for the cross subsidised categories excluding those referred to in para 1 above should not be lower than Rs 2.40 per unit and that for any of the crosssubsidising categories should not go beyond Rs 3.60 per unit.</p>	<p>8.3 Tariff design: Linkage of tariffs to cost of service ... Accordingly, the following principles would be adopted</p> <ol style="list-style-type: none"> 1. Consumers below poverty line who consume below a specified level, as prescribed in the National Electricity Policy may receive a special support through cross subsidy. Tariffs for such designated group of consumers will be at least 50% of the average cost of supply. 2. For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the Appropriate Commission would notify a roadmap such that tariffs are brought within $\pm 20\%$ of the average cost of supply. The road map would also have intermediate milestones, based on the approach of a gradual reduction in cross subsidy. 	<p>SERC/JERC to notify roadmap for reduction of cross-subsidy and bringing tariffs within $\pm 20\%$ of the average cost of supply.</p>
<p>8.4 Definition of tariff components and their applicability</p> <p>1. Two-part tariffs featuring separate fixed and variable charges and Time differentiated tariff shall be introduced on priority for large consumers (say, consumers with demand exceeding 1 MW) within one year. This would also help in flattening the peak and implementing various energy conservation measures.</p>	<p>8.4 Definition of tariff components and their applicability</p> <p>(1) Two-part tariffs featuring separate fixed and variable charges and time differentiated tariff shall be introduced on priority for large consumers (say, consumers with demand exceeding 1 MW) within one year and subsequently for all consumers within a period of five</p>	<p>SERC/JERC to adopt two-part tariff within one year for consumers of 1 MW and above and for others within five years.</p>

	<p>years or such period as may be specified. This would also help in flattening the peak and implementing various energy conservation measures.</p>	
<p>8.4 Definition of tariff components and their applicability</p> <p>3. The State Commission may provide incentives to encourage metering and billing based on metered tariffs, particularly for consumer categories that are presently unmetered to a large extent. The metered tariffs and the incentives should be given wide publicity.</p>	<p>8.5 Definition of tariff components and their applicability</p> <p>(3)</p> <p>The Appropriate Commission may provide incentives to encourage metering and billing based on metered tariffs, particularly for consumer categories that are presently unmetered to a large extent. The metered tariffs and the incentives should be given wide publicity. Smart meters have the advantages of remote metering and billing, implementation of peak and off-peak tariff and demand side management through demand response. These would become essential in future for load-generation balancing due to increasing penetration of intermittent type of generation like wind and solar power.</p> <p>Appropriate Commission shall, therefore, mandate smart meters for:</p> <ul style="list-style-type: none"> (a) Consumers with monthly consumption of 500 units and more at the earliest but not later than 31.12.2017; (b) Consumers with monthly consumption above 200 units by 31.12.2019. <p>Further, two way smart meters shall be provided to all prosumers, who also sell back electricity to the grid as and when they require.</p> <p>In order to enable energy audit in the distribution system, all distribution companies shall ensure smart meters in</p>	<p>SERC/JERC to notify mandating installation of smart meters (consumers of more than 500 units before Dec, 2017 and consumers more than 200 units before Dec, 2019)</p> <p>Also to mandate two-way smart meters enabling net-metering of roof-top solar power generation.</p> <p>SERC/JERC to mandate smart meters to enable energy audit and SCADA system for reducing theft.</p>

	<p>their electricity system throughout the chain from transformers at 132kV level right down to distribution transformer level at 11kV and further down to each consumer. Further, in order to reduce theft of power, the distribution companies should have enabling feature like distribution SCADA with distribution management system and energy audit functions. SERCs shall mandate these to be in place within two years.</p>	
<p>8.5 Cross-subsidy surcharge and additional surcharge for open access</p> <p>8.5.1 Accordingly, when open access is allowed the surcharge for the purpose of sections 38,39,40 and sub-section 2 of section 42 would be computed as the difference between (i) the tariff applicable to the relevant category of consumers and (ii) the cost of the distribution licensee to supply electricity to the consumers of the applicable class. In case of a consumer opting for open access, the distribution licensee could be in a position to discontinue purchase of power at the margin in the merit order. Accordingly, the cost of supply to the consumer for this purpose may be computed as the aggregate of (a) the weighted average of power purchase costs (inclusive of fixed and variable charges) of top 5% power at the margin, excluding liquid fuel based generation, in the merit order approved by the SERC adjusted for average loss compensation of the relevant voltage level and (b) the distribution charges determined on the principles as laid down for intra-state transmission charges.</p> <p>Surcharge formula: $S = T - [C (1 + L / 100) + D]$</p>	<p>8.5 Cross-subsidy surcharge and additional surcharge for open access</p> <p>8.5.1 SERCs may calculate the cost of supply of electricity by the distribution licensee to consumers of the applicable class as aggregate of (a) per unit weighted average cost of power purchase including meeting the Renewable Purchase Obligation; (b) transmission and distribution losses applicable to the relevant voltage level and commercial losses allowed by the SERC; (c) transmission, distribution and wheeling charges up to the relevant voltage level; and (d) per unit cost of carrying regulatory assets, if applicable.</p> <p>Surcharge formula: $S = T - [C / (1 - L / 100) + D + R]$</p> <p>Where S is the surcharge T is the tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase Obligation C is the per unit weighted average cost of power purchase</p>	<p>SERC/JERC to notify cross-subsidy surcharge as per the revised formula.</p> <p>Flexibility given to SERC/JERC</p>

<p>Where S is the surcharge T is the Tariff payable by the relevant category of consumers; C is the Weighted average cost of power purchase of top 5% at the margin excluding liquid fuel based generation and renewable power D is the Wheeling charge L is the system Losses for the applicable voltage level, expressed as a percentage The cross-subsidy surcharge should be brought down progressively and, as far as possible, at a linear rate to a maximum of 20% of its opening level by the year 2010-11.</p>	<p>by the Licensee, including meeting the Renewable Purchase Obligation</p> <p>D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level</p> <p>L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level</p> <p>R is the per unit cost of carrying regulatory assets.</p> <p>Above formula may not work for all distribution licensees, particularly for those having power deficit, the State Regulatory Commissions, while keeping the overall objectives of the Electricity Act in view, may review and vary the same taking into consideration the different circumstances prevailing in the area of distribution licensee.</p> <p>Provided that the surcharge shall not exceed 20% of the tariff applicable to the category of the consumers seeking open access.</p> <p>Provided further that the Appropriate Commission, in consultation with the Appropriate Government, shall exempt levy of cross subsidy charge on the Railways, as defined in Indian Railways Act, 1989 being a deemed licensee, on electricity purchased for its own consumption.</p>	
<p>8.5.6</p> <p>In case of outages of generator supplying to a consumer on open access, standby arrangements should be provided by the licensee on the payment of tariff for temporary connection to that consumer category as specified by the Appropriate Commission.</p>	<p>8.5.6</p> <p>In case of outages of generator supplying to a consumer on open access, standby arrangements should be provided by the licensee on the payment of tariff for temporary connection to that consumer category as specified by the Appropriate Commission. Provided that</p>	<p>SERC/ JERC to notify that tariff of temporary connection (in case of outage under open access) restricting to 125% of normal tariff within that category.</p>

	such charges shall not be more than 125 percent of the normal tariff of that category.	
<p>Appendix</p> <p>2. DEFINITION OF PROJECT AFFECTED FAMILIES (PAFs)</p> <p>A Project Affected Family (PAF) shall mean a family whose place of residence or other property, or source of livelihood has been affected by the development of a hydro project and who have been residing in the affected zone for two years preceding the date of declaration of notification under Section-4 of LA Act. The affected family would also include squatters.</p>	<p>Appendix</p> <p>2.DEFINITION OF PROJECT AFFECTED FAMILIES (PAFs)</p> <p>A Project Affected Family (PAF) shall mean a family whose place of residence or other property or source of livelihood has been affected by the development of a hydro project and who have been residing in the affected zone for two years preceding the date of declaration of notification under Section-11 of the LARR Act. The affected family would also include squatters.</p>	
<p>Appendix</p> <p>5. DEFINITION OF SQUATTERS</p> <p>A family occupying government land inthe affected zone without a legal title, at least for 5 years prior to the date of declaration of notification under Section-4 of L.A. Act.</p>	<p>Appendix</p> <p>5.DEFINITION OF SQUATTERS</p> <p>A family occupying Government land in the affected zone without a legal title, at least for 5 years prior to the date of declaration of notification under Section-11 of LARR Act.</p>	

Thank you

Para 5.2

Tariff Policy, 2006	Revised Tariff Policy, 2016
<ul style="list-style-type: none">• PSUs (CPSUs / SPSUs) – Expansion without any capacity limits• PSUs (CPSUs / SPSUs) – New projects thorough bidding after 2011• Private Gencos – Expansion upto 50% of existing capacity	<ul style="list-style-type: none">• PSUs (CPSUs / SPSUs) - Expansion without any time limits• SPSUs – New projects also under section 62• CPSUs – new projects through bidding• Private Gencos – Expansion upto 100% of capacity under section 62