

# MINISTRY OF POWER

(National Tariff Policy, Dated 28<sup>th</sup> January, 2016)

S.NO	DESCRIPTION	SUMMARY
1.	<b>Dated</b>	28th January, 2016
2.	<b>Objectives</b>	<ul style="list-style-type: none"> <li>• Ensure availability of electricity to consumers at reasonable and competitive rates;</li> <li>• Ensure financial viability of the sector and attract investments;</li> <li>• Promote transparency, consistency and predictability in regulatory approaches across jurisdictions and minimise perceptions of regulatory risks;</li> <li>• Promote competition, efficiency in operations and improvement in quality of supply;</li> <li>• Promote generation of electricity from Renewable sources;</li> <li>• Promote Hydroelectric Power generation including Pumped Storage Projects (PSP) to provide adequate peaking reserves, reliable grid operation and integration of variable renewable energy sources;</li> <li>• Evolve a dynamic and robust electricity infrastructure for better consumer services;</li> <li>• Facilitate supply of adequate and uninterrupted power to all categories of consumers;</li> <li>• Ensure creation of adequate capacity including reserves in generation, transmission and distribution in advance, for reliability of supply of electricity to consumers.</li> </ul>
3.	<b>General Approach</b>	<ul style="list-style-type: none"> <li>• 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</li> <li>• The tariff of all new generation and transmission projects of company owned or controlled by the Central Government 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 Central Government on case to case basis</li> </ul>
4.	<b>Equity Norms</b>	<ul style="list-style-type: none"> <li>• 70:30 (For financing of future capital cost of projects).</li> <li>• In case of equity below the normative level, the actual equity would be used for determination of Return on Equity in tariff computations.</li> </ul>
5.	<b>Depreciation</b>	<ul style="list-style-type: none"> <li>• Notified by the Central Commission</li> <li>• 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.</li> <li>• The scheduling and despatch of such conventional and renewable generating plants shall be done separately</li> </ul>
6.	<b>Harnessing Captive Generation</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• Grid connected captive plants could also supply power to non-captive</li> </ul>

		<p>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 including compliance of relevant provisions of rule 3 of the Electricity Rules, 2005.</p>
<p>7.</p>	<p><b>Renewable Sources Of Energy Generation Including Co-Generation From Renewable Energy Sources</b></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 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 for the same level of generation based on year of commissioning of plant).</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>(3) The Central Commission should lay down guidelines for pricing intermittent</p>

		<p>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>(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>(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 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>(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>(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>
8.	<b>Distribution</b>	<ul style="list-style-type: none"> <li>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 regulations in this regard within six months.</li> </ul>

<p>9.</p>	<p><b>Cross-Subsidy Surcharge</b></p>	<ul style="list-style-type: none"> <li>• It should not be so onerous that it eliminates competition</li> <li>• A consumer who is permitted open access will have to make payment to the generator, the transmission licensee whose transmission systems are used, distribution utility for the wheeling charges and, in addition, the cross subsidy surcharge.</li> <li>• 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.</li> </ul> <p><b>Surcharge formula:</b></p> $S = T - [C / (1 - L/100) + D + R]$ <p>Where</p> <p>S is the surcharge</p> <p>T is the tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase Obligation</p> <p>C is the per unit weighted average cost of power purchase 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> <ul style="list-style-type: none"> <li>• Provided that the surcharge shall not exceed 20% of the tariff applicable to the category of the consumers seeking open access</li> </ul>
<p>10.</p>	<p><b>Trading Margin</b></p>	<p>The Appropriate Commission should monitor the trading transactions continuously and ensure that the electricity traders do not indulge in profiteering in situation of power shortages. Fixing of trading margin should be resorted</p>