



उपेन्द्र त्रिपाठी

Upendra Tripathy

No. 11/1/2016-EFM

सचिव

भारत सरकार

नवीन और नवीकरणीय ऊर्जा मंत्रालय

SECRETARY

GOVERNMENT OF INDIA

MINISTRY OF NEW AND RENEWABLE ENERGY

11th February 2016

Dear Chief Secretary,

Subject: Renewable Energy provisions in the revised Tariff Policy- request to develop Action Plan to achieve Renewable Purchase Obligation (RPO) targets upto the year 2022.

.....

Kindly refer to the revised Tariff Policy published in the Gazette of India on 28 January 2016.

Promotion of renewable generation sources has now been added as an objective of the policy. The Policy has provision for 8 percent of solar RPO by the year 2022. It also has provision for Renewable Generation Obligation on new coal/lignite based thermal plants. In addition, the fully depreciated power plants whose PPAs have expired can now bundle renewable power with power from plants. Further, renewable sources have been exempted from inter-state transmission charges (Accessible on the link http://powermin.nic.in/upload/pdf/Tariff_Policy-Resolution_Dated_28012016.pdf).

3. Major provisions pertaining to renewable energy are summarized at Appendix-I.
4. Considering the electricity demand by the year 2021-22 (as estimated by the Central Electricity Authority in the 18th Electric Power Survey), MNRE has estimated State-wise renewable power capacity addition targets for achieving 175 GW by the year 2022 (Annexure-II).
5. The provisions for renewable energy in the revised Tariff Policy are forward looking and would help in accelerating deployment. However, operationalization of the Policy provisions would require concerted efforts, particularly gearing up electricity distribution companies (DISCOMs) for higher levels of Renewable Purchase Obligation (RPO), and also extending support to the State Electricity Regulatory Commissions (SERCs) for notifying RPO trajectory to meet capacity addition targets by the year 2022. This becomes pertinent in view of the fact that at present many of the States are not fulfilling RPOs, which has led to large inventory of unsold Renewable Energy Certificates (REC).

अक्षय ऊर्जा से देश विकसित

ब्लॉक नं. 14, केन्द्रीय कार्यालय परिसर, लोदी रोड, नई दिल्ली-110003

Block No. 14, CGO Complex, Lodi Road, New Delhi - 110 003

Tel. : 011-24361481, 24362772 • Facsimile : 011-24367329 • E-mail : secy-mnre@nic.in

website : www.mnre.gov.in

गांव गांव बिजली, घर घर प्रकाश

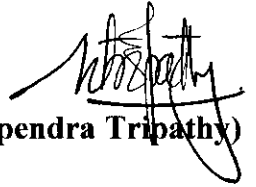
6. In this background, I shall be grateful to you if you could issue suitable instructions for developing an Action Plan for achieving targets in respect of your State for the year 2022. The Action Plan may inter-alia include: a) Year-wise targets for different renewable energy technologies up to the year 2022; b) Year-wise targets for solar roof top; c) Suggesting year-wise RPO trajectory to the SERCs for notification so as to reach 17 % in the of total energy mix by the year 2022 including minimum 8% from solar; d) Identification of technology –wise locations for setting up renewable energy plants, and e) Power evacuation plan.

7. I shall be grateful to have a copy of instructions issued in this regard.

8. I propose to convene a meeting sometime in 2nd week of March 2016 to discuss the State Action Plan 2022, a copy of which may please be sent to me in advance.

With regards,

Yours sincerely,


(Upendra Tripathy)

Revised Tariff Policy 2016

Major Provisions relating to Renewable Energy

Para 4.0: The objectives : (e) Promote generation of electricity from Renewable sources;

Para 5.11 c) Depreciation:

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.

The scheduling and despatch of such conventional and renewable generating plants shall be done separately.

Para 6.4 Renewable sources of energy generation including Co-generation from renewable energy sources:

- (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.

Provided that cogeneration from sources other than renewable sources shall not be excluded from the applicability of RPOs.

- (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.
- (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.
- (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.

(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).

(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.

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.

(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.

(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.

(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.

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.

Provided also that scheduling and despatch of such conventional and renewable generating plants shall be done separately.

- (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.
- (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.

Explanation: "Renewable Energy Service Company" means an energy service company which provides renewable energy to the consumers in the form of electricity.

8.0 Distribution

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.

Para 8.5 Cross-subsidy surcharge and additional surcharge for open access

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.

State-wise break-up of cumulative Renewable Power capacity addition by the year 2022

State/UTs	Solar Power (MW)	Wind (MW)	SHP (MW)	Biomass Power (MW)
Delhi	2762			
Haryana	4142		25	209
Himachal Pradesh	776		1500	
Jammu & Kashmir	1155		150	
Punjab	4772		50	244
Rajasthan	5762	8600		
Uttar Pradesh	10697		25	3499
Uttrakhand	900		700	197
Chandigarh	153			
Northern Region	31120	8600	2450	4149
Goa	358			
Gujarat	8020	8800	25	288
Chhattisgarh	1783		25	
Madhya Pradesh	5675	6200	25	118
Maharashtra	11926	7600	50	2469
D. & N. Haveli	449			
Daman & Diu	199			
Western Region	28410	22600	125	2875
Andhra Pradesh	9834	8100		543
Telangana		2000		
Karnataka	5697	6200	1500	1420
Kerala	1870		100	
Tamil Nadu	8884	11900	75	649
Puducherry	246			
Southern Region	26531	28200	1675	2612
Bihar	2493		25	244
Jharkhand	1995		10	
Orissa	2377			
West Bengal	5336		50	
Sikkim	36		50	
Eastern Region	12237		135	244
Assam	663		25	
Manipur	105			
Meghalaya	161		50	
Nagaland	61		15	
Tripura	105			
Arunachal Pradesh	39		500	
Mizoram	72		25	
North Eastern Region	1205		615	
Andaman & Nicobar Islands	27			

Lakshadweep	4			
Other (New States)		600		120
All India	99533	60000	5000	10000