

# RAJASTHAN ELECTRICITY REGULATORY COMMISSION

## NOTIFICATION

Jaipur, 24<sup>th</sup> February , 2014

No. RERC/Secy/ Reg. - 106 - In exercise of the powers conferred on it under Section 61 and Section 62 read with Sections 86 and 181 of the Electricity Act, 2003 (No. 36 of 2003), and all other powers enabling it in this behalf, the Rajasthan Electricity Regulatory Commission, after previous publication, hereby makes the following Regulations, namely:

### Part I Preliminary

#### 1. Short title, Extent and commencement

- (1) These Regulations shall be called '**Rajasthan Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Renewable Energy Sources - Wind and Solar Energy) Regulations, 2014**'.
- (2) These Regulations shall extend to the whole of the State of Rajasthan. These Regulations shall be applicable for determination of tariff in cases covered under these Regulations from FY 2014-15, i.e., April 1, 2014 and onwards up to FY 2018-19, i.e., March 31, 2019:

Provided that for all purposes including review matters pertaining to the period till FY 2013-14, i.e., up to March 31, 2014, the issues related to determination of tariff shall be governed by RERC (Terms and Conditions for Determination of Tariff) Regulations, 2004 or RERC (Terms and Conditions for Determination of Tariff) Regulations, 2009, including amendments thereto, as the case may be.

- (3) These Regulations shall come into force on 1.4.2014 and unless reviewed earlier or extended by the Commission, shall remain in force for a period of 5 years from the date of commencement.

#### 2. Definitions

- (a) In these Regulations, unless the context otherwise requires:

- (1) "Act" means the Electricity Act, 2003 (36 of 2003), including amendments thereto;
- (2) "Auxiliary Energy Consumption" , means the quantum of energy consumed by auxiliary equipments of the generating station and transformer losses

within the generating station, and shall be expressed as a percentage of the sum of gross energy generated at the generator terminals of all the Units of the generating station;

- (3) "COD" or "Date of Commercial Operation" shall mean the date on which the generating plant is synchronised with the grid system;
- (4) "CERC" means the Central Electricity Regulatory Commission;
- (5) "Commission" means the Rajasthan Electricity Regulatory Commission;
- (6) "Control Period" means a period during which the principles and norms for determination of tariff specified in these Regulations shall remain valid;
- (7) "Existing Generating Station" means a generating station, which has achieved COD prior to the coming into effect of these Regulations;
- (8) "Financial Year" means a period commencing on 1st April of a calendar year and ending on 31st March of the subsequent calendar year;
- (9) "Generation Tariff" means tariff for ex- bus supply of electricity from solar energy and wind energy generating station;
- (10) "Inter-connection Point" means a point at EHV substation of transmission licensee or HV sub-station of distribution licensee, as the case may be, where the electricity produced from the RE generating station is injected into the Rajasthan Grid;
- (11) "MNRE" means the Ministry of New and Renewable Energy of the Government of India;
- (12) "New Generating Station" means a generating station with a COD after coming into effect of these Regulations;
- (13) "Non-firm power" means the power generated from renewable energy sources, the hourly variation of which is dependent upon nature's phenomenon like sun, cloud, wind, etc., that cannot be correctly predicted;
- (14) "Operation and Maintenance expenses" or "O&M expenses" means the expenditure incurred on operation and maintenance of the project, and includes the expenditure on manpower, repairs, spares, consumables, insurance and other overheads;
- (15) "Renewable Energy" means the grid quality electricity generated from Renewable Energy sources;
- (16) "Renewable Energy Power Plants" means the power plants other than the conventional power plants generating grid quality electricity from Renewable Energy sources;
- (17) "Renewable Energy Sources" for the purpose of these Regulations means the non-conventional generating sources of wind and solar, as approved by the MNRE;
- (18) "Solar PV power" means the Solar Photo Voltaic power plant that uses sunlight for direct conversion into electricity through Photo Voltaic technology;

- (19) "Solar Thermal power" means the Solar Thermal power plant that uses sunlight for direct conversion into electricity through Concentrated Solar Power technology based on either line focus or point focus principle;
- (20) "State Load Despatch Centre" or "SLDC" means the centre established by the State Government for the purpose of exercising the powers and discharging the functions under Section 31 of the Act;
- (21) "Tariff Period" means the period for which tariff is to be determined by the Commission on the basis of principles and norms specified under these Regulations;
- (22) "Useful Life" in relation to a Unit of a generating station shall mean the following duration from the date of commercial operation (COD) of such generation plants, namely:
- |  |          |
|--|----------|
| i. Wind energy power plant             | 25 years |
| ii. Solar PV/Solar Thermal power plant | 25 years |
- (23) "Wheeling" means the operation whereby the distribution system and associated facilities of a transmission licensee or distribution licensee, as the case may be, are used by another person for the conveyance of electricity on payment of charges to be determined under Section 62 of the Act;
- (24) "Year" means a financial year.

- (b) Words or expressions occurring in these Regulations and not defined shall bear the same meaning as in the Act.
- (c) Abbreviations used in these Regulations shall have the meaning as stated in Annexure-1.

### **3. Scope of Regulations and extent of application**

- (1) These Regulations shall apply in cases where generic tariff for generating plants based on Wind, Solar PV and Solar Thermal sources of energy, is to be determined by the Commission under Section 62 read with Section 86 of the Act:

Provided that in case of Wind, Solar PV and Solar Thermal power plants, these Regulations shall apply subject to the fulfilment of eligibility criteria specified in regulation 4 of these Regulations.

- (2) Notwithstanding anything contained in these Regulations, the Commission shall adopt the tariff, if such tariff has been determined through a transparent process of bidding in accordance with the guidelines issued by the Central Government, as envisaged under Section 63 of the Act.

#### **4. Eligibility Criteria**

- (1) Wind power plant – using new wind turbine generators.
- (2) Solar PV and Solar Thermal power plant – Based on Technologies approved by MNRE.

### **Part II General Principles**

#### **5. Control Period**

The Control Period under these Regulations shall be of five (5) financial years starting from April 1, 2014:

Provided that the Capital Cost for Wind power plants may be reviewed at the end of third year of the Control Period, if considered appropriate by the Commission:

Provided further that the tariff determined as per these Regulations for Wind and Solar energy plants commissioned during the Control Period, shall continue to be applicable for the entire duration of the Tariff Period as specified in regulation 6 below.

#### **6. Tariff Period**

- (1) The Tariff Period for Wind energy plants shall be twenty-five (25) years.
- (2) The Tariff Period for Solar PV and Solar Thermal plants shall be twenty-five (25) years.

#### **7. Petition and Proceedings for determination of Tariff**

- (1) The Commission may determine the generic tariff on suo-motu basis at the beginning of each year of the Control Period for Wind and Solar energy plants for which principles and norms have been specified under these Regulations.
- (2) The proceedings for determination of tariff shall be in accordance with the RERC (Transaction of Business) Regulations, 2005 as amended from time to time.
- (3) Notwithstanding anything contained in these Regulations,
  - (a) the generic tariff determined for Solar PV plants based on the capital cost and other norms applicable for any year of the Control Period

shall also apply for such plants commissioned during the next year;  
and

- (b) the generic tariff determined for Solar thermal plants based on the capital cost and other norms for any year of the Control Period shall also apply for such plants commissioned during the next two years:

Provided that

- (i) the Power Purchase Agreements in respect of the Solar PV plants and Solar thermal plants are signed on or before last day of the year for which generic tariff is determined, and
- (ii) the entire capacity covered by the Power Purchase Agreements is commissioned on or before 31<sup>st</sup> March of the next year in respect of Solar PV plants and on or before 31<sup>st</sup> March of subsequent two years in respect of Solar thermal plants.

## **8. Tariff Structure**

The tariff for Wind and Solar PV and Solar Thermal energy plants shall be a single-part tariff consisting of the following fixed cost components:

- (a) Operation and Maintenance (O&M) Expenses;
- (b) Depreciation;
- (c) Interest on long-term loans;
- (d) Interest on Working Capital; and
- (e) Return on Equity.

## **9. Tariff Design**

- (1) The generic tariff shall be determined on levelised basis for the Tariff Period.
- (2) For the purpose of levelised tariff computation, the latest available discount factor notified by CERC for the purpose of bid evaluation and payment at the time of issuance of the tariff order for the relevant year shall be considered.
- (3) Levelisation shall be carried out for the Tariff Period of the Wind and Solar energy plants.

## **10. Despatch principles for electricity generated from Wind and Solar Energy**

- (1) All Wind and Solar energy plants shall be treated as 'MUST – RUN' power plants and shall not be subjected to 'merit order despatch' principles.

- (2) The despatch principles for electricity generated from Wind and Solar Energy plants shall be as per the provisions of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010, as amended from time to time, except where specific provision has been made under the Rajasthan Electricity Regulatory Commission (Rajasthan Electricity Grid Code) Regulations, 2008.

### **Part III**

#### **Financial principles for computing costs and return**

#### **11. Capital Cost**

The normative Capital Cost shall be as specified in the subsequent technology specific chapters.

#### **12. Debt-equity ratio**

For the purpose of determination of generic tariff, debt-equity ratio shall be 70:30.

#### **13. Loan and Finance Charges**

##### **(1) Loan Tenure**

For the purpose of determination of generic tariff, loan tenure of 12 years shall be considered.

##### **(2) Interest Rate**

- (a) The loan arrived in the manner indicated in regulation 12 shall be considered as gross normative loan for calculation of interest on loan. The normative loan outstanding as on April 1<sup>st</sup> of every year shall be worked out by deducting the cumulative repayment up to March 31<sup>st</sup> of the previous year from the gross normative loan.
- (b) The normative interest rate shall be considered as average State Bank of India (SBI) Base Rate prevalent during the first six months of the year previous to the relevant year plus three hundred (300) basis points.
- (c) Notwithstanding any moratorium period availed by the generating company or project, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.

#### **14. Depreciation**

- (1) The value base for the purpose of depreciation shall be the total Capital Cost determined by the Commission. The Salvage Value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the total Capital Cost.
- (2) Depreciation per annum shall be based on 'Differential Depreciation Approach' over the loan period beyond the loan tenure over the useful life computed on 'Straight Line Method'. The depreciation rate for the first 12 years of the Tariff Period shall be 5.83% of the Capital Cost per annum and the remaining depreciation shall be spread over the remaining useful life of the project from the 13<sup>th</sup> year onwards.
- (3) Depreciation shall be chargeable from the first year of commercial operation:  
  
Provided that in case of commercial operation of the asset for part of the year, depreciation shall be charged on pro-rata basis.

#### **15. Return on Equity**

- (1) The value base for the equity shall be 30% of the Capital Cost as specified under regulation 12.
- (2) The Return on Equity shall be computed at the base rate of 16% to be grossed up as per sub-regulation (3) of this regulation.
- (3) The rate of return on equity shall be computed by grossing up the base rate with the tax rate equivalent to Minimum Alternate Tax (MAT) for first 10 years from COD and normal tax rate for remaining years of project life.

#### **16. Interest on Working Capital**

- (1) The Working Capital requirement with respect to Wind and Solar energy plants shall be computed in accordance with the following:
  - (a) Operation and Maintenance (O&M) Expenses for one month;
  - (b) Receivables equal to one and a half months of charges for sale of electricity calculated at the normative CUF;
  - (c) Maintenance Spares at 15% of O&M Expenses.

- (2) The normative interest rate shall be considered as average SBI Base Rate prevalent during the first six months of the year previous to the relevant year plus two hundred and fifty (250) basis points.

#### **17. Operation & Maintenance Expenses**

- (1) Normative O&M expenses shall be determined for the Tariff Period based on the normative O&M expenses specified by the Commission subsequently in these Regulations for the first year of the Control Period.
- (2) Normative O&M expenses allowed during first year of the Control Period (i.e., FY 2014-15) under these Regulations shall be escalated at the rate of 5.85% per annum over the Tariff Period.

#### **18. Rebate**

- (1) For payment of bills of the generating company through letter of credit or by cash/cheque within three working days of presentation of bills, a rebate of 2% shall be allowed.
- (2) If payments of bills of the generating company are made through letter of credit or by cash/cheque beyond three working days of presentation of bills but within thirty days of presentation of bills, a rebate of 1% shall be allowed.

#### **19. Late Payment Surcharge**

In case the payment of any bill is delayed beyond a period of 45 days from the date of presentation of bill, a late payment surcharge of 1.25% per month calculated on a daily basis shall be levied by the generating company.

#### **20. Sharing of CDM Benefits**

The proceeds of carbon credit from approved CDM plants during the Control Period shall be shared in the ratio of 25:75 between the distribution licensee and generating company, respectively:

Provided that the share of 25% obtained by the distribution licensee shall be passed on to the consumers. In case the distribution licensee itself is the generating company, then 75% shall be retained by the distribution licensee and balance 25% shall be passed on to the consumers.

## **21. Subsidy or incentive by Central/State Government**

The Commission shall take into consideration any incentive or subsidy or benefit available from Central or State Government, including accelerated or higher depreciation benefit, if availed by the generating company, for the renewable energy power plants while determining the tariff under these Regulations:

Provided that the following principles shall be considered for ascertaining income tax benefit on account of accelerated or higher depreciation, if availed, for the purpose of tariff determination:

- (a) Assessment of benefit shall be based on normative Capital Cost and accelerated or higher depreciation rate as per relevant provisions under Income Tax Act and Corporate Income Tax Rate;
- (b) Capitalization of Wind and Solar PV and Solar Thermal energy plants during second half of fiscal year;
- (c) Per unit benefit shall be derived on levelised basis at discount factor determined as per regulation 9 of these Regulations:

Provided further that in case the generating company is not claiming accelerated or higher depreciation benefit, the Power Purchase Agreement entered into with the generating company shall include an undertaking by the generating company that accelerated or higher depreciation benefit would not be availed for the project:

Provided further that if accelerated or higher depreciation benefit has been claimed despite submission of the undertaking, the distribution licensee shall be entitled to recover amount wrongly claimed along with penal charges @ 1.50 % per month calculated on daily basis:

Provided further that the Generation Based Incentive/Tariff Subsidy, if allowed by the Central/State Government would be governed by the terms and conditions of such scheme.

### **Part IV**

#### **Technology specific parameters for Wind Power Plants**

## **22. Capital Cost**

- (1) The normative Capital Cost for wind energy plants shall be inclusive of all capital works including plant and machinery, civil works, erection and commissioning,

financing and interest during construction, etc., and evacuation infrastructure upto the inter-connection point.

- (2) The normative Capital Cost for wind energy plants for FY 2014-15 shall be Rs. 565 Lakh/MW inclusive of Rs. 25 Lakh/MW towards cost of transmission system including pooling station upto the interconnection point, and this Rs. 25 Lakh/MW also includes Rs. 2 Lakh/MW for grid connectivity charges payable to Transmission Licensee.
- (3) Capital Cost Indexation Mechanism as outlined under regulation 23 shall be applicable for determining tariffs for the plants commissioned for each subsequent year during the Control Period:

Provided that the Commission may review the Capital Cost at the end of third year of the Control Period, i.e., for FY 2017-18, if considered appropriate by the Commission, as outlined in regulation 5.

### **23. Capital Cost Indexation Mechanism**

The following indexation mechanism shall be applicable in case of wind energy plants for adjustments in Capital Cost over the Control Period with the changes in Wholesale Price Index for Steel and Electrical Machinery:

$$\begin{aligned}CC(n) &= P\&M(n) * (1+F_1+F_2+F_3) \\P\&M(n) &= P\&M(0) * (1+d(n)) \\d(n) &= [a * \{(SI(n-1)/SI(0)) - 1\} + b * \{(EI(n-1)/EI(0)) - 1\}] / (a+b)\end{aligned}$$

Where,

CC (n) = Capital Cost for n<sup>th</sup> year

P&M (n) = Plant and Machinery Cost for n<sup>th</sup> year

P&M (0) = Plant and Machinery Cost for the base year

Note: P&M (0) is to be computed by dividing the base Capital Cost (for the first year of the Control Period) by (1+F<sub>1</sub>+F<sub>2</sub>+F<sub>3</sub>)

d (n) = Capital Cost escalation factor for year (n) of Control Period

SI (n-1) = Average WPI Steel Index prevalent for calendar year ending in (n-1) financial year of the Control Period

SI (0) = Average WPI Steel Index prevalent for calendar year ending in financial year (0) at the beginning of the Control Period, i.e., January 2013 to December 2013

EI (n-1) = Average WPI Electrical Machinery Index prevalent for calendar year ending in (n-1) financial year of the Control Period

El(0) = Average WPI Electrical Machinery Index prevalent for calendar year ending in financial year (0) at the beginning of the Control Period, i.e., January 2013 to December 2013

a = Constant to be determined by the Commission from time to time, (In default it is 0.6), for weightage to Steel Index

b = Constant to be determined by Commission from time to time, (In default it is 0.4), for weightage to Electrical Machinery Index

F<sub>1</sub> = Factor for Land and Civil Works (0.08)

F<sub>2</sub> = Factor for Erection and Commissioning (0.07)

F<sub>3</sub> = Factor for IDC and Financing Cost (0.10)

#### **24. Capacity Utilization Factor**

- (1) The Capacity Utilisation Factor (CUF) for wind power plants shall be as follows:

<b>Sr. No.</b>	<b>Districts</b>	<b>CUF</b>
1	Jaisalmer, Jodhpur and Barmer	21%
2	Other districts	20%

- (2) The de-ration in Capacity Utilization Factor shall be 1.25% of CUF from 6<sup>th</sup>, 10<sup>th</sup>, 14<sup>th</sup> and 18<sup>th</sup> year.

#### **25. Operation and Maintenance (O&M) Expenses**

- (1) The normative O&M expenses for the first year of the Control Period, i.e., FY 2014-15 shall be Rs. 7.87 Lakh per MW.
- (2) Normative O&M expenses allowed under these Regulations shall be escalated at the rate of 5.85% per annum over the Tariff Period to compute the levelised tariff.

### **Part - V**

#### **Technology Specific parameters for Solar PV Power Plants**

#### **26. Capital Cost**

- (1) The normative Capital Cost for solar PV plants shall be inclusive of all capital works including plant and machinery, civil works, erection and commissioning, financing and interest during construction, etc., and evacuation infrastructure upto the interconnection point.
- (2) The normative Capital Cost for Solar PV power plants shall be determined by the Commission separately for each year by a separate Order.

## **27. Capacity Utilization Factor**

The Capacity Utilization Factor for Solar PV plants shall be 20% with deration factor of 0.5% of CUF every year after second year.

## **28. Operation and Maintenance (O&M) Expenses**

- (1) The normative O&M expenses for the first year of the Control Period, i.e., FY 2014-15, shall be Rs. 12.76 Lakh/MW.
- (2) Normative O&M expenses allowed under these Regulations shall be escalated at the rate of 5.85% per annum over the Tariff Period to compute the levelised tariff.

### **Part – VI**

#### **Technology Specific parameters for Solar Thermal Power Plants**

## **29. Capital Cost**

- (1) The normative Capital Cost for Solar Thermal power plants shall be inclusive of all capital works including plant and machinery, civil works, erection and commissioning, financing and interest during construction etc., and evacuation infrastructure upto the inter-connection point.
- (2) The normative Capital Cost for Solar Thermal power plants shall be determined by the Commission separately for each year by a separate Order.

## **30. Capacity Utilization Factor**

The Capacity Utilization Factor for Solar Thermal power plants shall be 23% with deration factor of 0.25% of CUF every year after four years.

## **31. Operation and Maintenance (O&M) Expenses**

- (1) The normative O&M expenses for the first year of the Control Period, i.e., FY 2014-15 shall be Rs. 17.24 Lakh/MW.
- (2) Normative O&M expenses allowed under these Regulations shall be escalated at the rate of 5.85% per annum over the Tariff Period to compute the levelised tariff.

## **32. Auxiliary Consumption**

The auxiliary consumption factor shall be 6.5%.

**Part – VII**  
**Others**

**33. Tariff for existing Plants set up as per Government of Rajasthan and Government of India Policies**

- (1) Tariff for electricity supply to the distribution licensee by wind energy plants, for which Power Purchase Agreements (PPA) have been executed under GoR policy of 1999 & 2000 and commissioned before 31.03.2007 shall be as hereunder, being the same as per the said Policy for FY 2013-14:

Sr. No.	Renewable Energy Generation during the year	Tariff in Rs. Per kWh for plants under GoR policy of	
		11.3.99	4.2.2000
1	2014-15	5.7171	5.7135
2	2015-16	5.7171	5.7135
3	2016-17	5.7171	5.7135
4	2017-18	5.7171	5.7135
5	2018-19	5.7171	5.7135

- (2) The tariff for electricity supply to the Distribution Licensee by renewable energy power plants other than those covered by sub regulation (1) and which are commissioned upto 31.3.07(for wind power plant) under GoR policies of 2003 & 2004 (original as well as revised) shall be as hereunder, being the same as was applicable for twenty years as per the said Policy:

Sr. No.	Renewable energy generation during the year	Tariff in (Rs. per kWh) as per policy dated		
		30.4.03	25.10.04	25.10.04
		For wind power plant	For wind power plant	For wind power plant (amended on 24.2.06)
1	2014-15	3.92	3.36	3.79
2	2015-16	3.92	3.36	3.79
3	2016-17	3.92	3.36	3.79
4	2017-18	3.92	3.36	3.79
5	2018-19	3.92	3.36	3.79
6	2019-20	3.92	3.36	3.79
7	2020-21	3.92	3.36	3.79
8	2021-22	3.92	3.36	3.79
9	2022-23	3.92	3.36	3.79
10	2023-24	3.92	3.36	3.79

(3) Solar Power Projects (For projects commissioned under Generation based incentive scheme of Govt of India)

(i) The total tariff, inclusive of generation incentive on solar power payable by Gol to the solar power producer, shall be as under and all conditions of Gol policy shall be applicable for them.

Sl.	Particulars	SPV Technology	CSP Technology
1.	Solar power plants eligible for full GBI as per Gol scheme	Rs.15.78 /kWh	Rs.13.78 /kWh
2.	Solar power plants eligible for reduced GBI as per Gol scheme	Rs.15.18 /kWh	Rs.13.18 /kWh

(ii) The above tariff for solar power project is for ten years only. The tariff after 10 years shall be determined by a separate Order.

#### 34. Tariff for existing Plants set up as per the Commission's order

For wind energy plants commissioned after 31.03.2007 and upto 31.03.2009 within Rajasthan, the Tariff Rates shall be as under:

##### Schedule A: Tariff for wind plants

Year of operation	Jaisalmer, Barmer, Jodhpur Distts.		Other Distts.	
	Voltage		Voltage	
Voltage	EHV	33/11 kV	EHV	33/11kV
	Rs./kWh			
1	3.59	3.48	3.67	3.56
2	3.61	3.5	3.71	3.6
3	3.63	3.52	3.75	3.64
4	3.65	3.54	3.79	3.68
5	3.67	3.56	3.83	3.72
6	3.69	3.58	3.87	3.76
7	3.71	3.6	3.91	3.8
8	3.73	3.62	3.95	3.84
9	3.75	3.64	3.99	3.88
10	3.77	3.66	4.03	3.92
11	3.79	3.68	4.04	3.93
12	3.81	3.7	4.05	3.94
13	3.82	3.71	4.06	3.95
14	3.83	3.72	4.07	3.96

Year of operation	Jaisalmer, Barmer, Jodhpur Distts.		Other Distts.	
	Voltage		Voltage	
Voltage	EHV	33/11 kV	EHV	33/11kV
	Rs./kWh			
15	3.84	3.73	4.08	3.97
16	3.85	3.74	4.09	3.98
17	3.86	3.75	4.1	3.99
18	3.87	3.76	4.11	4
19	3.88	3.77	4.12	4.01
20	3.89	3.78	4.13	4.02
<b>Levellised</b>	<b>3.71</b>	<b>3.6</b>	<b>3.89</b>	<b>3.78</b>

Note: The tariff under column EHV is for injection of power up to 50 km line length. If the line length is more than 50 km, additional 2 paise per kWh would be allowed.

### 35. Tariff for Plants under the REC mechanism

In case a Wind or Solar generator desires to switch over from the REC mechanism to preferential tariff mechanism under regulation 12(2) of RERC (Renewable Energy Certificate and Renewable Purchase Obligation Compliance Framework) Regulations, 2010, and if the Discom agrees to purchase considering the scope to accommodate the same in RPO target, the levelised tariff determined in accordance with these Regulations for sale to Distribution Licensee in respect of the year in which the plant was commissioned shall be applicable. However, in case purchase by the Discom in the same year in which such plant(s) was commissioned has been at a rate lower than the levelised tariff determined for that year, the lowest rate of such purchase would be applicable. The same principle would be applicable to the plants commissioned during the previous MYT Control Period ending on 31.03.2014.

### 36. Grid Connectivity

- (1) Grid connectivity charges of Rs. 2 Lakh per MW shall be payable by the Wind and Solar power plants to Transmission Licensee or Distribution Licensee, as the case may be.
- (2) The Non-firm power injection into the State grid shall be limited to the capacity indicated below.

Provided that for short line length, the envisaged capacity of the line may be considered about 1.2 to 2.0 times the Surge Impedance Loading (SIL) of the line.

S. no.		Total Power fed through a feeder (in MW)			
		11 kV	33 kV	132 kV	220 kV
1	ACSR Panther conductor	3 MW	12 MW	50 MW	-
2	ACSR Dog conductor	2 MW	6 MW	-	-
3	ACSR Raccoon conductor	1 MW	2 MW	-	-
4	ACSR Zebra	-	-	-	Above 50 MW & up to 150 MW
5	As per SIL for short line	-	-	90 MW	180 MW

### 37. Metering

- (1) In respect of sale of energy to the Distribution Licensee, the metering for the purpose of energy accounting shall be as under:
- For Solar PV and solar thermal plants, the metering shall be at the line isolator on the outgoing feeder on HV side of the generator transformer.
  - For wind power plants supplying power through pooling arrangement, the metering shall be at the grid substation of the licensee:

Provided that for the said metering at the grid substation of licensee, the following losses shall be considered for the plants commissioned during the control period:

- Losses of 1% for metering upto 33 kV.
- Losses of 2.5 % for metering at 132 kV and above.

- (2) In case of open access for both wind and solar energy and in case of sale of electricity under REC mechanism, the metering would be at EHV substation of transmission licensee or HV station of distribution licensee as the case may be, and the provision of losses, as specified above, shall not be applicable.

### 38. Other Charges

#### (1) kVArh charges

Net kVArh drawal by Wind and Solar power plants from the Grid shall be billed at 12 paise / kVArh w.e.f 01.04.2014 escalated annually at 0.50 paise / kVArh, unless otherwise revised by the Commission by Order.

(2) **Import of power by Generating Stations**

Energy drawn by the generating station from the grid during shutdown and outages, and for restarting, shall be set off against the energy sold to the Distribution Licensee within the State on a quarterly basis:

Provided that in case drawal by the generating station is more than its injection in a month, the excess drawal during the month shall be carried forward to the subsequent month and so on. Such cumulative excess drawal, if any, shall be settled on quarterly basis at energy charges of tariff applicable to a Large Industrial consumer. The first quarter would begin from April 1 of the relevant year:

Provided further that where sale to Distribution Licensee is not being effected or where sale to distribution licensee is under REC mechanism, such drawal from the grid shall be billed at tariff for temporary supply applicable to HT Industrial consumer (tariff category HT-5) on daily basis.

(3) **Transmission & wheeling charges**

In case of third party sale or for captive use both within the State or outside the State, the transmission charges and wheeling charges shall be recovered in cash and transmission losses and wheeling losses shall be recovered in kind as under:

(a) For use of transmission network, transmission charges and losses as determined by the Commission in respect of open access transactions would be applicable.

(b) For use of distribution licensee's network, the wheeling charges and losses as determined by the Commission in respect of open access transactions at respective voltage levels at which electricity is supplied, would be applicable.

(c) For use of both EHV and distribution network, both transmission and wheeling charges as well as losses, as applicable, shall be payable:

Provided that in case of Power Purchase Agreements executed and plants commissioned upto 31.03.2007 under the State Government Policies specified in regulation 33, the charges as per Policy shall be applicable unless RE power plant opts otherwise.

(4) **SLDC Fees and Charges**

SLDC fees and charges shall be as specified in RERC (Levy of fee and charges by the State Load Despatch Centre) Regulations, 2004 as amended from time to time.

(5) **Surcharge**

The Cross-subsidy surcharge as determined by the Commission from time to time shall not be applicable in case of open access transactions based on Wind energy, Solar PV and Solar thermal power stations.

**39. Banking**

(1) Energy shall be allowed to be banked at consumption end for only captive consumption within the State.

(2) Period of banking:

The banking shall be on monthly basis.

(3) Energy Accounting:

(a) RE Power Generator/Developer shall intimate to SLDC and to the concerned Distribution Licensee on first day of every month, out of available energy for that particular month, the quantum of energy it wishes to bank for captive consumption within the State:

Provided that where no such intimation is received on or before first day of the month, the intimation last received would become applicable for the month.

(b) The banked energy in a month shall not exceed the quantum of energy injected in the grid in the month. In case the energy injected in the month is lower than indicated banked energy, the banked energy would be deemed to get restricted upto the energy injected.

(c) The RE Power Generator/Developer would be entitled to get payment @60% of energy charges applicable for large industrial power tariff, excluding fuel surcharge, if any, in respect of 10% of unutilized banked energy after the end of month of banking. Unutilized banked energy, in excess of 10% shall lapse.

(4) The Distribution Licensee shall make the payment, if any, on or before the last working day of the month, next to the relevant month of banking, beyond which, the Late Payment Surcharge (LPS) at the rate, as specified in these Regulations, would become applicable.

- (5) Banking charges at the rate of 2% of banked energy in each month would be payable in kind.

**Part - VIII**  
**Miscellaneous**

**40. Deviation from provisions of these Regulations**

The Commission may deviate from any of the provisions contained in these Regulations on a suo-motu basis having regard to the circumstances of the case:

Provided that the reasons for such deviation shall be recorded in writing.

**41. Power to amend**

The Commission may, at any time, vary, alter, modify or amend any provisions of these Regulations.

**42. Power to remove difficulties**

If any difficulty arises in giving effect to the provisions of these Regulations, the Commission may either suo-motu or on a petition, by general or specific order, make such provisions not inconsistent with the provisions of the Act as may appear to be necessary for removing the difficulty.

By Order of the Commission,

Secretary

**Abbreviations**

CDM	:	Clean Development Mechanism
COD	:	Commercial Operation Date
CUF	:	Capacity Utilisation Factor
FY	:	Financial Year
GOI	:	Government of India
IEGC	:	Indian Electricity Grid Code
kV	:	Kilo Volt
kWh	:	Kilo Watt Hour
MNRE	:	Ministry of New and Renewable Energy
MW	:	Mega Watt
NLDC	:	National Load Despatch Centre
O&M	:	Operation and Maintenance
PPA	:	Power Purchase Agreement
RE	:	Renewable Energy
RVPN	:	Rajasthan Rajya Vidyut Prasaran Nigam Limited
R&M	:	Repair and Maintenance
SLDC	:	State Load Despatch Centre
WPI	:	Wholesale Price Index