

JERC Order
In the matter of
Determination of Generic Levellised Solar PV Generation Tariff
For FY 2016-17 and 2017-18
For State of Goa & Union Territories



August 2016

संयुक्त विद्युत विनियामक आयोग (गोवा राज्य और संघ शासित प्रदेशों के लिए)

JOINT ELECTRICITY REGULATORY COMMISSION

For the State of Goa and Union Territories,

2 तल, वाणिज्य निकुंज, एचएसआईआईडीसी कार्यालय परिसर, उद्योग विहार फेज-V, गुडगांव - 122016 हरियाणा

2nd Floor, HSIIDC Office Complex, Vanijya Nikunj,
Udyog Vihar, Phase-V, Gurgaon-122 016 (Haryana)

दूरभाष ,2875302-0124 फैक्स 0124-2342853

Phone: 0124-2342852 Fax: 0124-2342853

Website: www.jercuts.gov.in

Email: secy-jerc@nic.in

Before
The Joint Electricity Regulatory Commission
For
The State of Goa & union Territories

Quorum
Shri SK Chaturvedi, Chairperson
Smt. Neerja Mathur, Member

Suo-motu Petition No.: 211/Solar Tariff /2016
Date of Order : 05.08.2016

In the Matter of:

Determination of generic levellised generation tariff for the FY 2016-17 under Regulation 52 of the Joint Electricity Regulatory Commission for the State of Goa & Union Territories, (Solar Power- Grid Connected Ground Mounted and Solar roof Top and Metering Regulations), JERC -19/2015.

1. Joint Electricity Regulatory Commission for the State of Goa & Union Territories (hereinafter referred to as JERC or the Commission) notified the Joint Electricity Regulatory Commission for the State of Goa & Union Territories, (Solar Power- Grid Connected Ground Mounted and Solar roof Top and Metering Regulations), JERC -19/2015 (hereinafter referred to as “the Solar Regulations 2015” or the “Principal Regulations”), which provide for terms and conditions and the procedure for determination of tariff of the Grid Connected Ground Mounted and Solar roof Top and Metering.
2. The Regulations enjoin upon the Commission to determine the generic tariff on the basis of the suo-motu Petition, for the Solar PV for which norms have been provided in the above referred Regulations – JERC 19-2015. Generic Tariff is different from project specific tariff for which a project developer has to file a Petition before the Commission as per the format provided in the JERC’s Regulations 1/2009 “Conduct of Business Regulations” and amendments thereof. Pertinently, project specific tariff has been envisaged for the projects that have variations in parameters than stipulated in Regulations, the Commission shall determine the project specific tariff for such technologies on a case to case basis.

3. Regulation 52 of the JERC Regulation -19/2015, provides that *“the Commission shall determine the generic tariff for each year as under:*

Quote “Applicable Tariff

The Tariff applicable for each project at the time of signing the PPA shall be as approved by the Commission for each year.

- a. Provided that the Power Purchase Agreement (PPA) is signed between the Solar Power Project Developer and the Distribution licensee in the Specific Year of the Control Period:*
- b. Provided that the Solar Project is commissioned within the time indicated in the these regulations;*
- c. Provided that the Solar Project envisaged is not commissioned in the time schedule specified above, the Tariff applicable for the project will be lesser of the two tariffs i.e. of the previous year when PPA was signed and the next year tariff during which the Project gets commissioned.”*

Unquote

In order to determine the generic tariff for Solar PV projects to be commissioned during FY 2016-17 and FY 2017-18 and in due discharge of the mandate under Regulation 52 of JERC Regulations-19/ 2015 the Commission brought out the proposal in the matter of determination of generic tariff for Solar PV projects for the FY 2016-17 and FY 2017-18 Commission vide a link on its web site <http://jercuts.gov.in/writereaddata/UploadFile/solartariff161718.pdf>

uploaded the proposed tariffs for the above years for Solar PV projects of various ratings for the territories under its jurisdiction on suo-motu basis.

4. The Commission received comments from various stake holders. Based on these inputs received on various parameters in respect of higher Capital Cost for small projects for Solar Roof Tops and lower CUF achieved for its Territories, the Commission approved the Generic Solar PV Tariff as under:

Approved generic levellised tariff for Grid Connected Roof Top and Ground Mounted Solar PV Projects for the FY 2016-17 and FY 2017-18

Determination of Generic Levellised Generation Tariff for Solar PV for FY 2016-17 and FY 2017-18

Kw	Capital Cost in Rs '000 /kW(Territory Wise)				Subsidy	FY 2016-17				FY 2017-18			
	FY 2016-17		FY 2017-18			Non Island Territory		Island Territory		Non Island		Island Territory	
	Non Island	Island	Non Island	Island		W/out AD	With AD	W/out AD	With AD	W/out AD	With AD	W/out AD	With AD
	d												
1-10	70	88	64.4	80.96	0%	9.19	8.71	11.15	10.55	8.57	8.13	10.38	9.83
					30%	6.89	6.55	Not Applicable		6.46	6.15	Not Applicable	
					70%	Not Applicable		4.42	4.24	Not Applicable		4.19	2.02
11-100	69	86	63.48	79.12	0%	9.08	8.6	11.04	10.45	8.47	8.04	10.18	9.64
					30%	6.81	6.48	Not Applicable		6.39	6.09	Not Applicable	
					70%	Not Applicable		4.39	4.21	Not Applicable		4.16	3.99
101-500	67	85	61.64	78.2	0%	8.86	8.40	10.83	10.24	8.27	7.85	10.08	9.55
					30%	6.66	6.34	Not Applicable		6.25	5.95	Not Applicable	
					70%	Not Applicable		4.32	4.15	Not Applicable		4.10	3.94
>501	65.7	83.49	60.44	76.81	0%	8.72	8.26	10.66	10.09	8.14	7.73	9.93	9.40
					30%	6.56	6.24	Not Applicable		6.16	5.87	Not Applicable	
					70%	Not Applicable		4.27	4.10	Not Applicable		4.05	3.89

- This Order does not take into account the subsidy / financial assistance quantum, and accelerated depreciation benefits, as may be available from the Central / State Government for Solar PV Projects other than specified above. Accordingly, the Commission directs the developer availing any other subsidy or any other benefit shall inform the distribution licensee accordingly.
- The determination and basis of approval of generic levellised tariff for generation for Grid Connected Solar PV for FY 2016-17 and FY 2017-18 has been explained as sample calculations for one such set of parameters as per Annexure 1 attached.

7. Implementation of Order

In exercise of the powers vested in it under the Electricity Act -2003, the Commission hereby passes this Order on the date indicated herein. The tariff approved by the Commission herewith, shall be applicable for the Grid Connected Solar PV projects commissioned during FY 2016-17 and FY 2017-18 respectively with immediate effect and shall remain in force till revised/ amended or modified by an Order of the Commission.

(Neerja Mathur)
MEMBER

(S. K Chaturvedi)
CHAIRPERSON

सत्यापित प्रतिलिपि

कीर्ति तिवारी

सचिव

संयुक्त विद्युत विनियामक आयोग
(गोवा और केंद्र शासित प्रदेशों के लिए)

Annexure 1 to Grid Connected Solar PV Tariff Order

Calculations : Generic Solar Tariff valid up to 31.03.2017/& 2018 or later till revised as per JERC Solar Regulations

Parameter Values for Generic tariff for Procurement of Power from Grid-connected

Parameters

Plant Size	MW	1	Working Capital:		
CUF (for UT and Goa)	%	16.3%	O&M	Months	1
Useful Life of Project	Years	25	Spares	%	15%
MNRE Bench Mark Cost / MW	Rs Lacs	750	Receivables	Months	2
MNRE Subsidy	%	0%	Interest on Wcap	%	13.21%
Capital Cost / MW without Subsidy	Rs. Lacs/ MW	604.44	O&M Expenses (JERC)	Lakh	13.00
Project Cost with Subsidy if any	Lakh/MW	604.44	Escalation for O&M	%	5.72%
Tariff Period	Years	25	Depreciation - 1st 12 Years	%	5.83%
Debt Portion	%	70%	Depreciation from 13th Year	%	1.54%
Equity Portion	%	30%	Income Tax Rate	%	34.61%
Debt	Lakh	423.11	Income Tax Holiday	Yrs.	10.00
Equity	Lakh	181.33	MAT Rate	%	20.96%
Loan Repayment Period	Years	12	80 IA Benefits	Yes/No	Yes
Interest Rate - Loan	%	12.76%	WACC	%	10.64%
ROE - 1st 10 Years (pretax)	%	20%	Deration (every year after 2nd year)	%	0.00%
ROE from 11th Year (pretax)	%	24%	Deration (1st to 2nd year)	%	0.00%
Wtd.avg ROE	%	22.4%	Module Performance (Yr 1)	%	100%
			Aux. Power Consumption	%	100%

Coloured cell means input required

Coloured cell means output automatically calculated

