



## DELHI ELECTRICITY REGULATORY COMMISSION

Viniyamak Bhawan, 'C' Block, Shivalik, Malviya Nagar, New Delhi- 110017

No. F.11(1131)/DERC/2014-15

**Petition no. 35/2014**

**In the matter of: Petition for approval of Tariff for Generation of Electricity from Solar PV Project at the Shakarpur Grid (30 KWp)**

**And**

**Petition no. 36/2014**

**Petition for approval of Tariff for Generation of Electricity from Solar PV Project at the Transformer Workshop, PPG Industrial Area Grid (50 KWp)**

**And**

**Petition no. 37/2014**

**Petition for approval of Tariff for Generation of Electricity from Solar PV Project at the Yamuna Vihar Grid (40 KWp)**

**And**

**Petition no. 38/2014**

**Petition for approval of Tariff for Generation of Electricity from Solar PV Project at the Seelampur Grid (45 KWp)**

**And**

**Petition no. 39/2014**

**Petition for approval of Tariff for Generation of Electricity from Solar PV Project at the Dwarkapuri Grid (50 KWp)**

**And**

**Petition no. 40/2014**

**Petition for approval of Tariff for Generation of Electricity from Solar PV Project at the DSIIDC Jhilmil Grid (35 KWp)**

**And**

**Petition no. 41/2014**

**Petition for approval of Tariff for Generation of Electricity from Solar PV Project at the Vivek Vihar Grid (35 KWp)**

**And**

**Petition no. 42/2014**

**Petition for approval of Tariff for Generation of Electricity from Solar PV Project at the Tahirpur Grid 50 (KWp)**

BSES Yamuna Power Ltd.

Through its: **CEO**

Shakti Kiran Building,

Karkardooma

New Delhi – 110092.

.....Petitioner

**Coram: Sh. B.P. Singh, Member**

**Appearance:**

1. Mr. Shekhar Saklani, BYPL
2. Mr. Gagan Swain, Head Regulatory BYPL
3. Mr. Sameer Singh, BYPL
4. Mr. Abhishek Srivastava, BYPL
5. Mr. Brajesh Kumar, Manager, BYPL

**ORDER**

(Date of Hearing: 30.01.2018)

(Date of Order: 20.02.2018)

1. M/s BSES Yamuna Power Ltd. has filed following petitions for determination of generation Tariff in respect of its Plants shown against each:

<b>S. No.</b>	<b>Petition No.</b>	<b>Location</b>	<b>Capacity (kWp)</b>
1.	35/2014	Shakarpur Grid	30
2.	36/2014	Transformer Workshop, PPG Industrial Area Grid	50
3.	37/2014	Yamuna Vihar Grid	40
4.	38/2014	Seelampur Grid	45
5.	39/2014	Dwarkapuri Grid	50
6.	40/2014	DSIIDC Jhilmil Grid	35
7.	41/2014	Vivek Vihar Grid	35
8.	42/2014	Tahirpur Grid	50

2. Vide order dated 03.09.2014, the petitioner was directed to provide following information and documents within two weeks which has since been furnished:

- a) Auditor's certificate clearly stating the total capital expenditure incurred in the project and total subsidy disbursed by the Ministry of New and Renewable Energy (MNRE), Actual equity infused in the project;
- b) Audited statement of accounts submitted to MNRE;
- c) Detail of funding for the project;
- d) Details of tendering process (technical & financial); and
- e) Final MNRE disbursement Letter.

3. The Petitioner has submitted that the projects are entitled for CFA (Central Finance Assistance) from the MNRE and subsidy will be released subject to the terms and conditions. MNRE has released part of the subsidy as indicated below :-

<b>Sl. No.</b>	<b>Break up of funding</b>	<b>Amount in (Rs. Lakh)</b>
	Subsidy granted by MNRE	170.85
(i)	Released vide letter dated 18.02.2013	42.71
(ii)	Released vide letter dated 17.04.2017	71.72
(iii)	Balance yet to be released	56.42

4. It is further submitted by the Petitioner that MNRE has considered aforesaid 8 Projects as a single project of 335 kW having solar installation at various locations and accordingly has sanctioned subsidy of Rs. 170.85 Lakh in respect of all the eight installations.
5. As subsidy for individual solar installation cannot be ascertained, these 8 projects are considered as one project. Accordingly, Tariff for aforesaid plants has been computed treating them as parts of a single project of total capacity 335 kW.
6. The Tariff has been arrived in accordance with the DERC (Terms & Condition for determination of tariff for grid connected solar photo-voltaic project) Regulations, 2013 as per following analysis:
  - (a) **Capital Cost:** - As per the Auditor's Certificate submitted by the petitioner, the total capital cost incurred on the project is Rs. 359.72 Lakh. However, the normative Capital Cost ceiling limit as per Regulation 13 of DERC (Terms & Conditions for determination of Tariff for Grid – connected Solar PV projects) Regulations, 2013 is Rs. 1000 lakh/ MW. Accordingly, the Capital Cost has been capped at Rs. 335 Lakh for computation of tariff.
  - (b) **Subsidy:** The subsidy of Rs. 170.85 lakh has been considered as per Auditor's certificate provided by the petitioner and details as provided by the Energy Efficiency and Renewable Energy Management Center (EE&REMC), Department of Power, GoNCTD vide email dated 23.01.2017. As per Regulations 27 of DERC (Terms & Conditions for determination of Tariff for Grid – connected Solar PV projects) Regulations, 2013, the subsidy of Rs. 170.85 lakh has been deducted from the Capital Cost.
  - (c) **Debt Equity Ratio:** As per Regulation 14 of DERC (Terms & Conditions for determination of Tariff for Grid – connected Solar PV projects) Regulations, 2013, the debt equity ratio has been considered as 70:30. Therefore, the equity considered for computation of Tariff at the benchmarked Capital Cost of 335 kWp is Rs. 49.25 lakh
  - (d) **Return on Equity:** Return on Equity has been considered @ 20% pre-tax per annum for the first 10 years, and 24% pre-tax per annum from the 11th year onwards till 25th year as per the norms specified in Regulation 17 of DERC (Terms & Conditions for determination of Tariff for Grid – connected Solar PV projects) Regulations, 2013.

- (e) **Rate of interest on loan Capital:** The Petitioner has considered rate of interest of 12.98% on loan capital as per Regulation 15 of DERC (Terms & Conditions for determination of Tariff for Grid – connected Solar PV projects) Regulations, 2013. This 12.98% is the ceiling limit for interest on loan for solar projects. However, in the absence of any specific loan details, the actual interest on loan capital of the distribution licensee has been considered while computing the tariff of solar power. Accordingly, the average rate of Interest of 9.89% for FY 2013-14 as approved by the Commission vide Tariff Order dated 29.09.2015 for FY 2013-14 in respect of Petitioner has been considered for computation of tariff.
- (f) **Depreciation:** The depreciation has been considered upto 90% of the project cost as per Regulation 16 of DERC (Terms & Conditions for determination of Tariff for Grid – connected Solar PV projects) Regulations, 2013. The depreciation rate for the first 12 years of the Tariff Period is 5.83% per annum and from 13th year onwards, the remaining depreciation is spread over the remaining useful life of the project.
- (g) **Operation and Maintenance expenses:** The Operation and Maintenance expenses have been considered in line with the Regulation 19 of DERC (Terms & Conditions for determination of Tariff for Grid – connected Solar PV projects) Regulations, 2013. The normative O&M expense of Rs 11 Lakh/ MW for the 1st year of operation and escalated at the rate of 5.72% per annum over the tariff period has been considered.
- (h) **Working Capital:** Working capital is computed as per the norms specified under Regulation 18 of DERC (Terms & Conditions for determination of Tariff for Grid – connected Solar PV projects) Regulations, 2013.
- (i) **Interest on Working Capital:** The Petitioner has considered rate of interest on working capital of 13.49% as per Regulation 18 of DERC (Terms & Conditions for determination of Tariff for Grid – connected Solar PV projects) Regulations, 2013. This 13.49% is the ceiling limit for interest on loan for solar projects. However, in the absence of any specific loan details, the actual interest on loan capital of the distribution licensee has been considered while computing the tariff of solar power. Accordingly, the average rate of Interest of 9.89% for FY 2013-14 as approved by the Commission vide Tariff Order dated

29.09.2015 for FY 2013-14 in respect of Petitioner has been considered for computation of tariff.

(j) **Capacity Utilization Factor (CUF):** The capacity utilization factor of 19% as per the norms specified in Regulation 22 of DERC (Terms & Conditions for determination of Tariff for Grid – connected Solar PV projects) Regulations, 2013 has been considered.

(K) **Commercial Operation Date (COD):** The COD of the projects submitted by the Petitioner as indicated below have been verified in consultation with the SLDC:

<b>S.No.</b>	<b>Location</b>	<b>C.O.D.</b>
1.	Shakarpur Grid	15.05.13
2.	Transformer Workshop, PPG Industrial Area Grid	13.05.13
3.	Yamuna Vihar Grid	21.05.13
4.	Seelampur Grid	13.05.13
5.	Dwarkapuri Grid	13.05.13
6.	DSIIDC Jhilmil Grid	21.05.13
7.	Vivek Vihar Grid	21.05.13
8.	Tahirpur Grid	21.05.13

7. Pending determination of Tariff of these plants, a provisional tariff of Rs. 5.50/ unit was being allowed in the respective Tariff Orders from time to time. However, after considering above mentioned parameters, a levelised tariff of Rs. 5.36/ unit is determined in respect of aforesaid plants of the Petitioner.

8. Ordered accordingly and the Petitions are disposed off.

**Sd/-**  
**(B.P. Singh)**  
**Member**