

Delhi Electricity Regulatory Commission

Viniyamak Bhawan, 'C' Block, Shivalik, Malviya Nagar, New Delhi –110 017

No. F.11 (659)/DERC/2010-11/

Petition No. 07/2011

In Re: Adoption of generic tariff for generation of electricity from tail end grid interactive 43 KWP Solar PV Project at A-7, Narela Grid, Delhi.

Tata Power Delhi Distribution Company Ltd.
Through its: Sr. General Manager
33kV Sub Station Building
Hudson lane
Delhi 110 009

Coram:

Sh. P.D. Sudhakar, Chairman & Sh. J.P. Singh, Member

ORDER

(Date of Order: 02.06.2014)

1. The Petitioner, Tata Power Delhi Distribution Ltd. (TPDDL) has filed a petition before the Commission for adoption of generic tariff for generation of electricity from tail end grid interactive 43 KWP Solar PV Project at A-7, Narela Grid, Delhi.
2. As information about the actual capital cost and actual subsidy received was not furnished by the Petitioner, the Commission vide its order dated 14.11.2013, determined the provisional levelised tariff for the project at Rs. 4.94 per unit for 25 years from the date of commissioning, by allowing the capital cost of Rs. 47.89 lakh for the project on the basis of normative capital cost of Rs. 11 crores per MW.
3. In order to finalise the tariff, the Petitioner was directed to furnish the requisite information along with the audited accounts of the company indicating Solar Capital assets separately from distribution capital assets and breakup of capital assets deployed in the different business divisions of the company.

4. The Petitioner has since submitted the audited financial statement as on 31st March, 2012, for total capital assets of TPDDL indicating solar capital assets separately and has also furnished the letters dated 29.07.2010 and 29.06.2011 of Ministry of New Renewable Energy (MNRE). As per letter dated 29.07.2010, the MNRE has revised the actual capital cost of the project to Rs. 57.56 lakh. The letter dated 29.06.2011 of MNRE is for final disbursement of subsidy and contains information about the actual subsidy received, utilization certificate of the auditor, Project Completion Report, Consolidated Statement of Expenditure and Audited Financial Statement.
5. The Commission after taking into consideration the actual capital cost of Rs. 57.56 lakh and actual subsidy Rs. 29.07 lakh for the project, as per letters of the Ministry of New Renewable Energy and on the basis of the assumptions and norms considered in order dated 14.11.2013, has finalized the levelized tariff for 43 kWp Solar PV Project at TPDDL A-7 Narela Grid, Delhi at Rs 6.77/- per unit for 25 years from the date of commissioning. The Capacity Utilization Factor (CUF) shall be reviewed after 5 years based on the performance vis-à-vis the guaranteed output along with contractual remedies enforced by the Petitioner. The detailed calculation sheet is attached as Annexure –I.
6. The Petition stands disposed of accordingly.

Sd/-

(J. P. Singh)
MEMBER

Sd/-

(P. D. Sudhakar)
CHAIRMAN

Annexure -I

25 Year Levelized Tariff 43 KW- Grid Interactive Solar Photovoltaic Plant-A-7 Narela

| Assumptions | | | |
|--|--------|---------------------------|------------|
| Rating of the Plant | 0.0430 | MW | |
| Project Cost | 0.2849 | Rs. Crores | |
| Debt | 0.70 | 0.1994 | INR Crores |
| Equity | 0.30 | 0.0855 | INR Crores |
| Rate of Interest on loan | 9.29% | SBI PLR+150 basis Points | |
| Return on Equity | 19.00% | 24.00% | |
| Tax Rate | 10.00 | Years | |
| Loan Repayment Period | 7.00% | 1.33% | |
| Depreciation | 0.0951 | INR Crores/MW | |
| O&M Cost | 9.50% | SBI PLR +100 basis Points | |
| Interest on Working Capital | 13.10% | WACC | |
| Rate of Return considered for Levelised Escalation (O&M) | 0.0572 | 1.06 | |
| PLF | 19.00% | | |

Project cost
0.5756

Subsidy
0.2907

| S No. | Years | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|-------|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | Interest on Loan Capital | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2 | Depreciation | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| 3 | Cumulative Depreciation | 0.02 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| 4 | Cumulative Repayment | 0.02 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| 5 | Loan o/s at the end | 0.18 | 0.16 | 0.14 | 0.12 | 0.10 | 0.08 | 0.06 | 0.04 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| 6 | Return on Equity | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| 7 | O&M Expenses | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8 | Interest on Working Capital | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9 | Annual Fixed Cost | 0.06 | 0.06 | 0.06 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.04 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 10 | Units Generated in the year (MUs) | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 |
| 11 | Unit Cost (Rs / Unit) | 8.23 | 8.00 | 7.77 | 7.55 | 7.33 | 7.10 | 6.89 | 6.67 | 6.46 | 6.25 | 4.49 | 4.55 | 4.61 | 4.68 | 4.75 | 4.82 | 4.90 | 4.98 | 5.07 | 5.16 | 5.26 | 5.36 | 5.47 | 5.59 | 5.71 |
| 12 | Discounting Factor | 1.00 | 0.88 | 0.78 | 0.69 | 0.61 | 0.54 | 0.48 | 0.42 | 0.37 | 0.33 | 0.29 | 0.26 | 0.23 | 0.20 | 0.18 | 0.16 | 0.14 | 0.12 | 0.11 | 0.10 | 0.09 | 0.08 | 0.07 | 0.06 | 0.05 |
| 13 | Discounted Tariff | 8.23 | 7.07 | 6.08 | 5.22 | 4.48 | 3.84 | 3.29 | 2.82 | 2.41 | 2.06 | 1.31 | 1.17 | 1.05 | 0.94 | 0.85 | 0.76 | 0.68 | 0.61 | 0.55 | 0.50 | 0.45 | 0.40 | 0.36 | 0.33 | 0.30 |
| 14 | Levelized Tariff/Unit | 6.77 | | | | | | | | | | | | | | | | | | | | | | | | |

12.25% APR
12.25% MAY
12.32% JUNE
0.13 JULY
13.40% AUG
13.75% SEP
13.75% OCT
13.23% NOV
13% DEC
12.25% JAN
12.25% FEB
12.25% MAR
12.79%

11.89%