

**PUNJAB STATE ELECTRICITY REGULATORY COMMISSION
SCO NO. 220-221, SECTOR 34-A, CHANDIGARH**

**Petition No. 41 of 2014
Date of Order: 28.08.2014**

In the matter of: Petition under Regulation 22 of PSERC (Terms and Conditions for Determination of Tariff), Regulations, 2012 for approval of capital expenditure for the implementation of Smart Grid Pilot Project at Sahibzada Ajit Singh Nagar

AND

In the matter of: Punjab State Power Corporation Limited (PSPCL), The Mall, Patiala-147001.

Present: Smt.Romila Dubey, Chairperson
Shri Virinder Singh, Member
Shri Gurinder Jit Singh, Member

ORDER

Punjab State Power Corporation Limited (PSPCL) filed this petition for seeking approval of capital expenditure for implementation of Smart Grid Pilot Project at Sahibzada Ajit Singh Nagar under Regulation 22 of the Punjab State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2012 (Regulations). PSPCL has submitted that as per regulation 22 (6) (iii) of the Regulations, the distribution licensee(s) are required to obtain prior approval of the Commission for each scheme other than that relating to release of connections, where capital expenditure is estimated to exceed ₹10 crore. The licensee is also required to submit supporting documents including project report alongwith cost benefit analysis while seeking approval of the Commission. PSPCL has further submitted that Ministry of Power, Government of India, decided to develop Smart Grids in India in stages by taking up 14 pilot Smart Grid Projects as suggested by India Smart Grid Task Force (ISGTF). In this regard, PSPCL has decided to implement Smart Grid Pilot Project in a small area falling under Tech-2 Sub-Division of

Sahibzada Ajit Singh Nagar. PSPCL submitted that this pilot project involves capital expenditure of more than ₹10 crore, out of which 50% funds will be granted by Ministry of Power, Government of India and remaining 50% funds shall be arranged by PSPCL. A Detailed Project Report (DPR) amounting to ₹10.11 crore has been approved by the Steering Committee of Ministry of Power, Government of India, in its meeting held on 06.08.2013. PSPCL has submitted the details of benefits that may accrue on account of Smart Grid Pilot Project by way of:

- (a) Advanced Metering Infrastructure (AMI) Implementation
 - (i) By reduction of AT & C losses
 - (ii) By reduction in Average Cost of Billing
- and (b) Peak Load Management (PML) – by which utility can reduce peak load demand

PSPCL has also submitted the Cost - Benefit Analysis of the proposal. Expected benefits from the smart Grid initiatives have been summarized as under:-

Sr No.	Initiative	Benefits (In ₹ crore per year)
1	By reduction of AT & C losses	1.51
2	By reduction in Cost of Billing	0.12
3	By shifting Peak Load	1.49
Total		3.12

Thus Pay Back Period has been worked out to be 3 years and 4 months approx. (10.11/3.12). PSPCL has filed a copy of the DPR containing the relevant information of the Pilot Project. PSPCL prayed to approve the investment proposal under the said Pilot Project for implementation of Smart Grid Pilot Project.

The Commission in its Order dated 02.07.2014 in this petition for approval of capital expenditure for the implementation of Smart Grid Pilot project at Mohali, directed PSPCL to arrange a presentation of the case on 25.07.2014. PSPCL arranged the presentation before the Commission on

25.07.2014. The salient features of the scheme brought out during presentation are as under:

1. The total cost of the project will be ₹10.11 crore out of which 50% is grant by MoP Gol and balance 50% will be arranged by PSPCL.
2. Ministry of Power has approved two attributes for implementation in PSPCL under this project i.e. Advanced Metering Infrastructure (AMI) and Peak Load Management (PLM).
3. About 2737 number of consumers will be covered under this scheme and project will be executed in 18 months from date of award.
4. The present AT&C losses of the project area are 16.17% which are expected to come down to 12.23% after project implementation. A total energy saving of 4.45 MU is expected which will translate into a revenue saving of ₹2.22 crore by assuming a unit rate of ₹5.
5. After implementation of the project, it is expected that the cost of billing (presently ₹600 per consumer) will be reduced by 75%. The total saving on this account shall be ₹0.12 crore per year.
6. It is expected that with the shifting of peak demand by 50%, a saving of ₹1.49 crore may be achieved.
7. The total saving with implementation of this project is expected to be ₹3.83 crore per year and thus estimated payback period has been projected as 2 years and 8 months (10.11/3.83).

The Commission notes that the above pilot project has been sponsored by Ministry of Power, Government of India with 50% grant and balance to be arranged by PSPCL. The payback period has been projected as 2 years and 8 months. The Commission accordingly accords a approval in terms of Regulation 22 (6) (iii) of Punjab State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2005 as amended vide notification dated 17.09.2012 to incur capital expenditure of ₹10.11 crore out of which 50% is to be arranged by PSPCL and rest is the

grant from Ministry of Power, Government of India. The expenditure shall be incurred in a judicious manner and PSPCL is directed to submit the details of benefits which may accrue with the implementation of this pilot project.

The petition is disposed of accordingly.

Sd/-
(Gurinder Jit Singh)
Member

Sd/-
(Virinder Singh)
Member

Sd/-
(Romila Dubey)
Chairperson

Chandigarh
Dated : 28.08.2014