

Before

UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

Petition No. 29 of 2015

In the matter of:

Petition for seeking approval for implementation of Domestic Efficient Lighting Program (DELP) for LED bulbs in the state of Uttarakhand under 24 X 7 Power for All.

And

In the matter of:

Uttarakhand Power Corporation Ltd., Dehradun

...Petitioner

Coram

Shri Subhash Kumar

Chairman

Shri K.P. Singh

Member

Date of Hearing: November 17, 2015

Date of Order: November 18, 2015

ORDER

This Order relates to the Petition filed by Uttarakhand Power Corporation Ltd. (hereinafter referred to as "UPCL" or "the Petitioner") under Section 50 & 56 of the Electricity Act, 2003 for seeking approval for implementation of Domestic Efficient Lighting Program (DELP) for LED bulbs in the state of Uttarakhand under 24X7 Power for All.

Background

1. UPCL vide its letter No. 4874/UPCL/RM/N-40 dated 05.11.2015 submitted a Petition for seeking approval for implementation of Domestic Efficient Lighting Program (DELP) by distribution of LED bulbs in the state of Uttarakhand under '24 X 7 Power for All'.
2. The Petition has also been filed in reference to the direction issued by the Commission in its Tariff Order dated 23.10.2009 for formulating a scheme for implementing the Demand Side Management Measures, wherein following had been directed:

“9. Demand Side Management (DSM) Measures

...
In the interest of the consumers and the State, the Commission directs the licensee:

...
iv) To formulate a project/scheme for implementing DSM measures as suggested above and submit it to Commission”

Petitioner’s Submissions

3. The Petitioner in its Petition has submitted that the implementation of the Domestic Efficient Lighting Programme (DELP) by distribution of LED bulbs to the consumers (belonging to Domestic category and to the Non-domestic category upto 10 kW) in the State of Uttarakhand, shall be implemented through Energy Service Company (ESCO), M/s Energy Efficiency Services Limited (EESL), New Delhi under the terms and conditions agreed upon with both the parties. The DELP scheme in the State is focused for household sector in the State of Uttarakhand. The capital investment required for implementation of the program will be made by the ESCO i.e. M/s EESL, New Delhi, in the first instance and the cost be recovered from the consumers and grant/subsidy received from the Government of Uttarakhand (GoU).
4. The Petitioner in its submission has submitted the outline of DELP Programme. Salient features of the same are as follows:-
 - (1) All Domestic & non-domestic consumers of the state with load upto 10 KW shall be provided upto three LED bulbs of 7 Watts each.
 - (2) The scheme shall be implemented for a period of 6 months from the date of announcement.
 - (3) Cost Details of the DELP Scheme:-
 - (a) Cost components of each LED Bulb:

Table 1: Cost Components of Each LED Bulb

S. No.	Particulars	Value in Rs.
1	Cost of LED Bulb (including VAT@13.5%)	84.30
2	Cost of Distribution, Insurance, Storage and Awareness per LED	15
3	EESL’s cost of capital, AMC and Service Tax	10.06
4	Total cost per LED Bulb	109.35

(b) Consumer category-wise details of the scheme:

Table 2: Consumer Category-wise Details

S. No.	Consumer category	No. of Consumers	No. of LED Bulbs	Category-wise Contribution		Cost (in Rs Crore)
				GoU (Rs. Cr)	Consumer (Rs. Cr)	
1	Domestic (BPL)	3,25,000	975000	8.04 (75%)	2.69 (25%)	10.73
2	Domestic (having monthly consumption upto 100 units)	9,10,000	2730000	7.51 (25%)	22.52 (75%)	30.03
3	Domestic (Others)	4,50,000	1350000	-	14.85	14.85
4	Non-Domestic (having load upto 10 kW)	1,70,000	510000	-	5.61	5.61
Total		18,55,000	55,65,000	15.55	45.67	61.22

(4) Recovery of Cost

The Petitioner in its petition has submitted following category-wise cost recovery mechanism for **Each LED Bulb**:-

Table 3: Recovery of Cost

S. No	Consumer Category	Recovery from Consumer (Rs.)		Recovery from GoU through UPCL (Rs.)		No. & type of Installments
		Down Payment	Through Installment	Down Payment	Through Installment	
1	Domestic (BPL)	2.50	5.00	7.50	15.00	(5)Bi-monthly
2	Domestic (having monthly consumption upto 100 units)	7.50	15.00	2.50	5.00	(5)Bi-monthly
3	Domestic (Others)	10.00	20.00	-	-	(5)Bi-monthly
4	Non-Domestic(having load upto 10 KW)	10.00	10.00	-	-	(10) monthly

(5) Benefits of the Scheme to Petitioner & Consumers of the State

(a) The petitioner in its petition has envisaged a total saving of Rs. 156.08 Crore as saving in Rupees on account of replacement of 3 LEDs with 3 GLS Bulb for each Domestic/Non-Domestic Consumer of the State. The same is as follows:-

Table 4: Benefits of the Scheme to Petitioner & Consumers of the State

a.	No. of Consumers	18,55,000
b.	Electricity Savings per hours per LED (60-7 Whr) (Unit)	0.053
c.	Electricity Savings per consumer p.a. (0.053 *3*4 hours *300 days) (Unit)	190.80
d.	Electricity Savings p.a. (190.80*1855000/1000000) (MU)	353.93
e.	Approved Rate of Electricity (Rs./Unit)	4.41
f.	Total Savings p.a. (353.93 MU * Rs. 4.41) (Rs. Cr)	156.08

- (b) The Petitioner has submitted that the DELP Programme would not only result in reducing the demand and supply gap but would also result in reducing yearly Electricity Bill of the Domestic/Non-domestic category consumers as per savings indicated in the table given below:-

Table 5: Annual Saving (Units & Rs.)

Particular	Domestic (BPL)	Domestic (having monthly consumption upto 100 units)	Domestic (Others)	Non-Domestic (having load upto 10 KW)
Electricity Savings to each consumer p.a. (Unit)	190.80	190.80	190.80	190.80
Average Rate of Electricity (Rs./Unit)	1.90	2.90	3.31	5.12
Yearly Reduction in the Electricity Bill (Rs.)	362.52	553.32	631.55	976.90

- (6) With regard to the procurement of LED bulbs the Petitioner has submitted that M/s EESL shall follow an open competitive bidding process to procure the LED Bulbs. The process will allow competition to ensure price discovery. The procurement will be done using the technical specifications finalized by M/s EESL and any benefit of cost reduction in LED prices will be passed on to the Consumers/Petitioner by M/s EESL.
- (7) With regard to distribution of LED Bulbs, the Petitioner has submitted that the LED bulbs will be distributed from designated counters set up in various locations in the State. These locations will be mapped in consultation with the State Agencies and could include billing centers of DISCOM, SEWA Kendras, prominent locations like schools etc. ESSL will engage distribution agencies that will help set up the distribution counters and ensure smooth distribution of LEDs.
- (8) With regard to the awareness and outreach of the Programme, the Petitioner has submitted that M/s EESL will organize Statewide multimedia campaign for providing information for DELP Scheme, imparting information with regard to advantages of LED lighting, monitory benefits to consumer in terms of reduction in electricity bills, information pertaining to distribution of LED Bulbs viz. place, date and time of distribution and other information related to the DELP Scheme
- (9) The Petitioner has submitted that the LED Bulbs provided by M/s EESL will have 3 years technical warranty which excludes physical damage, outdoor applications etc. and the faulty LED Bulbs will be replaced free of cost for three

years commencing after completion of the period of implementation of the Programme.

(10) The Petitioner has submitted that it will make payment to M/s EESL in 5 bi-monthly installments of Rs. 11,05,77,604 each i.e. in total Rs. 55,28,88,020 will be paid by the Petitioner to M/s EESL.

(11) The Petitioner has submitted that the recoverable value through installments paid by UPCL to M/s EESL will be as follows:

Table 6: Recoverable Value Through Installments

S. No.	Particulars	Value (units)
1	Cost of LED Bulb (including VAT@13.5%)	84.30 (INR)
2	Cost of Distribution, Insurance, Storage and Awareness per LED	15 (INR)
3	EESL's cost of capital, AMC and Service Tax	10.06 (INR)
4	Total cost per LED Bulb	109.35 (INR)
5	Upfront consumer contribution	10 (INR)
6	Net Cost per LED bulb	99.35 (INR)
7	Amount recoverable from consumers per LED	99.35 (INR)
8	Total number of LED Bulbs proposed for distribution assuming 18.55 Lacs consumers under scheme	55.65 (Lacs)
9	10 monthly installments (Rs 10 approx. per LED) recoverable from consumers	55.28 (INR Crore)

(12) The Petitioner has submitted that M/s EESL has planned for distribution of LED Bulbs in a phased manner and the Revenue cycle for recovery by M/s EESL will start on completion of each phase.

(13) The Petitioner has also submitted that the Government of Uttarakhand has accorded administrative approval to the scheme and has decided to contribute Rs. 15.55 Crore as a grant from the Uttarakhand Government towards the scheme for distribution of LED Bulbs to BPL consumers and Domestic consumers with consumption less than 100 units in a month. The GoU has decided to give grant as per Table No. 2 at point No. at 4(3) (b) above.

(14) The Petitioner has submitted that the DELP Scheme will be a voluntary scheme and those consumers who are willing to participate and agree to the terms and conditions of the scheme shall only be covered.

(15) With regard to safety aspects, the Petitioner has submitted that M/s EESL will ensure that the LED Bulbs used under this scheme complies with the technical specifications. The sample testing procedure may also be carried out at the manufacturing facility of the competitively selected LED manufacturers

through any NABL accredited laboratory jointly by M/s EESL and UPCL as part of this Programme.

- (16) The Petitioner in its petition has requested the Commission to allow it to :
- (a) Implement DELP Scheme as a part of 24 X 7 power for all in its license area.
 - (b) Recover the cost of LED Bulbs in 10 equal monthly/5 equal bi-monthly installments through the Electricity bill of the consumers of the State.
 - (c) Add one line item in electricity bill of the consumers.
 - (d) Treat default in payment of installment of LED Bulbs by consumers as default of payment as specified in section 56 of the electricity Act, 2003 read with UERC (The Electricity Supply Code) Regulations, 2007 to recover the charges.
 - (e) Make bi-monthly payment to M/s EESL as per payment schedule mentioned at point No. B. 4. (d) & (e) above.
 - (f) Provide bank guarantee/revolving letter of credit in favour of M/s EESL.
 - (g) Approve Energy Service Agreement annexed with the Petition.
5. The Commission decided to hear the matter on 17.11.2015 and accordingly issued a notice for hearing to the Petitioner with the direction to appear before the Commission alongwith Representative of M/s EESL.
6. The hearing was held on the scheduled date i.e. 17.11.2015. The Petitioner and the Representative of M/s EESL were present during the hearing and re-iterated their submissions included in the Petition.

Commission's views and Directions

7. The Commission heard the Petitioner and Representative of M/s EESL and allowed to admit the same. The Commission further enquired whether the Petitioner or M/s EESL have any reservation in distributing more than 03 LED Bulbs to the said category of the consumers of the State, to which the Representative of M/s EESL submitted that they have no objection in distributing more than 03 LED Bulbs on the said cost subject to the condition that such consumers make upfront payment of the entire amount of such additional LED Bulbs over and above quantity stipulated in the scheme. Further, MD, UPCL submitted that since the Government has already approved Rs. 15.55 Crore towards 03 LED Bulbs as subsidy for BPL consumers and Domestic consumers (having consumption upto 100 units per

month), it will not be possible to increase the subsidy support from GoU in this regard and cover distribution of additional bulbs in the scheme at this stage. However, MD, UPCL submitted that the licensee does not have any objection if M/s EESL distributes extra LED Bulbs over and above the quantity stipulated in this scheme on full payment by the consumers covered under this scheme up front as there would be additional substantial savings in energy after implementation of the scheme.

8. The Commission has observed that a similar scheme has been launched in the State of Delhi, Rajasthan and Himachal Pradesh successfully. With regard to DELP Scheme, the Commission is of the view that the scheme would facilitate mitigation of demand and supply gap in the State. Its effective implementation may also curtail peak demand flattening the peak load curve. Such DSM schemes have significant benefits to the Power System including Generation, Transmission, Distribution System and end users.
9. Based on the above, the Commission has decided to grant in-principle approval to the proposal of the Petitioner for implementation of Domestic Efficient Lighting Programme (DELP) subject to the following conditions:-
 - (a) The cost to be charged from the consumer for the number of bulbs being offered shall be Rs. 110 per bulb as indicated in the proposal or the actual price of the LED bulb as may be discovered through the competitive bidding process envisaged whichever is lower.
 - (b) The willing consumers shall be required to register its requirement and if so permitted, indicate separately the number of LED bulbs which they intends to take under the proposed scheme. Further, the scheme shall be applicable to only those consumers who are having no arrears as on date of applying for the Scheme.
 - (c) As part of the registration, the consumer shall:
 - (i) Agree to pay Rs. 10/- per LED bulb as upfront cost, at the time of receipt of the LED bulbs.
 - (ii) Authorize the licensee to recover the remaining cost towards LED bulbs through electricity bills in equal installment within 1 (one) year from the date of first bill for recovery of cost of LED bulbs, as per its respective billing cycle in accordance with Table 3 above.

- (d) Any domestic and Non-domestic consumer upto 10 kW can avail maximum 10 LED Bulbs and for the same they will have to make upfront payment or make upfront payment of the cost of LED Bulbs in excess of 03 LED Bulbs for which payment shall be made in accordance with clause (c) above.
- (e) The recovery on account of these LED bulbs shall be shown as a separate item in the electricity bills by the Petitioner and the same shall not constitute a part of the collection efficiency to form part of AT&C loss computations of the licensee.
- (f) The Petitioner may provide an appropriate payment security mechanism for the DELP Scheme in favour of M/s EESL to the extent of monthly recovery of installments as per the agreement between the Petitioner and M/s EESL. For ensuring the payment security to M/s EESL, the Petitioner shall open an escrow account in a Bank after consulting with M/s EESL.
- (g) The agreement for implementation of this program shall be exclusively between M/s EESL & the Petitioner and the payment schedule shall be based on the actual number of LED bulbs received by the consumers.
- (h) The Petitioner shall not make any capital investment or incur other expenditure for implementation of this scheme.
- (i) The Petitioner shall promptly pay to M/s EESL the amount recovered from the consumers from time to time who have opted for purchase of LED bulbs under the scheme as per the payment norms agreed upon by the 2 parties.
- (j) The Petitioner shall not be liable to pay any levy/taxes etc. payable by the M/s EESL separately. Such amount shall be recovered from the consumers who have opted to avail the benefit of scheme.
- (k) For distribution of LED bulbs, designated centers shall be run/manned by M/s EESL in consultation with UPCL.
- (l) Since it is voluntary scheme, the Petitioner would in any way not be liable for less off-take of the Bulbs than estimated.
- (m) M/s EESL shall be required to maintain a stock of minimum 2% LED Bulbs for catering to the requirement of LED Bulbs replacement as and when arising during the warranty period of 3 years. M/s EESL shall ensure that replacement of defective LED Bulb shall be done within 7 days of filing a complaint by the consumer(s) during the warranty period of 3 years.

- (n) LED bulbs shall conform to the latest technical specifications stipulated by the Indian/International Standards in this regard.
- (o) The Petitioner in consultation with M/s EESL shall put in place a mechanism for swift replacement of defective LED bulbs if brought by the consumers. The Petitioner shall obtain suitable performance guarantee from M/s EESL for replacement of defective LED bulbs during the warranty period.
- (p) The Petitioner is required to prepare warranty claim & replacement mechanism as well as mechanism for transfer of benefit of LED Bulbs cost reduction with respect to the proposed cost, if any, within one month from the date of this Order.
- (q) The Agreement between the petitioner and M/s EESL shall be redrafted in terms of this order.

Ordered accordingly.

(K.P. Singh)
Member

(Subhash Kumar)
Chairman