ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION

11-4-660, 4th Floor, Singareni Bhavan, Red Hills, Hyderabad 500 004 Phone Nos. (040) 23397381 / 399 Fax No. (040) 23397378 website: www.aperc.gov.in

PUBLIC NOTICE

O.P. No. 22 of 2016

TAKE NOTICE that Eastern Power Distribution Company of A.P. Ltd (APEPDCL) filed a petition seeking approval of the Commission for implementation of Domestic Efficient Fans Programme (DEFP) in its area of operation in the State of Andhra Pradesh (except Narasapuram Revenue Division of West Godavari District) under Demand Side Management programme. The said petition is taken on the file of the Commission under Section 86 (1) (k) of the Electricity Act, 2003 and the same, together with annexures, is placed on the website of the Commission for reference of all the stakeholders.

- 2. The Commission invites views / objections / suggestions of any interested person / stakeholder in respect of the above mentioned petition filed by APEPDCL. Response or objections may be sent to the Commission Secretary/APERC on or before 5.00 PM on 19-11-2016 at the above mentioned address or through email commn-secy@aperc.gov.in.
- 3. TAKE FURTHER NOTICE that the above mentioned petition will be taken up for hearing on 19-11-2016 at 11.00 AM in the Court Hall of the Commission and any interested person / organization desirous of being heard in person, may appear before the Commission at Hyderabad on the said date of hearing.

Place: Hyderabad Date: 25-10-2016

COMMISSION SECRETARY I/C

25.10.2016

CAR. NO. 33/2016

PETITION BY DISCOM

BEFORE THE ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION FOR THE STATE OF ANDHRA PRADESH

FILE NO:

O.P.No. 22/2016

Petition No. /2016

IN THE MATTER OF:

Seeking approval of the Hon'ble Commission for implementation of Domestic Efficient Fans Programme (DEFP) in the areas of operation of Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL) in the state of Andhra Pradesh (Except Narasapuram Revenue Division of West Godavari District) under Demand Side Management Programme.

AND

IN THE MATTER OF:

Eastern Power Distribution Company of Andhra Pradesh Limited

- Petitioner

Affidavit

- I, P. Nageswara Rao, Son of P.Sriramulu aged about 52 Years, residing at Visakhapatnam the deponent named above do hereby solemnly affirm and state on oath as under:-
- 1. That the deponent is the Chief General Manager/Planning, PP&RA Of Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL) duly authorised by APEPDCL to make this affidavit on its behalf and the deponent is acquainted with the facts deposed below,
- 2. I, the deponent named above do hereby verify that the contents—of the affidavit and those of the accompanying petition are true to my personal knowledge and verify that no part of this affidavit is false and nothing material has been concealed.



Enclosures

- 1. Annexure A: Monthly Repayment Schedule to EESL
- 2. Financial Calculation for Fans Programme

Deponent

CHIEF GENERAL MANAGER
Planning, Power Purchase & RA
A.P.E.P.D.C. Ltd.
VISAKHAPATNAM - 13

VERIFICATION.

The above named Deponent solemnly affirm at Visakhapatnam on this 1715 day of October 2016 that the contents of the above Affidavit are true to my knowledge no part of it is false and nothing material has been concealed there from.

Deponent

CHIEF GENERAL MANAGER
Planning, Power Purchase & RA
A.P.E.P.D.C. Ltd.
VISAKHAPATNAM - 13

Solemnly affirmed and signed before me

K.S.V.S. Sast FCS-8286 Company Secretary CORPORATE OFFICE Eastern Power Distribution

Company of A.P. Ltd., VISAKHAPATNAM

BEFORE THE

ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION FOR THE STATE OF ANDHRA PRADESH

FILE NO:

Petition No. 22/2016

IN THE MATTER OF:

Seeking approval of the Hon'ble Commission for implementation of Domestic Efficient Fans Programme (DEFP) in the areas of operation of Eastern Power Distribution Company of Andhra Pradesh Limited in the state of Andhra Pradesh (Except Narasapuram Revenue Division of West Godavari District) under Demand Side Management Programme.

AND

IN THE MATTER OF:

Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL)

-Petitioner

MOST RESPECTFULLY SHOWETH THE ADDITIONAL SUBMISSION:

- 1. APEPDCL humbly submits a proposal to implement the Domestic Efficient Fan Programme (DEFP) in the areas of operation of Eastern Power Distribution Company of Andhra Pradesh Limited in the state of Andhra Pradesh (Except Narasapuram Revenue Division of West Godavari District) through an Energy Service Company (ESCO) M/s. Energy Efficiency Services Limited, New Delhi.
- 2. APEPDCL submits that M/s. Energy Efficiency Services Limited, New Delhi, have submitted a Programme for implementation of DEFP for Fans in Domestic sector, commercial sector and Institutional (Industrial) sector in the operational area of APEPDCL, Andhra Pradesh. (Except Narasapuram Revenue Division of West Godavari District) As per the proposal, the capital investment required for implementation of the program will be made by the ESCO i.e. M/s. Energy Efficiency Services Limited, New Delhi and the DISCOM shall make payment to Energy Efficiency Services Limited by recovering the cost from consumers in 24 monthly installments.

3. DEFP Programme Outline

Under the program, the DISCOM along with the technical and financial support of M/s. Energy Efficiency Services Limited has envisaged to undertake the following tasks.

- 1. EESL will undertake distribution of Energy Efficient ceiling fans up to maximum 2 EE fans on EMI mode and up to maximum 4 EE fans on upfront mode to Domestic consumers and as per requirement basis to Commercial Consumers & Industrial consumers on only Upfront mode in the entire area of APEPDCL (except Narasapuram Revenue Division) in Rs.1100 at a price (inclusive of Cost of EE fans, Distribution, Insurance, Storage, Awareness, Registration, Annual Maintenance Cost (AMC), Applicable Taxes, etc.)
- 2. Domestic Consumers can buy BEE 5 star rated ceiling fans either on Upfront Payment Option or on On Bill Financing (OBF) option. Commercial consumers and Institutional (Industrial) category consumers can buy BEE 5 Star rated ceiling fans only on Upfront Payment option.
- 3. Under upfront payment option, Consumer can buy BEE 5 star ceiling fans by paying entire amount upfront. Consumer shall make upfront payment (One-time payment of Rs 1100 per fan).
- 4. Under On Bill Financing (OBF) option, the total cost will be recovered through monthly electricity bill over 24 installments of Rs. 52.08 each. Domestic Consumer can avail up to 2 fans under OBF Option. Only domestic consumers with no arrears in last three consecutive billing cycles will be eligible for availing OBF Option.
- 5. The actual price will be discovered through open competitive bidding. Any benefits realized during price discovery shall be passed on to consumers.

4. Energy Savings

The DISCOM submits the workings for the deemed energy savings on account of offering of a BEE 5 star rated Energy Efficient Fans along with the assumptions as below:

Particulars	Units	West Godavari*	East Godavari	Vishakapatnam	Vizianagaram	Srikakulam
Number of fans proposed to Distribute in Circle	Nos.	2,00,000	3,50,000	3,00,000	1,50,000	2,00,000

* Except Narsapuram Revenue Division

Particulars	Unit	Total
Number of Fans offered under this Scheme in Entire area of APEPDCL Except Narsapuram revenue Division	Number	12,00,000
Wattage of Zero Star rated fan	Watt	75
Wattage of Five Star rated Efficient Fan	Watt	50
Power saving	Watt	25
Hours of Usage	Hrs/Day	14
Operating days per year	Days / Year	300
Energy saved per Fans per Day	KWH	0.35
Energy saved per Fans per year	KWH	105
Energy Saved under the Scheme per Annum	Million KWh	126
Total Load Reduction	MW	30

The deemed annual saving of energy under DEFP is around 126 Million units.

5. Cost Benefit Analysis

DISCOM humbly submits that the implementation of DEFP in the area of APEPDCL in Andhra Pradesh (Except Narasapuram Revenue Division) would result into energy savings of 126 Million units per annum. The financial payouts / receivable involved in implementation of this scheme, is given in the table below.

S.No.	Description	Amount (In Crore Rupees.)
1	Monthly Repayment to EESL for 24 months - as per Annexure 'A'	Rs 6.25
2	Total investment to be made by M/s. Energy Efficiency Services Limited	Rs. 104.48
3	Total Payout to be made to M/s. Energy Efficiency Services Limited during the project period of 24 months including 0&M charges, including Service Tax by recovering cost from the consumers.	
4	Annual Reduction in Power Procurement Cost for DISCOM (Assumed @Rs.3.95/unit)	Rs. 49.77
5	Net Payout from the ARR of the DISCOM	NIL

Note: This is assuming that all BEE 5 Star ceiling fans will be availed on OBF. The actual payments may change based on the actual ratio of OBF and Payment option in availing BEE 5 star rated fans.

6. Procurement of BEE five star rated fans

EESL will follow an open competitive bidding process to procure the fans. The process will allow competition to ensure price discovery. The procurement will be done using the technical specifications of BEE 5 star rated ceiling fans and will ensure that high quality fans with 2.5 year

technical warranty are procured at least cost. Any benefit of cost reduction will be passed on to the Consumers.

7. Distribution of BEE 5 Star Fans

The fans will be distributed from designated counters set up in various locations in the area of APEPDCL, Andhra Pradesh. These locations will be mapped in consultation with the state agencies and could include billing centres of DISCOMS, SEWA Kendras, prominent locations like schools, etc. EESL will engage distribution agencies that will help set up the distribution counters and ensure smooth distribution of Fans. The key elements of the distribution will be:

- i. Mapping and finalization of distribution counters for ensuring smooth distribution.
- ii. Arranging storage facilities for fans, including temporary storage at distribution centres.
- iii. Finalisation of distribution plan.
- iv. Compilation of distribution data and preparation of MIS reports of distribution.

8. Awareness and Outreach

A state-wide multimedia campaign will be designed and implemented jointly between M/s Energy Efficiency Services Limited and Andhra Pradesh State Energy Conservation Mission implemented and equally funded to support the Programme.

The campaign will focus on:

- i. Providing information about the DEFP scheme
- ii. Dissemination of information about the comparative advantage of Energy Efficient Fans.
- iii. Providing information about the monetary benefit to the consumers in terms of reduction of their electricity bills
- iv. Information regarding the place, date and time of distribution of Fans.
- v. Any other information that is directly or indirectly related to the implementation of the scheme

9. Payments to EESL

- i. APEPDCL shall make payment to Energy Efficiency Services Limited to recover the investment made as per the schedule in Annexure -A. The payment will be based on the actual numbers of BEE 5 star ceiling fans distributed by EESL.
- ii. APEPDCL shall include the amount payable by consumers choosing the OBF option in their bills and collect the same. Such payment due to EESL by APEPDCL shall be linked with the recovery of project cost from Consumers.

iii. List of Consumers opted for On-bill financing and upfront option will be submitted to APEPDCL by EESL on fortnightly basis and invoice raised on monthly basis.

10. Technical Aspects

- i. M/s. Energy Efficiency Services Limited will ensure that the BEE 5 star rated
 Ceiling fans used under this project complies the BEE 5 star ceiling fan standars
- ii. The sample testing procedure may also be carried out in any laboratory accredited by NABL jointly by M/s. Energy Efficiency Services Limited and APEPDCL as part of this Programme, in order to ensure compliance to the standards of BEE 5 star ceiling fans.
- iii. EESL agrees to extend guarantee for replacement of the faulty fans due to technical defects at free of cost for 2.5 years commencing after implementation of the project. Technical defects excludes physical damage, etc.

11. Other Benefits

The Other accrued benefits upon implementation of this DEFP are as given below.

House Hold Sector

► Helps to reduce their energy consumption and its cost.

Distribution Utility

- Aids the department in reducing the demand & Supply gap.
- Minimize load shedding during peak hours.
- > To meet demands of other cross subsidized consumers like commercial and industrial establishment.
- ➤ Generate additional revenue through sale of deemed energy saving to cross subsidized consumers and thereby helps to bridge the gap between the Average Cost of supply and the cross subsidized tariff rates.

Cross Subsidized Category

The tariff rates for the cross subsidized categories will progressively reduced due to reduction in cross subsidized costs.

Society

- Energy security.
- > Mitigation of climate changes and protection of environment

12. Project Financial at a Glance

The Programme cost (inclusive of cost of the BEE 5 star fan, Distribution Cost, Awareness Cost, Annual Maintenance Cost, Debt Interest Cost, Return on Equity, Taxes or any other cost on account of implementation of this scheme) to be recovered from the consumer under Upfront and On-Bill Financing Option shall be determined as per formulae given below:

Tentative Project Cost:

Sl No.	Particulars	Components of Programme	Price per fan			
		Cost per Fan	EMI	Upfront		
1	Cost of the Fan	As determined through competitive bidding.	796.95	796.95		
2	Entry Tax	0% of the Cost of the LED Bulb as determined under Sl. No. 1	-	-		
3	Cost of the Distribution	At actuals	51.75	51.75		
4	Media, Awareness and Software of fan	At actuals	22.00	22.00		
5	Annual maintenance charges	1.5% of the Cost of the fan per annum for 2.5 years	32.65	32.65		
6	Debt Interest Cost	10% per annum	125.69	17.41		
7	Return on Equity (i.e. 140% plus Tax Rate @ 34.61%)	21.41% per annum	53.21	37.28		
8	Programme Cost per fan (Excluding Sales Tax)	Sum of Sl. No. 1 to 6	1,082.25	958.05		
9	Sales Tax Liability 14.5%	14.5 % on Sum of Sl. No. 1 to 6	156.93	138.92		
10	Programme Cost per fan (Including Sales Tax)	Sum of Sl. No. 7 & 8	1,239.18	1,096.96		
	Round off		1,250.00	1,100.00		

Note: Taxes such as Service tax, sales tax or other taxes as applicable will be charged on actual basis.

13. PRAYER

Thus, the APEPDCL humbly prays before the commission to consider this petition and pass necessary orders on the following:

- 1. Allow APEPDCL to implement the Domestic Efficient Fans Programme (DEFP) as part of DSM measures, with the financial support of M/s. Energy Efficiency Services Limited, New Delhi.
- 2. Allow APEPDCL to recover the cost in 24 monthly installments through the electricity bill of the participating consumers.
- 3. In order to recover cost from consumers through their electricity bill, allow APEPDCL to make necessary modifications/additions in electricity bill of consumers by adding one line item.
- 4. Authorize APEPDCL to treat default in payment of installments by consumers as "default of payment" under sec 56 of the Electricity Act, 2003 read with Andhra Pradesh Electricity Supply Code (i.e. disconnection of supply in default of payment) or as amended from time to time and recover such charges by suit, cut-off the supply of electricity.
- 5. Allow the DISCOM to recover the annual payout to be made to M/s. Energy Efficiency Services Limited through the consumer On-Bill-Financing.
- 6. Allow APEPDCL
 - To make monthly payout to M/s. Energy Efficiency Services Limited as per clause No-9 of the petition.
 - To provide irrevocable and revolving Letter of Credit (LC) in favor EESL
- 7. Pass necessary orders as deem fit by the Hon'ble Commission.

CHIEF GENERAL MANAGER

Planning, Power Purchase & RA A.P.E.P.D.C. Ltd.

VISAKHAPATNAM - 13

Date: | 7.10.2016.

Place: Visakhapatnam.

Annexure A: Monthly Repayment Schedule to EESL

Month	Amount Recovered from Consumers (Rs)	Payouts out of APEPDCL's DSM Fund or Govt. Subsidy to APEPDCL (Rs)	Total Payment to EESL (Rs)
1	62,500,000	0	62,500,000
2	62,500,000	О	62,500,000
3	62,500,000	0	62,500,000
4	62,500,000	0	62,500,000
5	62,500,000	0	62,500,000
6	62,500,000	0	62,500,000
7	62,500,000	0	62,500,000
8	62,500,000	0	62,500,000
9	62,500,000	0	62,500,000
10	62,500,000	0	62,500,000
11	62,500,000	0	62,500,000
12	62,500,000	0	62,500,000
13	62,500,000	0	62,500,000
14	62,500,000	0	62,500,000
15	62,500,000	0	62,500,000
16	62,500,000	0	62,500,000
17	62,500,000	0	62,500,000
18	62,500,000	0	62,500,000
19	62,500,000	0	62,500,000
20	62,500,000	0	62,500,000
21	62,500,000	0	62,500,000
22	62,500,000	0	62,500,000
23	62,500,000	0	62,500,000
24	62,500,000	0	62,500,000
Total	1,500,000,000		1,500,000,000

No of Fans Proposed to Distribution under scheme in APEPDCL area

1,200,000

Particulars	Unit	West Godavari	East Godavari	Vishakapatnam	Vizianagaram	Srikakulam
Number of Fans offered under this Scheme	Number	200,000	350,000	300,000	150,000	200,000
Wattage of Zero Star rated fan	Watt	75	75	75	75	75
Wattage of Five Star rated Effciient Fan	Watt	50	50	50	50	50
Power saving	Watt	25	25	25	25	25
Hours of Usage	Hrs/Day	14	14	14	14	14
Operating days per year	Days / Year	300	300	300	300	300
Energy saved per Fan per Day	KWH	0.35	0.35	0.35	0.35	0.35
Energy saved per Fan per vear	KWH	105.00	105.00	105.00	105.00	105.00
Energy Demand Saved per year	Million KWh	21.00	36.75	31.50	15.75	21.00
Energy Saved under the Scheme per Annum Million KWh	Million KWh	21.00	36.75	31.50	15.75	21.00
Total Energy Saved Under the scheme per annum	Million KWh			126.00		

	Fin	Financial Calculation for DEFP Program		
SI No.	Particulars	Components of Programme Cost per	Price	Price per fan
		Fan	EMI	Upfront
-	Cost of the Fan	As determined through competitive bidding.	796.95	796.95
2	Entry Tax	0% of the Cost of the LED Bulb as determined under SI No. 1		
т	Cost of the Distribution	At actuals	51.75	51.75
	Media, Awarenes and Software of fan	At actuals	22.00	22.00
4	Annual maintenance charges	1.5% of the Cost of the fan per annum for 2.5 years	32.65	32.65
S.	Debt Interest Cost	10% per annum	125.69	17.41
9	Return on Equity (i.e. 140% plus Tax Rate 21.41% per annum @ 34.61%)	21.41% per annum	53.21	37.28
7	Programme Cost per fan (Excluding Sum of SI. No. 1 to 6 Sales Tax)	Sum of SI. No. 1 to 6	1,082.25	958.05
00	<u>.</u>	14.5 % on Sum of SI. No. 1 to 6	156.93	138.92
တ	Programme Cost per fan (Including Sum of SI. No. 7 & 8 Sales Tax)	Sum of SI. No. 7 & 8	1,239.18	1,096.96
	Round off		1,250.00	1,100.00
	Installment considering 24 Months		52.08	



									e .	12 Months			
	Upfront	796.95	22.00	51.75	870.70	32.65		903.35	17.41	37.28	958.05	138.92	1,096.96
	OBF	796.95	22.00	51.75	870.70	32.65		903.35	125.69	53.21	1,082.25	156.93	1,239.18
FAN COST COMPONENTS	Programe Cost	Cost per FAN Including taxes	Media, Awareness and Software of FAN	Distribution cost	Total cost per FAN	AMC @ 1.5% p.a. fcr 2.5	years	Total Cost per FAN Afrer	Interest Cost (10%)	Return on equity(21.41%)	Selling Price Per FAN	Sales Tax @ 14.5%	Total Programme Cost per

consumer ROUND OFF EMI as per 24 months

1.09

1.09

1.09 1.09

1.09

1.09 1.09

1.09

1.09 1.09

1.09

AMC @ 2% without escalation