

**ODISHA ELECTRICITY REGULATORY COMMISSION
BIDYUT NIYAMAK BHAWAN
PLOT No.4, CHUNOKOLI, SHAILASHREE VIHAR,
BHUBANESWAR – 751 021**

**Present: Shri S. C. Mahapatra, Chairperson
Shri G. Mohapatra, Member
Shri S. K. Ray Mohapatra, Member**

Case No. 79/2023

M/s. TPCODL, TPWODL, TPSODL & TPNODL Petitioner
Vrs.
M/s. GRIDCO Ltd. & Others Respondent

In the matter of: Application of the DISCOMs of Odisha under Section 42(1), 61, 86 (2) of the Electricity Act, 2003 read with Clause 5.9.2, 5.9.4 and 5.9.6 of the National Electricity Policy and in accordance with Regulation 10 of the OERC (Demand Side Management) Regulations, 2011 for approval of Energy Efficiency Program for Domestic Consumers for Promotion of Demand Side Management in the State of Odisha.

For Petitioner: Shri V. Wagle (Head- Regulatory Affairs) TPSODL for self and on behalf of the other DISCOMs, Shri K. C. Nanda, GM (Regulatory & Strategy), TPWODL and Ms. Malancha Ghosh, DGM (RA), TPNODL.

Respondent: Shri B, K Das, Sr. GM (Electrical), GRIDCO Ltd.; Shri B.C. Padhiary, CGM (F), GRIDCO; Sri Subhashis Samantaray, DGM (RT & C), OPTCL; Ms. Nadi Yagnyaseni, S.E, EIC (Electricity-cum-PCEI), DoE, GoO; the Representative of SLDC; and Shri Bibhu Charan Swain, Director, M/s. Swain & Sons Power Tech Pvt. Ltd.

ORDER

Date of hearing: 07.11.2023

Date of Order: 17.11.2023

The Petitioner- M/s. TPCODL on behalf of all 4 DISCOMs of Odisha has filed a common application under Section 42(1), 61, 86 (2) of the Electricity Act, 2003 read with Clause 5.9.2, 5.9.4 and 5.9.6 of the National Electricity Policy and in accordance with Regulation 10 of the OERC (Demand Side Management) Regulations, 2011 for approval of Energy Efficiency Program for Domestic Consumers for Promotion of Demand Side Management (DSM) in the State of Odisha.

2. M/s. TPCODL, in line with the above provisions, had earlier filed an application on 19.08.2023 for approval of cumulative funding of Rs. 51.5 Cr. over five years for all 4 DISCOMs towards energy efficiency program for domestic consumers for the promotion of DSM in the State of Odisha. The proposal was for the introduction of a five-year Scheme from FY 2023-24 to FY 2027-28, for replacement of (i) 5,00,000 Nos. energy

inefficient Induction Fans with Brush-Less Direct Current (BLDC) Fans (Maximum two per household) and (ii) 50,000 Nos. of less efficient Air Conditioners (ACs) with BEE 5 Star Rated ACs (maximum one per household). The cost of one BLDC Fan & one BEE 5-star AC comes about Rs.2200/- & Rs.39000/- respectively. A Subsidy of 50% in case of BLDC Fans and 25% in case of 5 Star BEE Rated ACs was proposed to be provided to household consumers to encourage transition to energy efficient appliances. The Government of Odisha was to finance up to 60% of such subsidy and the balance 40% was to be recovered from the ARR of the respective DISCOMs over the period of 5 years. In addition to the above, the petitioner has proposed Rs. 10 Cr. for meeting the Information, Education, and Communication (IEC) expenses together with expenditure on the implementation of the Scheme including other associated activities.

3. The Commission has registered the application of TPCODL filed on 19.08.2023 as Case No. 79/2023 and decided to dispose of this case through a public hearing. Accordingly, a Public Notice was published on 23.08.2023 for submission of objections/ suggestions and participation in the hearing. Subsequently, in line with the discussions with the Department of Energy, Govt. of Odisha, DISCOMs have filed an amended Petition on 02.09.2023 with a proposal for doubling the quantum of coverage. Further, the revised cost of replacement of the appliances was submitted in line with the costs intimated by the Chief Electrical Inspector, Department of Energy which included the cost of removal and installation.
4. The revised proposal was to replace 10,00,000 energy-inefficient induction Fans with BEE 5-star rated BLDC Fans (with a maximum of 2 Fans per household) instead of the previously proposed 5,00,000 Fans mentioned in the earlier petition dated 18.08.2023 and to replace 100,000 less energy-efficient ACs (with less than BEE 5-star rating) with BEE 5-star rated ACs (one per household) instead of the previously proposed 50,000 Air Conditioners mentioned in the earlier petition dated 19.08.2023. DISCOMs had proposed a total DSM expenditure of Rs. 126 Cr. over five years to be considered in their Aggregate Revenue Requirement (ARR), out of which Rs. 111.00 Cr. was proposed for the replacement of energy-inefficient appliances with energy-efficient appliances and Rs. 15 Cr. towards Information, Education, and Communication (IEC) expenses and other related expenditures for implementation of the Scheme. However, the subsidy pattern was the same as it was proposed earlier.
5. During the hearing on 12.09.2023, the Commission has observed that the proposed DSM model submitted by the petitioner lacks proper plan, implementation process, and yearly

savings to the consumers. The petitioner submitted that Government of Odisha will provide subsidy/ incentive for the proposed scheme. The Commission therefore asked the Respondent- Department of Energy, Government of Odisha to file their response as to whether they would be able to bear the subsidy/ incentive as per the proposal. Mr. Bibhu Swain, the Objector representing M/s. Swain & Sons Power Tech Pvt. Ltd. (SSPTPL) entered into appearance and submitted that the application has not been filed as per the formats prescribed in the OERC (Demand Side Management) Regulations, 2011. He further submitted that he would submit his response after the DISCOMs submit their proposal in the prescribed formats as per the OERC (Demand Side Management) Regulations, 2011. In view of the above, the Commission had directed DISCOMs to file a revised petition in consultation with the Department of Energy, Government of Odisha. Accordingly, TPCODL filed an amendment petition on 25.09.2023, and requested the Commission to consider this latest petition in lieu of all the earlier petitions.

6. The Petitioner – M/s TPCODL on behalf of all four DISCOMs has made the following submissions:

a) It is proposed to replace 20,00,000 induction Fans with BEE 5 Star rated Brush-Less Direct Current (BLDC) Fans (i.e., 5,00,000 nos. of Fans by each DISCOM) for Domestic (private) consumers (maximum 2 nos. per household). DISCOM-wise schedule for replacement is as follows:

Table- 1

DISCOMs	TPCODL	TPSODL	TPWODL	TPNODL	Total
FY 23-24	20,000	20,000	20,000	20,000	80,000
FY 24-25	1,20,000	1,20,000	1,20,000	1,20,000	4,80,000
FY 25-26	1,20,000	1,20,000	1,20,000	1,20,000	4,80,000
FY 27-28	1,20,000	1,20,000	1,20,000	1,20,000	4,80,000
FY 28-29	1,20,000	1,20,000	1,20,000	1,20,000	4,80,000
Total	5,00,000	5,00,000	5,00,000	5,00,000	20,00,000

b) The break-up of the installation cost of Rs.3416 (incl. GST) for replacement of one existing Induction Fan with one BEE 5 Star BLDC Fan is as under:

Table-2

Sl. No.	Particular	Amount (Rs.)
1	Basic Price of one BEE 5 Star BLDC Fan	2405
2 (1 x 18%)	GST @ 18%	432.9
3 (1+2)	Total Price of one BEE 5 Star BLDC Fan incl. GST	2837.9
4	Dismantling and Installation Charges	250
5 (1x 10%)	Transportation Charges	240
6 [(4 +5) x 18 %]	GST @ 18% on Dismantling, Installation & Transportation Charges	88
7 [3+4+5+6]	Total cost of Installation of one BEE 5 Star BLDC Fan (Supply and Service Cost including Transport)	3416

Accordingly, the total cost for the replacement of 20,00,000 induction Fans with BEE 5 Star rated BLDC Fans for Domestic (Private) consumers will be Rs. 683.20 Cr.

- c) The annual savings from such installation vis-à-vis conventional induction Fans is as under:

Table-3

Type of Fan	watt	Hourly Consumption (Units)	Daily Consumption (Units)	Yearly Consumption (Units)	Yearly Cost at Average Electricity Charges of Rs. 5.50 per unit (Rs.)
A	B	C	D= C X 15 Hrs	E = D X 365	F = E X Rs. 5.5
Induction based Fan	75	0.075	1.125	411	2258
BEE 5 Star BLDC Fan	28	0.028	0.42	153	843
Annual Savings				257	1415

- d) DISCOMs have submitted that the conventional induction-based Fan consumes around 75 watts while a BEE 5 Star BLDC Fan consumes about 28 watts. If a Fan runs for more than 15 hours on a daily basis, at an average electricity cost of Rs. 5.5 per unit and an average price of installation of BLDC Fan at Rs. 3416 per Fan (Table-1), its full cost can be recovered in less than three years (Rs. 3416/ Rs.1415=2.4 years) in the form of energy-savings with BEE 5 Star BLDC Fans.
- e) The estimated annual energy savings due to the use of a BEE 5 Star BLDC Fan over a conventional induction Fan is about 257 units. As a result, the estimated cumulative annual energy savings for consumers participating in this DSM program for a total of 20,00,000 Fans shall be about 515 MUs per year, and annual monetary saving at consumers end would be around Rs. 283 Cr.

- f) Further, there will be reduction in power requirement to meet the demand. Based on the target of T&D Loss reduction for FY 2023-24, the expected annual avoidable power purchase for GRIDCO works out to 646 MUs which translates into savings in Power Purchase Cost of Rs. 200 Cr. for GRIDCO at an Average Power Purchase Cost (APPC) of Rs.3.1034 per unit as approved in GRIDCO's BSP Order for FY 2023-24. This is significantly higher than the DSM expenditure of Rs. 152 Cr. being sought in ARR of all four DISCOMs collectively. The computation of savings in terms of power purchase (MUs) and its corresponding marginal cost is as follows:

Table-4

Sl. No	Particulars	UoM	TPCODL	TPSODL	TPWODL	TPNODL	Total
A	Total savings in Energy consumption	MUs	128.66	128.66	128.66	128.66	515
B	T&D Loss (FY 2023-24)	%	21.21	25.00	18.08	16.25	-
C [A/(1-B)]	Marginal Power Purchase saving	MUs	163.29	171.55	157.06	153.62	646
D	Average Power Purchase Cost of GRIDCO (FY 2023-24)	Rs. /Unit	3.1034	3.1034	3.1034	3.1034	-
E (C/10 X D)	Savings in power purchase cost of GRIDCO (FY 2023-24)	Rs. in Cr.	50.68	53.24	48.74	47.68	200

- g) DISCOMs have submitted the following year-wise allowance of DSM expenditure to be considered in the ARR of each DISCOM:

Table- 5

Sl. No.	Particular	Uo M	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	Total
A	Number of BEE 5-star BLDC Fan Proposed to be installed (replacing existing induction Fans) by each of DISCOMs	Nos.	20000	120000	120000	120000	120000	500000
B	Cost of Installation of one BEE 5 Star BLDC Fan by replacing existing induction Fan (Incl. GST)	Rs.	3416	3416	3416	3416	3416	17080

C (20% X B)	Subsidy/Incentive per BEE 5-star BLDC Fan by way of Allowance as DSM Expenditure in ARR	Rs.	683	683	683	683	683	3415
D (A X C /10^7)	The total cost of Subsidy/Incentive for BEE 5-star BLDC Fan as DSM Expenditure in ARR for each DISCOM	Rs. In Cr.	1.37	8.20	8.20	8.20	8.20	34.15
E	Expenditure towards Information, Education, and Communication (IEC) expenses and other expenses for Implementation of the Scheme as DSM Expenditure in ARR	Rs. In Cr.	0.75	0.75	0.75	0.75	0.75	3.75
F (D+E)	Total 'DSM Expenditure' to be allowed in ARR each DISCOM	Rs. In Cr.	2.12	8.95	8.95	8.95	58.95	37.92

- h) The annual energy saving of 515 MU after implementation of the scheme will cause a reduction of CO₂ emission (Conversion factor of 0.82 kg/kWh) of about 4.2 Lakh tons per annum. No monetary benefit on account of this CO₂ emission reduction has been envisaged at present in this petition. However, any monetary benefit arising due to this estimated CO₂ emission reduction under Perform, Achieve & Trade (PAT) or any other such scheme will be passed on to the consumers as Non-Tariff Income (NTI).
- i) The detailed estimate of the proposed expenditure is shown in the table given below:

Table-6

Sl. No.	Particular	UoM	Each DISCOMs	Total for all 4 DISCOMs
A	Nos. of BLDC Fans proposed to be installed for a period of 5 years (FY 24-FY 28)	Nos.	500000	2000000
B	Cost of installing One BLDC Fan by dismantling the existing one Induction Fan (incl. GST)	Rs.	3416	-

Sl. No.	Particular	UoM	Each DISCOMs	Total for all 4 DISCOMs
C (50 % x B)	Total proposed Subsidy/ Incentive per BLDC Fan	Rs.	1708	-
C.1 (30% x B)	Total proposed Subsidy/ Incentive per BLDC Fan by Govt. of Odisha	Rs.	1025	-
C.2 (20% x B)	Total proposed Subsidy/ Incentive per BLDC Fan by way of Allowance as DSM expenditure in ARR	Rs.	683	-
D (A X C.2) /10 ⁷	Total Cost of Subsidy/ Incentive for BLDC Fan in ARR	Rs. in Cr.	34.16	137
E	*Expenditure towards Information, Education and Communication (IEC) and other expenses for implementation of the Scheme as DSM expenditure in ARR	Rs. in Cr.	3.75	15
F= D + E	Total DSM Expenditure to be allowed in ARR for a period of 5 Years (FY 24 to FY 28)	Rs. In Cr.	38	152
Total Subsidy / incentive to be Provided by Govt. of Odisha				
G (A X C.1) / 10 ⁷	Total cost of Subsidy/Incentive for BLDC Fan to be provided by GoO	Rs. In Cr.	51.24	205

- j) The customers will bear 50% of the cost of installation of one BLDC Fan, i.e., Rs. 1708, and the balance 50% will be provided as subsidy/ incentive. Out of the proposed subsidy/ incentive of Rs. 1708 per BLDC Fan, the Government of Odisha will bear 60%, i.e., Rs 1025 and the balance 40%, i.e., Rs. 683 shall be considered as DSM expenditure in the ARR of DISCOMs.
- k) DISCOMs have proposed Rs. 15 Cr. towards Information, Education and Communication (IEC) expenses and other related expenditures for implementation of the Scheme including activities like (i) design of website for demand aggregation, (ii) TV Spots, (iii) Media Advt., (iv) Standees, etc. at Divisions / Consumer Care Centers, printing on Bills, leaflets, etc., and (v) development and maintenance of mobile application.
- l) As explained in aforesaid Table-5, DISCOMs have proposed Rs.152 Cr. as the total DSM expenditure over five years for all four DISCOMs to consider in their ARR, out of which Rs. 137 Cr. for the replacement of 20,00,000 energy-

inefficient conventional Induction Fans with BEE 5 Star rated BLDC Fans (maximum 2 nos. per household) for domestic (Private) consumers and Rs. 15 Cr. towards Information, Education and Communication (IEC) expenses and other related expenditures for implementation of the Scheme.

- m) Department of Energy, Government of Odisha vide its Minutes of Meeting dated 10.08.2023 has agreed to finance up to 60% towards subsidy/incentive of the cost of replacement of conventional Fans with energy efficient BLDC Fans (maximum 2 nos. per household).
- n) This proposal for consideration of DSM expenditure as part of ARR of the respective DISCOMs is in line with the practice followed by other States. In this regard, relevant extracts from the Tariff Order of Tata Power Delhi Distribution Limited (TPDDL) for FY 2018-19 and the approval of Maharashtra Electricity Regulatory Commission (MERC) to Tata Power Company Ltd, Distribution for implementation of the BLDC Fan program under DSM has been submitted by the Petitioner.

7. The Respondent- Department of Energy, Government of Odisha has made the following submissions:

- a) The State Government has announced a new scheme, namely the Chief Minister's Energy Conservation Program (CMECP) to promote the use of energy-efficient appliances in the State. This scheme is primarily meant for reduction of energy consumption by promoting the usage of energy-efficient appliances in all Government establishments and residential households of the State. However, the proposed DSM program of the DISCOMs covers only the residential consumers. It will not cover Government establishments and ACs shall not be considered under the proposed DSM program. The Government of Odisha would bear the full cost of energy efficiency measures in Government facilities. A maximum of 2 nos. of Fans is to be allowed per domestic consumer under CMECP-Energy Efficiency Program (CMECP-EEP) and the potential expansion of the scheme will depend on the popularity of the program. This has been decided in the meeting held on 22.09.2023 under the Chairmanship of the Additional Chief Secretary, DoE, GoO.
- b) DSM incentive shall cover 50% of the cost of maximum 2 energy-efficient BLDC Fans per household. Government of Odisha will provide 30 % and the balance

20% is to be socialized in the ARR of the DISCOMs. However, the Government of Odisha will provide the incentive of 30% subject to the approval of the 20% to be recovered through the ARR of DISCOMs.

- c) The Fans are proposed to be procured through Energy Efficiency Services Limited (EESL) so as to get the benefits of economics of scale.
 - d) Government of Odisha fully supported the DSM proposal of the DISCOMs and there is sufficient budget provision for the CMECP-EEP scheme in the current year. The scheme is proposed to be implemented over a period of 5 years in a phased manner.
8. The Respondent- M/s SSPTPL has made the following submissions:
- a) The Respondent cited the example of the DSM program launched by BSES Rajdhani Power Limited (BRPL) and stated that BRPL in partnership with leading BLDC Fan manufacturers like R R Kabel Ltd, Halonix Technologies Private Ltd and Atomberg Technologies Private Ltd has taken up the DSM Scheme in New Delhi. The scheme enables the consumers residing in South and West Delhi, to either exchange their old Fans with the new BEE 5-star rated super energy efficient 1200 mm BLDC Fans or can directly purchase them. The lowest price provided in this scheme is Rs. 1545/- with replacement and Rs. 1645/- without replacement. But in the present case, the price offered by DISCOMs of Odisha is Rs. 3416/- (including Supply, Service & transportation costs) which is higher than that of BRPL in New Delhi.
 - b) DISCOMs should go for competitive bidding to arrive at the buyback price of the existing Induction Fans rather than considering Rs.200/- for the same. Thereafter they may file a petition with a detailed price bifurcation and implementation plan for consideration by the Commission.
 - c) It is a mandate for DISCOMs to implement DSM in the state as per the OERC (Demand Side Management) Regulations, 2011. If the subsidy scheme is to be offered to the consumers, then the same should be borne by the Government instead of recovering it through ARR of the respective DISCOMs.
 - d) TPCODL & TPWODL are making huge annual loss due to non-implementation of DSM for Domestic LT consumers, Agro and Agro Industries and MSME LT consumers. Therefore, DISCOMs may spontaneously implement DSM on its own

or through budgetary support from the State Government so as to minimize the loss and improve reliability.

- e) DISCOMs have already been assigned with the responsibility for implementation of DSM in their area of operation. They can disseminate information about the scheme through digital advertisements, electricity bills, standees at divisional/sectional offices, etc. and such expenditure has already been claimed by them in their ARR. Therefore, additional claim of Rs.15 Cr. towards information, education, and communication expenses for DSM implementation in ARR is not acceptable and should not be allowed by the Commission. However, incentives may be provided subject to successful implementation of the scheme.
 - f) MSME consumers and agricultural consumers are not considered in the present DSM Petition although various energy efficiency technologies/ products and appliances are available for such categories of consumers. A proven technology like the Automatic Power Factor Correction Panel (APFC) Panel for correction of the power factor of industrial consumers has not been considered by the DISCOMs. Implementation of such technology would reduce the demand of industrial consumers by 5-10% thereby creating a surplus of 200 MW in the system which could be supplied to the EHT consumers.
 - g) OERC may direct the DISCOMs for considering the proposal of M/s SSPTPL for implementation of DSM project on a pilot basis and provide necessary technical and logistic support to implement the same.
9. The other Respondents GRIDCO & OPTCL did not have objection against approval of the energy efficiency Program for domestic consumers for promotion of DSM in the State of Odisha and have requested the Commission to take a prudent view in this regard.
10. The DISCOMs in their Rejoinder to the issues raised by M/s SSPTPL, has submitted that:
- a) The lower cost of BLDC Fans provided by BRPL Delhi may be attributed to the companies having established channel partners across Delhi. However, the associated cost for transportation, installation, and replacement in Odisha is likely to be on the higher side as compared to Delhi due to its vast geography. Further, considering the experience of EESL in procurement and implementation of programs like LED bulbs across Odisha in the past, DISCOMs have considered the price offered by EESL as the base price. In any case, DISCOMs have proposed the implementation partner to be selected based on competitive bidding.

- b) In response to the query regarding the limitation of 2 Fans per household only, the DISCOMs have submitted that the Scheme involves cash Subsidy by the State Government. Considering the Subsidy available and to maximize the benefit of the Scheme, the subsidized Fans per domestic (private) consumer have been restricted to 2 nos. only. Any procurement by a consumer beyond 2 nos. of BLDC Fans shall be beyond the purview of this Scheme, which essentially envisages 50% of the cost being subsidized with a 30% subsidy being provided by the State Government and the balance 20% by the DISCOMs, recoverable through respective ARR.
 - c) In response to objection of M/s SSPTPL to not allow the DSM expenditure in the ARR, the DISCOMs submitted that the proposed DSM expenditure as part of the ARR of the respective DISCOMs is in line with the practice followed by other States such as New Delhi and Maharashtra.
 - d) In response to the objection of M/s SSPTPL regarding the expenditure of Rs. 15 Cr. towards information, education, and communication expenses for implementation of the scheme, the DISCOMs have submitted that the success of any program largely depends on effective communication/ consumer awareness which needs specific budget provision. Further, this expense is just 2% of the appliance cost of Rs. 683.2 Cr. and the average annual expenditure for each DISCOM works out to Rs. 75 Lakhs which is quite reasonable. Moreover, it has been proposed in the Petition to restrict this allowance in the ARR as per actual.
 - e) Since APFC will benefit only a limited set of customers (i.e., Industrial), therefore, it can be considered in the next DSM program. The various other equipment and appliances can be considered in the future under the DSM program based on the success of the BLDC Fan as it covers both Rural and Urban customers.
11. Heard the Petitioner and Respondents through hybrid mode. The Commission has considered their arguments and written submissions to the extent those are relevant to the matter. The proposal of DISCOMs for replacement of existing inefficient Fans by BLDC Fans is one of the initiatives taken up under DSM for saving in consumption of electricity. The Commission observes the following:
- a) The Chief Minister's Energy Conservation Program (CMECP) aims at reduction of energy consumption by promoting the usage of energy efficient appliances in

all Government establishments and residential households of the State. However, the proposed DSM program of the DISCOMs covers the residential consumers only.

- b) The DISCOMs have proposed for replacement of 20,00,000 induction Fans with BEE 5 Star rated BLDC Fans (5,00,000 nos. of Fans in the operating area of each DISCOM) for domestic consumers limiting supply of 2 nos. of Fans per household. The estimated cost of installation of one BEE 5 Star rated BLDC Fan for replacement of the existing induction Fan is expected to be about Rs.3416/- (Incl. GST).
- c) The conventional induction-based Fan consumes electricity of about 75 Watts while a BEE 5 Star rated BLDC Fan consumes about 28 Watts. The estimated annual energy savings due to use of a BEE 5 Star rated BLDC Fan in place of conventional induction Fan is estimated to be 257 units and annual saving in cost would be Rs.1425/- considering 15 hours of run per day and average cost of electricity as Rs.5.5 per unit. Accordingly, the cost of Fan (Rs.3416/-) is likely to be recovered in less than three years (i.e. $\text{Rs.3416/-} / \text{Rs.1415/-} = 2.4$ years). As a result, the estimated cumulative annual energy saving through participating consumers in this DSM program for 20,00,000 nos. of Fans would be about 515 MUs per year and annual effective saving at consumers' end would be about Rs.283 Cr. Further, it would cause a reduction of CO₂ emission by about 4.2 Lakh tons per annum (considering conversion factor of 0.82 kg/kWh).
- d) The power demand and energy requirement will correspondingly be reduced considering the T&D Loss target of DISCOMs and Average Power Purchase Cost (APPC) of Rs. 3.1034 per unit (as per FY 2023-24). GRIDCO can avoid purchase of 646 MUs of energy per year, resulting in a savings of Rs.200 Cr. in power purchase Cost.
- e) 50% of the cost of installing one BLDC Fan i.e. about Rs.1708/- including cost of dismantling of the existing Induction Fan would be borne by the customers and the balance 50% would be provided as subsidy/ incentive. The proposed subsidy/ incentive per BEE 5-star BLDC Fan is Rs. 1708/-, out of which the Government of Odisha will bear 60%, i.e., Rs 1025/- and the balance 40%, i.e., Rs. 683/- will be reflected as DSM expenditure in the ARR of DISCOMs.

- f) All the four DISCOMs have cumulatively proposed an expenditure of Rs.152.00 Cr. to be allowed in ARR for the DSM scheme over a period of five years, i.e. from FY 2023-24 to FY 2027-28. Out of the proposed DSM expenditure, Rs. 137.00 Cr. is proposed for the replacement of 20,00,000 energy inefficient conventional induction Fans with BEE 5 Star rated BLDC Fans limiting supply of 2 nos. of Fans per household for domestic consumers and Rs.15 Cr. towards promotion covering dissemination of information about the scheme including digital advertisement, Education and Communication expenses and other related expenditures for implementation of the Scheme. The estimated annual expenditure per DISCOM will be Rs.2.1 Cr for FY 2023-24 and Rs.8.9 Cr. for each subsequent financial years up to FY 2027-28. Total subsidy/incentive to be provided by Government of Odisha for the DSM scheme covering BLDC Fan is about Rs.205 Cr. The details are summarized in the table below:

Table-7

Particulars	FY 23-24	FY 24-25	FY 25-26	FY 27-28	FY 28-29	Total
Total BLDC Fans for four DISCOMs	80,000	4,80,000	4,80,000	4,80,000	4,80,000	20,00,000
DSM expenditure to be allowed in the ARR of each DISCOM	2.12	8.95	8.95	8.95	8.95	37.92
Total Expenditure to be allowed in the ARR of all four DISCOMs	8.48	35.80	35.80	35.80	35.80	151.68
Energy savings (MUs) @ 257 Units/Fan per annum	20.56	123.36	123.36	123.36	123.36	514.00

- g) DISCOMs have requested to allow the true-up of actual DSM expenditure for the current year and budget estimate for the ensuing year in their respective ARR.
- h) The Respondent, Department of Energy, Government of Odisha has fully supported the DSM proposal of the DISCOMs and there is adequate budget provision in the current financial year for the proposed scheme. However, Government of Odisha will provide incentives/subsidy of 30% subject to approval of balance 20% of the cost to be recovered through ARR of DISCOMs. Further, Government of Odisha requested the Commission for approval of the same. The

other Respondents, M/s GRIDCO & M/s OPTCL did not have any objections against the aforesaid scheme.

12. The relevant statutory provisions in relation to Demand Side Management are quoted below:

Regulation 2.1(vi) of the OERC (Demand Side Management) Regulation, 2011:

Demand Side Management means the actions of a Distribution Licensee, beyond the customer's meter, with the objective of altering the end-use of electricity - whether it is to increase demand, decrease it, shift it between high and low peak periods, or manage it when there are intermittent load demands - in the overall interests of reducing Distribution Licensee costs."

Regulation 14 of the OERC (Demand Side Management) Regulation, 2011:

"14. Mechanism for Cost Recovery

- 14.1. Distribution Licensee shall identify the net incremental costs, if any, associated with planning, design and implementation of programmes*
- 14.2. Distribution Licensee may propose methodology for recovery of net incremental costs through tariff or any other mechanism*
- 14.3. In order to qualify for cost recovery, each program must be
 - i. Approved prior to implementation*
 - ii. Implemented in accordance with the approved program plan and*
 - iii. Implemented cost effectively**
- 14.4. Distribution Licensee shall provide all necessary assistance to the Commission, or third party assigned by the Commission in undertaking Evaluation Measurement and Verification of DSM programmes implemented by it.*
- 14.5. The Commission may direct the Distribution Licensee to undertake DSM programmes that may not be cost effective but is highly beneficial to the society. The Commission will make available resources for such project."*

13. We are of the opinion that the DSM initiatives in distribution utilities are a cost-effective tool to reduce the demand thereby leading to less drawl of power generated utilizing fossil fuels and thereby mitigating associated environmental and climate concerns. Further, reduction in demand in high loss-prone areas also helps in the reduction of AT&C loss which in turn lowers the overall cost of operations, and improves the reliability of power supply.
14. In view of the above scenario, provisions and considering the submissions of the parties, the Commission hereby accords in-principle approval of the energy efficiency program for domestic consumers for promotion of DSM scheme in form of replacement of existing conventional induction Fans by BLDC Fans as proposed by all four DISCOMs and approved by the Government of Odisha in the next five years along with the following directives:

- i. All the four DISCOMs will replace 20,00,000 induction Fans with BEE 5 Star rated BLDC Fans (5,00,000 nos. of Fans in the operating area of each DISCOM) for domestic consumers limiting supply of 2 nos. of Fans per household.
- ii. The DISCOMs may procure the BLDC Fans through a transparent competitive bidding process so that the cost of the Fans can be further reduced. The procurement may be done collectively by all four DISCOMs through a centralized contract group.
- iii. DISCOMs, in consultation with the Department of Energy, Government of Odisha, shall devise the modalities for the effective implementation of the subject DSM scheme, including the dismantling & installation charges, transportation Charges, buyback price/ method and procedure for release of subsidy the by State Government. After finalization of such modalities and fixation of charges, the selling price of the Fans shall be arrived at with openness. The DSM incentive shall cover 50% of the cost (so derived) of maximum 2 energy-efficient BLDC Fans per household, out of which 30% cost of the scheme will be borne by Government of Odisha and balance 20% will be recovered through ARR of DISCOMs. However, actual DSM expenditure for the respective FY will be allowed at the truing up stage basing upon the audited accounts.
- iv. The old induction Fans after dismantling shall be deposited with the respective DISCOMs and necessary steps will be taken by DISCOMs for its scraping. The scrap value of dismantled Fans shall be treated as Non-Tariff Income of the DISCOMs and accordingly, adjusted against ARR of the respective DISCOM.
- v. For effective implementation of DSM measures, an online portal shall be developed by the DISCOMs along with the detailed guidelines approved by the State Government. The progress of the DSM Schemes is required to be monitored rigorously for effective implementation and for achieving the desired goal.
- vi. DISCOMs should monitor, update/ maintain the progress status of implementation, which should be available on their website for the information of all concerned. Reports on the progress of this DSM plan and expenses incurred on implementation shall be submitted by each DISCOM every six months to the Commission. The report shall cover the actual expenses, achievement, outcomes, constraints & difficulties faced, conclusions, recommendations, lessons learned, and way forward.

- vii. The Government of Odisha may release subsidy/ incentive in phases considering the progress of actual installation of BLDC Fans by DISCOMs preferably in each six months. If the results are encouraging, additional budgetary support may be provided for execution of ensuing DSM Schemes.
 - viii. DISCOMs shall explore the possibility of recovery of the cost of Fans in installments from the consumers.
 - ix. To maximize the benefits, the DISCOMs may also plan to extend the proposed DSM scheme to encourage voluntary participation of more consumers in rural as well as urban areas with objective to save electricity and reduce carbon footprint. Basing upon success of the scheme, the potential expansion of the scheme can be planned by DISCOMs.
 - x. DISCOMs shall identify other potential areas for implementation of DSM scheme in different sectors like domestic, commercial, and industry including the suitable business model, if any, and submit the same along with the action plan for consideration by the Commission.
 - xi. The DISCOMs may explore DSM scheme like Automatic Power Factor Correction (APFC) panels for small/medium industrial consumers to reduce their energy drawl.
 - xii. Any monetary benefit arising due to PAT or any such scheme (arising due to reduction in carbon emission) shall be passed on to the consumers as Non-Tariff Income.
15. With the above directions and observations, the case is disposed of.

Sd/-
(S. K. Ray Mohapatra)
Member

Sd/-
(G. Mohapatra)
Member

Sd/-
(S. C. Mahapatra)
Chairperson