<u>Uttar Pradesh State Energy Conservation Award 2018</u> <u>Check-lists</u>

Sr. No	Requirement of Supporting Documents	Yes	No	Remark
1	Is Award questionnaire proforma-I filled in all aspects?			
2	Is Award questionnaire proforma-II filled in all aspects ?			
3	Copy of Certificate of ISO 50001 is attached			
4	Write-UP as desired is attached			
5	Month wise summarised details for Electricity & Thermal Consumption is attached			
6	Copy of Certificate received from Supplier or any reputed test lab for Calorific Value of Fuel is attached			
7	Copy of electricity bill is attached			
8	List of officials working in the Energy Efficiency Cell attached			
9	Other Innovative measures implemented for reducing energy consumption is attached			
10	Have you registered on UPSDA website www.upsavesenergy.com & filled relevant details			
11	Whether details of Renewable Energy used ia attached (Solar PV System, Solar Thermal System, Bio Energy System etc.)			

I, do hereby declar Pradesh State Energy Conservation Award-2018) and in the enclosed has been concealed therein. I am well aware of the fact that if the info application shall be rejected.	, ,
Prepared By:	Approved By:
(Signature) Name Designation Mobile No.	(Signature) Name Designation Mobile No.
Organization Seal	Organization Seal
Date:	Place:

UTTAR PRADESH STATE ENERGY CONSERVATION AWARD - 2018 "Industry"

"Award Questionnaire : Proforma- I"

	r Name: r Code:	□ Industry General Category (having connected load 1MW and above, except Therm □ Industry General Category (having connected load less than 1MW, except Therma □ IN-A1 □ IN-B1		• .				
1	Name of							
2	The Sect	or* to which unit's nomination should be considered						
3	(including with mob	e address of Unit's location g Chief Executive's name & designation) ile,telephone,fax nos. & e-mail ls to be submitted)						
4	Year of E	stablishment						
5		esignation, address, mobile, telephone,fax nos. & e-mail of responsible person who could cted in connection with the application for Award (All details to be submitted)						
6		esignation, address, mobile, telephone,fax nos. & e-mail of Certified Energy Manager who a designated as Energy Manager of the plant						
		ISO 50001 Certified			Yes / No			
7		ease indicate certification date and attached a copy of certificate Establishment / Unit having Energy Efficiency Cell	Yes / No					
		ease provide the list of officials working in the Cell						
Sector 1 2 3 4 5 6 7	Producti	Production and capacity utilization details						
8	Year	Products manufactured (Please list all the major products)	Units (Please specify)	Installed Capacity (a)	Actual Production (b)	% Capacity Utilisation (b/a) x 100		
	2016-17							
	2017-18							
	Energy (Consumption details	2016	6-17	2017-18			
	9.1	Electricity Consumption Units (Lakhs kWh/ year)						
	9.1.1	Purchased Electricity (Lakhs kWh/ year)						
	9.1.2	Own Generation (Lakhs kWh/ year)						
	9.1.2.1	Through DG sets (Lakhs kWh/ year)						
9	9.1.2.2	Through Solar PV System (Lakhs kWh/ year)						
	9.1.2.3	Through Steam and/or gas turbine route (please specify)(Lakhs kWh/ year)						
	9.1.2.4	Electricity supplied to the grid/ others (specify) (Lakhs kWh/ year)						
	9.1.3	Own generated electricity consumption within the plant (Lakhs kWh/ year) [Sr. no. 9.1.2.1 + Sr. no. 9.1.2.2 + Sr. no. 9.1.2.3 - Sr. no. 9.1.2.4]						

9.1.4 (purchased + own generated electricity consumption within the plant) (Lakhs kWh/year) (Sr. no. 9.1.1 + Sr. no. 9.1.3) 9.1.5 Total Electricity Consumption in MTOE(Metric tonne of oil equivalent) [{(Sr. No 9.1.4)*860} / 100] Note:1. It should not include fuel used for self power generation of electricity. 2. Also it should not include fuel as a Raw Material. 3. For computing fuel consumption from a cogeneration plant, the following relation may be used: Fuel consumption for process heating, kg/year= (steam quantity used for process bielier feed water enthalpy, kcal/kg)) / (Boiler efficiency xGCV of fuel, kcal/kg). For different steam pressure extractions, the above relation to be repeated 9.2 Thermal Energy Consumption for process heating 9.2.1 Coal 9.2.1.1 Quantity used for process heating (tonnes/ year) 9.2.1.2 Weighted Av. Gross Calorific value (GCV) (kCal/ kg) 9.2.1.3 [Total heat value of coal used (Million kCal/year) [(Sr. no. 9.2.1.1) x (Sr. no. 9.2.1.2)]/1000 9.2.2 Other purchased solid fuels (pl. specify)provide data on similar lines as indicated under 'Coal' 9.2.3 Furnace Oil (FO) 9.2.3.1 Quantity used for process heating (kL/ year)	r process heating, kg/year(enthalpy of steam, kcal/kg -
Note:1. It should not include fuel used for self power generation of electricity. 2. Also it should not include fuel as a Raw Material. 3. For computing fuel cons being used from a cogeneration plant, the following relation may be used: Fuel consumption for process heating, kg/year= (steam quantity used for process boiler feed water enthalpy, kcal/kg)) / (Boiler efficiency xGCV of fuel, kcal/kg). For different steam pressure extractions, the above relation to be repeated 9.2 Thermal Energy Consumption for process heating 9.2.1 Coal 9.2.1.1 Quantity used for process heating (tonnes/ year) 9.2.1.2 Weighted Av. Gross Calorific value (GCV) (kCal/ kg) 9.2.1.3 Total heat value of coal used (Million kCal/year) [(Sr. no. 9.2.1.1) x (Sr. no. 9.2.1.2)]/1000 9.2.2 Other purchased solid fuels (pl. specify)provide data on similar lines as indicated under 'Coal' 9.2.3 Furnace Oil (FO) 2016-17	r process heating, kg/year(enthalpy of steam, kcal/kg -eated
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9 9.2.3 Furnace Oil (FO) 2016-17	
5.2.6 1. amade on (1.6)	
9.2.3.1 Quantity used for process heating (kL/ year)	2017-18
9.2.3.2 Av. GCV (kCal/ kg)	
9.2.3.3 Av. Heat value (kCal/ litre) 0.95 x (Sr. no. 9.2.3.2)	
9.2.3.4 Total heat value of furnace oil (Million kCal/year) [(Sr. no. 9.2.3.1) x (Sr.no. 9.2.3.3)]/1000	
9.2.4 Diesel/ Other oils (Purchased) (if any)Provide data on similar lines as indicated	
9.2.5 Natural Gas	
9.2.5.1 Pressure of Gas	
9.2.5.2 Quantity used for process heating (Lakh m³/ year)	
9.2.5.3 Av. GCV (k Cal/ m³) at supplied pressure	
9.2.5.4 GCV (k Cal/ m³) at STP/NTP	
9.2.5.5 Quantity of Gas at STP/NTP	
9.2.5.6 Total heat value (Million kCal/year) [Sr. no. 9.2.5.2 x Sr. no. 9.2.5.3]/10	
9.2.6 Any other purchased gas (Say LPG etc.) used as fuel Provide data on similar lines as indicated under 'natural gas'	
9.2.7 Gas generated as byproduct/ waste in the plant and used as fuel	
9.2.7.1 Name	
9.2.7.2 Quantity (Lakh m³/ year)	
9.2.7.3 Av. GCV (kCal/ m³)	
9.2.7.4 Total heat value (Million kCal/year) [Sr. no.9.2.7.2 x Sr. no. 9.2.7.3]/10	1

	9.2.8	Solid waste generated in the plant and used as fuel							
		Name							
	9.2.8.2	Quantity (tonnes/ year)							
	9.2.8.3	Weighted Av. Gross Calorific value (GCV) (kCal/ kg)							
		Total heat value used (Million kCal/year)							
		[Sr. no. 9.2.8.2 x Sr. no. 9.2.8.3]/1000							
_		Liquid effluent / waste generated in the plant and used a	as fuel	l		l			
9		Name							
		Quantity (kL/ year)							
		Av. GCV (kCal/ kg)							
		Av. Heat value (kCal/ litre)							
		{Sp. gravity x I(iii)}							
		Total heat value ,MkCal/year (Million kCal/year)							
		[Sr. no 9.2.9.2 x Sr. no 9.2.9.3]/1000							
		-							
	Total the	rmal energy consumption in Million kCal/ year			0				
10	10.1	Sr. no 9.2[9.2.1.3 +9.2.3.4+9.2.4.6+9.2.5.6+9.2.7.4+9.2.8.4	+ etc.]						
10		-							
	10.2	Total Thermal energy consumption in MTOE per year [(Sr.no 10.1) / 10]						
	Achieven	nent of energy savings from implementation of new Ene	ergy Efficiency Projects.						
		Amusal Flactuinity Covins			Annual Thermal Energy Savings				
		Year	Annual Electricity Saving	Coal FO/LSHS/HSD/RFO		Gas Total			
			(Lakh kWh)				Total		
				(Metric Tonnes)	(kL)	(Lakh m³)	(MkCal)		
11									
		2017-18	Annual Energy Savings		•	•	•		
			(Rs. Lakhs)						
			One time investment						
			(Rs. Lakhs)						
	Enoravo	onsumption per unit production of 'major energy consu	ming product(s)' and accour	ting of onorgy concur	nntion				
	Lileigy C	onsumption per unit production or major energy consu	ming product(s) and accoun		приоп				
				Specific Energy					
			Specific Thermal Energy	Consumption In		Specific Thermal			
		Specific Electrical Energy Consumption In	Consumption In Million	MToE/tonne**	Energy	Energy			
12		kWh/tonne**	kCal/tonne**	[Total Electrical &	Consumption	Consumption	Specific Energy Consumption		
	Year		[Total Thermal Energy	Thermal Energy	Reduction over	Reduction over	Reduction over 2016-17		
		[Total Electrical Energy Consumption in kWh/Actual	Consumption in Million	Consumption in	2016-17	2016-17	[(a) (iii) - (b) (iii)]/ (a) (iii)]		
		Production in tonne] (i)	kcal/Actual Production in	MToE/Actual		[(a) (ii) - (b) (ii)]/ (a)	[(-) () ()]		
			tonne] (ii)	Production in		(ii)]			
			torriej (ii)	tonne**1 (iii)	(1)	(,1			
	2015 15			TOTHIC I (III)					
(a)	2016-17								
(b)	2017-18								

MTOE=Metric Tonne of Oil Equivalent

1 kWh = 860 kCal

1 MTOE =10⁷ kCal

1 Mkcal = 10⁶ kCal

SUMMARY SHEET

	Sector Name Sector Code									
	Specific Energy Consumption(SEC) reduction during the period 2016-2018									
13	13.1	Year	Product	Specific Electrical Energy Consumption In kWh/tonne** [Total Electrical Energy Consumption in kWh/Actual Production in tonne]	Energy Consumption In Million kCal/tonne** [Total Thermal Energy Consumption in Million kcal/Actual Production in	Specific Energy Consumption In MToE/tonne** [Total Electrical & Thermal Energy Consumption in MToE/Actual Production in tonne**]	Specific Electrical Energy Consumption Reduction over 2016-17 (%)	Specific Thermal Energy Consumption Reduction over 2016-17 (%)	Specific Energy Consumption Reduction over 2016-17 (%)	
		2016-17			tonnel					
		2017-18								
		Absolute sav	ing and its percer	ntage over previous		nption		1		
	13.2	Belect. Saving (Fuel) Saving (Million kCal) in 2017-18		Elect.Consumption (lakh kWh) in 2016-17 Thermal Energy (Fuel) Consumption (Million kCal) in 2016-17		% Elect.Saving (savings achieved/ electricity consumption of previous year)		% Thermal Energy (Fuel) Saving (savings achieved/ thermal energy consumption of previous year)		
İ		(i)	(ii)	(iii)	(iv)	(i) / (iii	(i) / (iii) x 100		(ii)/ (iv) x 100	
		(7	(-)	()	()	()-(
	Details	s of Innovativ	e energy conserva	ation measures adop	ted; if any					
14										
15	Details	S OF Reflewad	ie Energy usea (S	olar PV System, Sola	ir Thermai System,	BIO Ellergy System	retc.); if any			
	Have y	ou registered	d on UPSDA webs	ite www.upsavesene	rgy.com & filled re	levant details; if YE	S then please provi	de User ID along wi	th details	
16				•	•	·	· ·			
	I									
		nation				Designation				
	Organization Seal									

Detailed Information of Energy Efficiency Projects UTTAR PRADESH STATE ENERGY CONSERVATION AWARD - 2018 " Award Questionnaire : Proforma-II "

	T	T						
	Name of the Establishment							
2	Please provide details in the following format on major ener year 2017-2018 giving energy savings achieved.	gy efficiency improvement projects/ measure	es including in-house l	R&D efforts, technolo	ogy innovation, energy s	substitution and rene	ewable energy system	s commissioned during the
	I			Achievement	t of Annual energy saving	gs in 2017-18		
			Electrical Energy		Thermal Energy			Investment incurred on the
		Energy Conservation Project description	Energy Conservation Project description	Gas (lakhs Nm³)	Total Thermal Energy (M kCal)	Total savings (Rs. Lakhs)	project (Rs. Lakhs)	
		(i) Please list of Energy Efficiency the projects (ii) Please mention the achievement of energy					T	
	Energy Conservation projects							
	•	* Delete or add Thermal Energy as the case	may be					
	I, do hereby do of my knowledge & belief and nothing has been concealed therein	eclare that the information given in the Award Qu I am well aware of the fact that if the information					ents is true to the best	
	Prepared By:			Approved By:				
	(Signature)			(Signature)				
	Name			Name				
	Designation							
	Mobile No.			Mobile No				
	Organization Seal			Organization Seal				
	Date: DOCUMENTS ATTACHED: ** Mandatory Supporting documents			Place:				

4. Relevant documents (other then above mentioned documents; if any) needs to submit.

3. Copy of Certificate received from Supplier or any reputed test lab for Calorific Value of Fuel is attached

1. For Electricity & Thermal Consumption: Month wise summarised details to be attached

2. Copy of ISO 50001 Certificate.

5. Short falling of any documents create the causes of disqualification from award 2018.

6. Details given in Proforma-I (under section Achievement of energy savings from implementation of new Energy Efficiency Projects.) should be same in proforma-II.

UTTAR PRADESH STATE ENERGY CONSERVATION AWARD - 2018 "Write-up"

Dear Participants,

We request you to submit us the following as additional information:

A brief write-up of the unit / establishment in MS Word (not in PDF) in a pen drive/ CD containing the soft copy of the same. The write up can also be sent on upseca.upsda@gmail.com. The write-up to contain the information on Unit Profile, Energy Consumption year wise and Energy Conservation Achievements (highlighting the projects implemented during the year 2017-18), Environment and Safety. Please include the specific mention of other Innovative measures implemented for reducing energy consumption. Please also Include Energy management policy declared by the top management of your organization.

$\underline{Annexure - B}$

Evaluation Strategy

Evaluation methodology

Sr. No.	Evaluation Criterion	Max.100 Marks			
1.	Specific Energy Consumption Reduction (% Reduction during 2017-18 Over 2016-17)				
2.	ISO 50001 Certification	10 marks			
3.	Energy Efficiency Cell	10 marks			
	a)One number of Certified Energy Auditor(EA) / Energy Manager(EM)	5 marks			
	b)Two professional (including EM/EA)	7 marks			
	c)More than two professional (including EM/EA)	10 marks			
4.	Use of Renewable Energy (Solar PV System, Solar Thermal System, Bio Energy System etc.)	20 marks			
I)	Solar PV System	10 marks			
	a) Solar PV System capacity in between 75% to 100% of Total connected load	10 marks			
	b) Solar PV System capacity in between 50% to 75% of Total connected load	08 marks			
	c) Solar PV System capacity in between 25% to 50% of Total connected load	05 marks			
	d) Solar PV System capacity less than 25% of Total connected load	02 marks			
II)	Solar Thermal System	05 marks			
III)	Bio Energy System	05 marks			
5.	Registration ID on www.upsavesenergy.com & relevant details	05 marks			

Note: The above evaluation and weightage criterion is common for all the entities. However, in case of any peculiarity found in the application of above evaluation criteria, the Awards Committee reserves the right to modify the criteria, which shall be uniformly applied to all the entities