Uttar Pradesh State Energy Conservation Award 2018

Check-lists

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 declare that the information given in the Award Questionnaire (Uttar Pradesh State Energy Conservation Award-2018) and in the enclosed documents is true to the best of my knowledge & belief and nothing has been concealed therein. I am well aware of the fact that if the information given by us is proved false / not true at any point of time, our application shall be rejected.

Prepared By:

(Signature)
Name ……..
Designation.....……
Mobile No. ……..

Organization Seal ……

Date:

Approved By:

(Signature)
Name ……..
Designation.....……
Mobile No. ……..

Organization Seal ……

Place:

UTTAR PRADESH STATE ENERGY CONSERVATION AWARD - 2018

"Sugar Industry"

"Award Questionnaire : Proforma- I"

Sector Name: Sugar Industry **Sector Code: SI**

1	Name of the Unit	
2	The Sector* to which unit's nomination should be considered	NOT APPLICABLE
3	Complete address of Unit's location (including Chief Executive's name & designation) with mobile,telephone,fax nos. & e-mail (All details to be submitted)	
4	Year of Establishment	
5	Name, designation, address, mobile, telephone,fax nos. & e-mail of responsible person who could be contacted in connection with the application for Award (All details to be submitted)	
6	Name, designation, address, mobile, telephone,fax nos. & e-mail of Certified Energy Manager who has been designated as Energy Manager of the plant	
7	Whether ISO 50001 Certified	Yes / No
	If Yes; Please indicate certification date and attached a copy of certificate	
	Whether Establishment / Unit having Energy Efficiency Cell	Yes / No
	If Yes; Please provide the list of officials working in the Cell	

8 Production and capacity utilization details

Year	Products manufactured (Please list all the major products)	Units (Please specify)	Plant Producation Operating Days	Installed Capacity (a)	Actual Production (b)	% Capacity Utilisation (b/a) x 100
2016-17						
2017-18						

Remark : **Please state the production as well as Energy Consumption; if your units also produce distillery products.**

9	**Energy Consumption details**		**2016-17**	**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)***		
	9.1.2.2	***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	**9.1.4**	**Total consumption of electricity** (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 for process heating in case of steam being used from a cogeneration plant , the following relation may be used: Fuel consumption for process heating, kg/year= (steam quantity used for process heating, kg/year(enthalpy of steam, kcal/kg - 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**	**2016-17**	**2017-18**
	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**	**2017-18**
	9.2.3.1	Quantity used for process heating (kL/ year)		
	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**		
	9.2.5	**Natural Gas**		
	9.2.5.1	Pressure of Gas		
	9.2.5.2	Quantity used for process heating (Lakh m^3/ year)		
	9.2.5.3	Av. GCV (k Cal/ m^3) at supplied pressure		
	9.2.5.4	GCV (k Cal/ m^3) 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 m^3/ year)		
	9.2.7.3	Av. GCV (kCal/ m^3)		
	9.2.7.4	Total heat value **(Million kCal/year) [Sr. no.9.2.7.2 x Sr. no. 9.2.7.3]/10**		

9	**9.2.8**	***Solid waste generated in the plant and used as fuel for example: Bagasse***		
	9.2.8.1	Name_____		
	9.2.8.2	Quantity (tonnes/ year)		
	9.2.8.3	Weighted Av. Gross Calorific value (GCV) (kCal/ kg)		
	9.2.8.4	Total heat value used **(Million kCal/year)** **[Sr. no. 9.2.8.2 x Sr. no. 9.2.8.3]/1000**		
	9.2.9	***Liquid effluent / waste generated in the plant and used as fuel***		
	9.2.9.1	Name_____		
	9.2.9.2	Quantity (kL/ year)		
	9.2.9.3	Av. GCV (kCal/ kg)		
	9.2.9.4	Av. Heat value (kCal/ litre) {Sp. gravity x I(iii)}		
	9.2.9.5	Total heat value ,MkCal/year **(Million kCal/year)** **[Sr. no 9.2.9.2 x Sr. no 9.2.9.3]/1000**		
10	**Total thermal energy consumption in Million kCal/ year**		**0**	
	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.]		
	10.2	**Total Thermal energy consumption in MTOE per year [(Sr.no 10.1) / 10]**		

11 — Achievement of energy savings from implementation of new Energy Efficiency Projects.

Year	Annual Electrical Energy Saving (Lakh kWh)	Annual Thermal Energy Savings				
		Coal (Metric Tonnes)	Bagasse (Metric Tonnes)	FO/LSHS/HSD/RFO (kL)	Gas (Lakh m^3)	Total (MkCal)
2017-18						
	Annual Energy Savings (Rs. Lakhs)					
	One time investment (Rs. Lakhs)					

12 — Energy consumption per unit production of 'major energy consuming product(s)' and accounting of energy consumption

	Year	Specific Electrical Energy Consumption In kWh/tonne** [Total Electrical Energy Consumption in kWh/Actual Production in tonne] (i)	Specific Thermal Energy Consumption In Million kCal/tonne** [Total Thermal Energy Consumption in Million kcal/Actual Production in tonne] (ii)	Specific Energy Consumption In MToE/tonne** [Total Electrical & Thermal Energy Consumption in MToE/Actual Production in tonne**] (iii)	Specific Electrical Energy Consumption Reduction over 2016-17 [(a) (i) - (b) (i)]/ (a) (i)]	Specific Thermal Energy Consumption Reduction over 2016-17 [(a) (ii) - (b) (ii)]/ (a) (ii)]	Specific Energy Consumption Reduction over 2016-17 [(a) (iii) - (b) (iii)]/ (a) (iii)]
(a)	2016-17						
(b)	2017-18						

MTOE=Metric Tonne of Oil Equivalent

1 kWh = 860 kCal

1 MTOE =10^7 kCal

1 Mkcal = 10^6 kCal

SUMMARY SHEET

Sector Name: Sugar Industry **Sector Code: SI**

13	13.1	**Specific Energy Consumption(SEC) reduction during the period 2016-2018**							
		Year	**Product**	**Specific Electrical Energy Consumption In kWh/tonne** [Total Electrical Energy Consumption in kWh/Actual Production in tonne]**	**Specific Thermal Energy Consumption In Million kCal/tonne** [Total Thermal Energy Consumption in Million kcal/Actual Production in tonne]**	**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							
		2017-18							
	13.2	**b.**	**Absolute saving and its percentage over previous year energy consumption**						
		Elect. Energy Saving (Lakh kWh) in 2017-18	**Thermal Energy (Fuel) Saving (Million kCal) in 2017-18**	**Elect.Energy Consumption (lakh kWh) in 2016-17**	**Thermal Energy (Fuel) Consumption (Million kCal) in 2016-17**	**% Elect.Energy Saving (savings achieved/ electricity consumption of previous year)**		**% Thermal Energy(Fuel) Saving (savings achieved/ thermal energy consumption of previous year)**	
		(i)	**(ii)**	**(iii)**	**(iv)**	**(i) / (iii) x 100**		**(ii)/ (iv) x 100**	
14	**Details of Innovative energy conservation measures adopted ; if any**								
15	**Details of Renewable Energy used (Solar PV System, Solar Thermal System, Bio Energy System etc.); if any**								
16	**Have you registered on UPSDA website www.upsavesenergy.com & filled relevant details; if YES then please provide User ID along with details**								

I _____, do hereby declare that the information given in the Award Questionnaire (Uttar Pradesh State Energy Conservation Award-2018) and in the enclosed documents is true to the best of my knowledge & belief and nothing has been concealed therein. I am well aware of the fact that if the information given by us is proved false / not true at any point of time, our application shall be rejected.

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Organization Seal ……
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Approved By:

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Organization Seal ……
Place:

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

1	Name of the Establishment	
2	**Please provide details in the following format on major energy efficiency improvement projects/ measures including in-house R&D efforts, technology innovation, energy substitution and renewable energy systems commissioned during the year 2017-2018 giving energy savings achieved.**	

	Energy Conservation Project description	Achievement of Annual energy savings in 2017-18						Investment incurred on the project (Rs. Lakhs)
		Electrical Energy	Thermal Energy				Total savings (Rs. Lakhs)	
		(Lakh kWh)	FO/HSD (KL)	Gas (lakhs Nm^3)	Baggase (Tonne)	Total Thermal Energy (M kCal)		
Energy Conservation projects	(i) Please list of Energy Efficiency the projects title names which were implemented during the year2017-18 (ii) Please mention the achievement of energy saving against each projects in the suitable columns.							

* *Delete or add Thermal Energy as the case may be*

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Organization Seal ……

Date:

Approved By:

(Signature)
Name ……..
Designation.....……
Mobile No. ……..

Organization Seal ……

Place:

DOCUMENTS ATTACHED:

** Mandatory Supporting documents

1. For Electricity & Thermal Consumption: Month wise summarised details to be attached
2. Copy of ISO 50001 Certificate.
3. Copy of Certificate received from Supplier or any reputed test lab for Calorific Value of Fuel is attached
4. Relevant documents (other then above mentioned documents; if any) needs to submit.
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.

Annexure-A

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.

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)**	**55 marks**
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 is used (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