

**STATE LEVEL ENERGY CONSERVATION AWARD-2010**  
**{CATEGORY - ENERGY INTENSIVE INDUSTRY(DESIGNATED**  
**CONSUMER)}**  
**"Award Questionnaire"**

<b>1</b>	Name of the Unit			
<b>2 (a)</b>	The Sub-sector to which unit's nomination should be considered			
<b>(b)</b>	Are your Industry is covered in the Schedule of Energy Conservation Act-2001?*			
<b>3</b>	Complete address of Unit's location (including Chief Executive's name & designation) with telephone, fax nos. & e-mail.			
<b>4</b>	Year of Establishment			
<b>5</b>	Registered Office address with telephone, fax nos. & e-mail			
<b>6</b>	Name, designation, address, telephone, fax nos. & e-mail of responsible person who could be contacted in connection with the application for Award			
<b>7</b>		<b>2008-2009</b>	<b>2009-2010</b>	
<b>(a)</b>	Total Annual sales turnover of the unit in Rs Lakhs			
<b>(b)</b>	Energy Cost as % of manufacturing cost			

<b>8.0</b>	<b>Energy Consumption and cost</b>	<b>2008-2009</b>	<b>2009-2010</b>	
<b>8.1</b>	<b><i>Electricity Consumption and cost</i></b>			
<b>(A)</b>	<b><i>Purchased Electricity</i></b>			
<b>i)</b>	Units (Lakhs kWh/year)			
<b>ii)</b>	Total Cost (Rs. Lakhs/year)			
<b>iii)</b>	Plant Connected Load (kW)			
<b>iv)</b>	Contract demand (kVA) with utility			
<b>v)</b>	Avg Power Factor			

**\*\*\* If number of products are more, then specify separately for each.**

		2008-2009	2009-2010
<b>B)</b>	<b>Own Generation Used in Plant</b>		
a)	Through DG sets		
i)	Units used in plant (Lakhs kWh/year)		
ii)	Total Cost (Rs. Lakhs/year)		
b)	Through Steam &/or gas turbine or Renewable Energy route (please specify)		
i)	Units used in plant (Lakhs kWh/year)		
ii)	Total Cost (Rs. Lakhs/year)		
c)	Own generated electricity consumption within the plant (Lakhs kWh/year) B[a(i) + b(i)...]		
d)	Total cost of electricity (own generated) consumption within the plant (Rs. Lakhs/year) B[a(ii) + b(ii)]		
<b>(C) (a)</b>	<b>Total consumption of electricity (purchased + own generated in the plant) ( lakhs kwh/year)</b> <b>A(i) + B(c)</b>		
(b)	<b>Total electricity consumption for 2 years (Lakhs kWh)</b>		
<b>(D) (a)</b>	<b>Total cost of electricity consumption In the plant (Rs. Lakhs/year)</b> <b>A(ii) + B(d)</b>		
(b)	<b>Total cost of electricity for 2 years (Rs. Lakhs)</b>		

<b>8.2</b>	<b>Fuel Consumption &amp; Cost for process heating</b>		
<b>(E)</b>	<b>Coal</b>		
(i)	Quantity purchased (tonnes/year)		
(ii)	Quantity used for process heat (tonnes/year)		
(iii)	Delivered price of Coal (Rs./tonne)		
(iv)	Total coal cost for process (Rs. Lakhs/year) $E(ii) \times E(iii)$ ----- $10^5$		
(v)	<b>Total coal cost for 2 years (Rs. Lakhs)</b>		
<b>F)</b>	<b>Other purchased solid fuels (pl. specify) provide data on similar lines as indicated under 'Coal'</b>		

		2008-2009	2009-2010
<b>(G)</b>	<b>Furnace Oil</b>		
(i)	Quantity purchased (KL/year)		
(ii)	Quantity used for process heat (KL/year)		
(iii)	Delivered price of F. Oil (Rs./KL)		
(iv)	Total F. Oil Cost for process (Rs. Lakhs/year) $\frac{G(ii) \times G(iii)}{10^5}$		
(v)	Total F. Oil cost for 2 years (Rs. Lakhs)		
<b>(H)</b>	<b>Diesel/Other oils (Purchased) provide data on similar lines as indicated under 'Furnace Oil'</b>		
<b>(I)</b>	<b>Natural Gas</b>		
(i)	Quantity purchased (Lakh M <sup>3</sup> /year)		
(ii)	Quantity used for process heat generation (Lakh M <sup>3</sup> /year)		
(iii)	Average price of natural gas (Rs./1000 M <sup>3</sup> )		
(iv)	Total cost of natural gas for process (Rs. Lakhs/year) $\frac{I(ii) \times I(iii)}{10^3}$		
(v)	Total cost of natural gas for 2 years (Rs. Lakhs)		
<b>(J)</b>	<b>Any other purchased gas (Say LPG etc.) Provide data on similar lines as indicated under 'natural gas'</b>		
<b>(K)</b>	<b>Gas generated as by product/waste in the plant and used as fuel</b>		
(i)	Name		
(ii)	Quantity (Lakh M <sup>3</sup> /year)		
(iii)	Cost (if any) (Rs. Lakhs)		
<b>(L)</b>	<b>Solid waste generated in the plant and used as fuel</b>		
(i)	Name		
(ii)	Quantity (tonnes/year)		
(iii)	Cost (if any) (Rs. Lakhs)		
<b>(M)</b>	<b>Liquid effluent/waste generated in the plant and used as fuel</b>		
(i)	Name		
(ii)	Quantity (KL/year)		
(iii)	Cost (if any) (Rs. Lakhs)		
<b>(N)</b>	<b>Total Fuel Cost for process (Rs. Lakhs/year)</b>		
(i)	Fuel cost per year (Rs. Lakhs/year) E(v) + G(v) + I(v) + ...etc.		
(ii)	Total Fuel cost for 2 years (Rs. Lakhs/year)		
<b>8.3</b>	<b>Total Energy cost (Rs. Lakhs/year)</b>		
(i)	Energy Cost per year (Rs. Lakhs/year) Sl.No. 8.1 D(a) + Sl.No. 8.2 (N)(i)		
(ii)	Total Energy cost for 2 years (Rs. Lakhs/year)		

		2008-2009	2009-2010
<b>9</b>	<b>Thermal Energy Consumption for process heating</b>		
<b>(O)</b>	<b>Coal</b>		
(a)	Coal used for process (tonnes/year) From S.No. : 8.2 E(ii)		
(b)	Weighted Av. Gross Calorific value (GCV) (Kcal/Kg)		
(c)	Total heat value of coal used (Million kCal/year) $O(a) \times O(b) \times mf^*/1000$		
<b>(P)</b>	<b>Furnace Oil</b>		
(d)	Furnace Oil used for process (KL/year) from S. No. : 8.2 G(ii)		
(e)	Av. GCV (KCal/Kg)		
(f)	Av. Heat value (KCal/liter) $0.95 \times P(e)$		
(g)	Total heat value of furnace oil million K Cal/year $P(d) \times P(f) \times mf^*/1000$		
<b>(Q)</b>	<b>Natural Gas</b>		
(h)	Quantity used for process (lakhs m <sup>3</sup> /year) From S.No. 8.2 I(ii)		
(i)	Av. GCV (K Cal/1000m <sup>3</sup> )		
(j)	Total heat value (Million K Cal) $Q(h) \times Q(i) \times mf^*/10000$		
	<b>Diesel/other oils/liquid effluents</b> Provide data on similar lines as indicated above for 'furnace oil' <b>Other solid fuels/wastes</b> Provide data on similar lines as indicated above for 'Coal' <b>Other purchased/by-product/waste gases</b> Calculate total heat value on similar lines as indicated for 'natural gas'		

\*mf = appropriate multiplying factor

<b>9</b>		2008-2009	2009-2010
<b>(R)</b>	<b>k) Total thermal energy consumption per year</b> $O(c) + P(g) + Q(j) + \dots$ etc. (Million kCal/year)		
	<b>(l) Total thermal energy consumption for 2 years (Lakhs kCal)</b>		

**10 (a) Integrated steel plants should also report specific energy consumption in Million kCal/ tonne of cast steel (tcs)**

Year	Million kCal/ tcs
2008 – 2009	
2009 - 2010	

**(b) Cement plants should report specific electrical energy consumption per tonne of clinker & cement, and specific thermal energy consumption per kg of clinker & cement.**

Year	Specific Electrical Energy Consumption		Specific Thermal Energy Consumption	
	kWh/ tonne of clinker	kWh/ tonne of cement	kCal/ kg of clinker	kCal/ kg of cement
2008 – 2009				
2009 - 2010				

**(c) Fertilizer plants should also report specific energy consumption in Million kCal/ tonne of Urea**

Year	*Million kCal/ tonne of urea
2008 – 2009	
2009 - 2010	

\*1 Please specify feed stock base of the Plant: Neptha/ mixed feed stocks/ Furnace oil and LSHS/ gas/ others

\*2 Please mention specific energy consumption of other products (if any) separately.

**11 Organizational set up for Energy Conservation**

- a) Does your organization have an Energy Conservation Cell?
- b) If yes, who heads the EC Cell? Whether energy conservation is his exclusive or additional responsibility? To whom he is reporting?
- c) Give salient features of EC Cell's constitution, functions, amount of finances available, achievements, future plans and strategy followed to implement energy conservation/ efficiency programmes and policies, etc.
- d) Does your unit have energy accounting and monitoring procedures and system in place? Which department is responsible for maintaining such records - EC cell or any other?
- e) Has your unit/organization declared its `Energy Management Policy'? If yes, please attach a copy of the same.
- f) As per the EC Act-2001, has your unit appointed or designated an `Certified Energy Manager' . If yes, please give his name, Telephone No., Fax No. and e-mail Address.
- g) What are the steps taken to motivate the employees to participate in ENCON efforts ?
- h) Have your EC Cell members attended any seminars, conferences, training program and workshops on energy conservation? If yes, Please give details in following manner.

Sr. No.	Program name & Details	Organized By	No of Participants	Duration

- 12 (a) Whether any energy audit has been undertaken in your unit in last three years? If yes, please give details on the following.**
- i) When was last energy audit carried out in the plant? What is the frequency of carrying out audits?
  - ii) Whether this was done by in-house team or an external agency/ consultant was engaged? Please give salient details.
  - iii) List out the recommendations & number of measures implemented.
- (b) Has your Unit received any other energy conservation Awards? If any Please specify details.**

**13 What are the main constraints in your unit in implementing the energy efficiency/ conservation programme in the plant? Please list down the same with salient details.**

**14 Please list energy conservation measures planned for the future, investment planned & expected savings**

Energy Conservation Measures (Planned)	Anticipated savings		Approx. investment (Rs. Lakhs)	Project Commencement & Completion year
	in			
	Energy Value (specify units)	Rs. Lakhs		

**15 DOCUMENTS ATTACHED:**

- I. One copy each of the audited Financial annual reports for the years 2008-2009 & 2009-10 are enclosed. (Note: If audited report for the 2009-10 year is not available, the pre-audited report may please be enclosed)
- II. A brief write up of the unit along with photographs depicting equipment / locations where energy efficiency activities have been undertaken and a Floppy Diskette / CD containing the entire write-up is enclosed (Please ensure that name of the unit is written on the CD).
- III. Please give justification in one page write-up, why you think that your unit is eligible for this prestigious award?

Signature of the Chief Executive.....

Date:  
Place:

Name & designation of the  
Chief Executive.....  
Organization Seal

**Please submit this information to:**

**Director  
Punjab Energy Development  
Solar Passive Complex,  
Plot No. 1 & 2,  
Sector-33 D,  
Chandigarh - 160034  
Tel.No. 0172-2663328, 2663382  
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