

Proposed Energy Conversion Factors

1 kWh	-	860 kilocalories (kCal)
1 kg Coal/Coke	-	Gross Calorific Value as per supplier's (coal company's) latest certificate
1 kg Charcoal	-	6,900 kCal or as per supplier's latest certificate
1 kg Furnace Oil/ RFO / LSHS / NAPHTHA	-	10,050 kCal (density = 0.9337 kg/liter) or as per supplier's latest certificate
1 kg HSD	-	11,840 kCal (density = 0.8263 kg/liter) or as per supplier's latest certificate
1 kg Petrol	-	11,200 kCal (density = 0.7087 kg/liter) or as per supplier's latest certificate
1 kg Kerosene	-	11,110 kCal (density of SKO = 0.7782 kg/liter) or as per supplier's latest certificate
1 kg LPG	-	12,500 kCal or as per supplier's latest certificate
1 m ³ Natural Gas	-	8,000-10,500 kCal (Actual calorific value as per supplier's latest certificate may be considered.) In case of non-issue of certificate by the supplier, average of the range 8000 -10,500 kCal/m ³ may be considered)

Sample Calculation: For example

Furnance oil consumption in a Hospital	= 50KL/yr = 50,000 Ltr/yr = 50,000 x sp. Gravity = 50,000 x 0.9337 = 46685 Kgs/yr
Thermal Energy Consumption in Mkal	= 46685 x 10500/10 ⁶ = 490 Mkal/yr

STATE ENERGY CONSERVATION AWARD – 2011
Hospitals and Nursing Homes more than 50 beds
"Award Questionnaire"

Note: Hospitals and Nursing Homes Buildings having connected load of 200 kW and above are eligible to participate in the Award Scheme

Sl. No	General Description	
1	Name of the organization owning and maintaining the nominated Hospitals and Nursing Homes	
2	Specific name of the nominated Hospitals and Nursing Homes building	
3	Year of commencement of the commercial activities in the Hospitals and Nursing Homes building	
4	Complete address of building's location (including Chief Executive's name & designation) with telephone, fax nos., E-Mail and Mobile nos.	
5	Name, designation, address, telephone, mobile, fax nos. & E-Mail of responsible person who could be contacted in connection with the application for Award	

6 Description of the Hospitals and Nursing Homes Building and Connected Load (kW)

- 6 (a) Building Status (Please tick appropriate box) Stand alone building Part of a building complex
- 6 (b) No. of storeys _____

6 (c)	Hospitals and Nursing Homes Building Area and Connected Load	2008 - 09	2009 - 10
(i)	Total Built up Area (in m ²)		
(ii)	Air-conditioned area (in m ²)		
(iii)	Non-Airconditioned area (in m ²)		
(iv)	Total Connected Load (in kW)		
6 (d)	Building contract demand with electric utility company (kVA)		
6 (e)	Average power factor for the period		
6 (f)	Building operating hours/ Year		

7 Energy (Electricity & Fuels) Consumption in the Hospitals and Nursing Homes Building

	Energy used	Units	2009-10	2010-11
7 (A)	Electrical Consumption			
(a)	Electricity Purchased	Lakh kWh		
(b)	Self generated	Lakh kWh		
(c)	Total Electricity Consumption (a+b)	Lakh kWh		
(d)	Total electricity consumption/ Total built-up area (in kWh/m ²) = $\frac{7 (A) (c)}{6 (c) (i)} \times 10^5$	kWh/m ²		

	Energy used	Units	Gross Calorific Value(use appropriate units like kCal/kg, kCal/lr, kCal/m³)	2009-10	2010-11
7 (B)	Fuels				
(a)	<u>Furnace Oil/ LDO/ HSD</u> (It should <u>NOT</u> include fuel used for self-generation of electricity)	kilo litres (kL)			
(b)	<u>LPG</u>	kg			
(c)	Natural Gas /CNG	Lakh m ³			
(d)	Any other fuel	Specify unit			
(e)	Total thermal energy consumption in building (Million kCal) {(a)* GCV(a) + (b)*GCV (b) + (c)*GCV (c) + (d)*GCV (d) }				
(f)	Total built up area of building in m ² S. No. 6 (c) (i)				
(g)	Total thermal energy consumption/ Total built-up area (in Million kCal / m ²) 7 B (e) <hr/> 7 B (f)				

8 Achievement of energy savings from implementation of new Energy Efficiency Projects for the current year

	Year	Electricity (Lakh kWh)	Fuel (Please specify) (Million kCal)
	2010-11		

* Thermal Energy consumption in the Building is to be obtained and presented in Million kCal by multiplying the quantity of Fuel (Coal, F.Oil, Gas, etc.) consumed with corresponding gross calorific value of the fuel and use of appropriate multiplying factor. The enclosed chart at Annexure-`E'- may be used for working out the Million kCal.

	Energy used	Units	Gross Calorific Value(use appropriate units like kCal/kg, kCal/lr, kCal/m³)	2009-10	2010-11
7 (B)	Fuels				
(a)	<u>Furnace Oil/ LDO/ HSD</u> (It should <u>NOT</u> include fuel used for self-generation of electricity)	kilo litres (kL)			
(b)	<u>LPG</u>	kg			
(c)	Natural Gas /CNG	Lakh m ³			
(d)	Any other fuel	Specify unit			
(e)	Total thermal energy consumption in building (Million kCal) {(a)* GCV(a) + (b)*GCV (b) + (c)*GCV (c) + (d)*GCV (d) }				
(f)	Total built up area of building in m ² S. No. 6 (c) (i)				
(g)	Total thermal energy consumption/ Total built-up area (in Million kCal / m ²) 7 B (e) <hr/> 7 B (f)				

8 Achievement of energy savings from implementation of new Energy Efficiency Projects for the current year

	Year	Electricity (Lakh kWh)	Fuel (Please specify) (Million kCal)
	2010-11		

* Thermal Energy consumption in the Building is to be obtained and presented in Million kCal by multiplying the quantity of Fuel (Coal, F.Oil, Gas, etc.) consumed with corresponding gross calorific value of the fuel and use of appropriate multiplying factor. The enclosed chart at Annexure- 'E'- may be used for working out the Million kCal.

9 Summary
 Please summarize the information and data provided in this questionnaire as per the format given below:

STATE ENERGY CONSERVATION AWARD –2011
Hospitals and Nursing Homes more than 50 beds
SUMMARY SHEET

Unit Name _____

Sub-Sector _____

9a. Specific Energy Consumption (SEC) Reduction during the period 2009 – 10 & 2010-11 (S.No. 7 A (d) & 7 B (g))					
Year	Total electricity consumption/ Total built-up area (kWh/m ²)	% Reduction over 2009-10	Total Thermal Energy Consumption/ Total built-up area (Million kCal/m ²)	% Reduction over 2009-10	
2009-10		--		--	
2010-11					
9b. Absolute Savings					
Elect. Saving (Lakh kWh) in 2010-11 (i)	Thermal (Fuel) Saving (Million kCal) in 2010-11 (ii)	Elect. Consumption on (lakh kWh) in 2009-10 (iii)	Thermal (Fuel) Consumption (Million kCal) in 2009-10 (iv)	% Elect. Saving (savings achieved/ electricity consumption of previous year) (i) / (iii) x 100	% Thermal (Fuel) Saving (savings achieved/ thermal energy consumption of previous year) (ii)/ (iv) x 100

I, Solemnly declare that to the best of my knowledge the information given in the Award Questionnaire (National Energy Conservation Award-2011) thereto is correct and complete.

(Signature of the Competent Authority)

Name & designation

Mobile No.

Date:

Place:

Organization Seal

SECA - 2011 - Evaluation & Weightage criteria – Hospitals and Nursing Homes more than 50 beds		
S. No.	ITEM	Max 50 marks
1	ENERGY SAVINGS - Electrical and Thermal	(10 marks)
i	Electrical Energy (EE) savings in 2010-11	
	% Saving in EE over the previous year 2009-10	
ii	Thermal energy savings in 2010-11	(10 marks)
	% Saving in Thermal Energy over the previous year 2009-10	
2	SPECIFIC ENERGY CONSUMPTION REDUCTION	
i	% reduction in Electric energy consumption/Total built-up area during 2010-11 over 2009-10	(10 marks)
ii	% reduction in Thermal energy consumption/Total built-up area during 2010-11 over 2009-10	(10 marks)
3	% reduction in Total energy/built-up area comparison with the best reported values among the participating units	(10 marks)

NOTE:

1. *The above evaluation and weightage criterion is common for all the Hospitals and Nursing Homes buildings. If due to some peculiar characteristics of the participating sectors, the application of the above criteria may not be feasible. Therefore, Award Committee reserves the right to modify the criteria, which shall be uniformly applied to all the participating buildings in that particular sector.*
2. *The distribution of weightage between specific electrical and thermal energy consumption for a particular sector would be decided by the Award Committee*
3. *For those particular sector, where it is not feasible to compare SEC with best reported value, 50% of the weightage may be merged with S.No.-2 and the balance 50% with S.No.-1*

* Delete or add fuels as the case may be

I, Solemnly declare that to the best of my knowledge the information given in the Award Questionnaire (National Energy Conservation Award-2011) thereto is correct and complete.

(Signature of the Competent Authority

Date:

Place:

Name & designation

Mobile No.

.....

Organization Seal

.....

DOCUMENTS

ATTACHED:

1. Copies of Certificate pertaining to statutory requirements such as safety and pollution control for the period 2009-10 are enclosed.
2. A brief write up of the unit (not more than 3-4 pages) along with photographs depicting equipment / locations where energy efficiency activities have been undertaken and a CD containing the same is attached.

STATE ENERGY CONSERVATION AWARD – 2011
Hospitals and Nursing Homes more than 50 beds
Award for Excellence in Energy Conservation and Management

OBJECTIVE

The objective of the scheme is to give recognition to the management of Hospitals and Nursing Homes buildings who have made systematic and serious attempts for efficient utilization and conservation of energy during the years 2009 -10 and 2010 -11.

THE AWARDS

First and second prizes are proposed to be given to the management of nominated Hospitals and Nursing Homes buildings in the form of a Silver Plaque with appropriate citation on such awards as may be decided. The performance of the nominated Hospitals and Nursing Homes buildings would be judged through a questionnaire (format enclosed) which would be evaluated by an Award Committee.

Hospitals and Nursing Homes buildings getting the First Position for the third year in a row will be eligible for a "Top Rank Award" for that year. The Hospitals and Nursing Homes building eligible for Top Rank Award for 3rd year in a row would be given the highest prize, namely "**Excellence Award**" (Instead of Top Rank Award) in recognition of its consistent performance.

ELIGIBILITY

The scheme is open to all **Hospitals and Nursing Homes** buildings, which are **having connected load of 100 kW and above** (Office Buildings to submit their applications separately under National Energy Conservation Award Scheme for Office Buildings - 2011).

Criteria for Judging Merit

- a) Evaluation of the nominations will be done in two phases.
- b) In the first phase, evaluation will be made on the basis of the preliminary information, as required in Annexure-A and the best 10% of the participating Hospitals and Nursing Homes (subject to minimum 5) would be short listed.
- c) These short listed Hospitals and Nursing Homes would then have to submit the details of the savings made and the projects implemented, as required in Annexure-C.
- d) **The members of the Award Committee or their nominees may visit nominated Hospitals and Nursing Homes buildings for verification of data supplied, if felt necessary, and it will be obligatory on the part of the management of nominated buildings to provide necessary co-operation.**
- d) The Committee's decision would be final and no appeal would be entertained.

Submission of nomination

The filled in Questionnaires should reach the office of

Vice Chairman & Managing Director
Non-Conventional Energy Development Corporation of A.P. Ltd.
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Hyderabad – 500 001
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