



**KONGU ENGINEERING COLLEGE**  
**(Autonomous)**  
PERUNDURAI, ERODE - 638 060, INDIA



**Dr.T.Logeswaran, M.E., Ph.D**

Associate Professor

BEE Certified Energy Auditor (Regd.No:EA13164)

Department of Electrical and Electronics Engineering

Phone : +91- 4294 - 226538

Mobile : 97877-33910

E-mail : logeskec@gmail.com

logeswaran@kongu.ac.in

Ref: KEC/EA/2022-2023/1994

20/11/2023

**ENERGY AUDIT CERTIFICATE**

This is to certify that, we have conducted an Energy Audit in Kongu Arts and Science College Nanjanapuram, Erode - 638107, TamilNadu, India, on 18<sup>th</sup> November, 2023. The audit team has identified energy saving measures and the summary of Energy Audit Process is given below.

S.No.	Description	Parameters
1	Annual Energy/ fuel Consumption	1,59,444 litres diesel, 947 Cylinders of LPG & 475283.3 kWh electricity
2	Present Annual Energy Cost	Rs. 2,25,36,953.00
3	Proposed cost Savings due to the replacement 100 fans with BLDC fans	Rs. 75,000.00
4	Proposed cost Savings per year from LPG cylinders by efficient usage.	Rs. 34,000.00
5	Proposed cost savings per year due to the installation of 50 kW solar PV Plant.	Rs. 4,62,000.00
6	Initial Investment Required	Rs. 19,00,000.00
7	Total savings ((3)+(4)+(5))	Rs. 5,71,000.00
8	Payback period in years	3.33

**Equipment/Systems Audited**

Electrical Network

Inverter, UPS and Battery System

Lighting, Fans & Air Conditioning System

Diesel Fuel Consumption

Audited and Accounted for June 2022 to May 2023

Yours Truly

Dr.T.Logeswaran

BEE Certified Energy Auditor EA-13164,

IGBC - AP, ISO 14001:2015 -

Environmental Management Systems

Lead Auditor

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.

KONGU ENGINEERING COLLEGE,

THOPPUPALAYAM (PO)

PERUNDURAI (TK), ERODE - 638 060



Estd : 1984

# KONGU ENGINEERING COLLEGE

(Autonomous)

PERUNDURAI, ERODE - 638 060, INDIA



CERT No : 99-100-20788  
ISO 9001 : 2015

Dr.T.Logeswaran, M.E., Ph.D

Associate Professor

BEE Certified Energy Auditor (Regd.No:EA13164)

Department of Electrical and Electronics Engineering

Phone : +91- 4294 - 226538

Mobile : 97877-33910

E-mail : logeskec@gmail.com

logeswaran@kongu.ac.in

Ref: KEC/EN/2022-2023/1994

20/11/2023

## ENVIRONMENTAL AUDIT CERTIFICATE

This is to certify that we have conducted an **Environmental Audit** in **Kongu Arts and Science College Nanjanapuram, Erode - 638107, TamilNadu, India**, on 18<sup>th</sup> November, 2023. This audit process highlights the present CO<sub>2</sub> emission and methods adopted to neutralize the same in the college campus.

S.No.	Description	Type of fuel and their conversion process		
		Electrical energy consumed	Diesel	LPG
1	Annual Energy Consumption	475283.3 kWh	1,59,444 lit	947 Nos.
2	CO <sub>2</sub> Emission standards	0.95 kg/kWh	2.68 kg/lit	56.2 kg/cyl.
3	Total CO <sub>2</sub> emission(tonne/Annum)	932.05 tonnes		
4	Total No. of students and staff	4216		
5	Per capita CO <sub>2</sub> emission per year	0.221 tonne (+)		
6	No. of Matured Trees (1 tree absorbs 22 kg CO <sub>2</sub> /year)	457		
7	CO <sub>2</sub> neutralized due to matured trees (tonne/Annum)	10.05 tonnes		
8	CO <sub>2</sub> neutralized due to Solar PV installed	104.3 tonnes		
9	CO <sub>2</sub> to be neutralized per capita per year	0.193 tonnes(-)		

### Systems Audited

- ✓ Electricity consumption
- ✓ Diesel consumption
- ✓ LPG consumption

### Systems Inspected

- ✓ Solid & Bio-medical waste handling & Management
- ✓ Usage of chemical, salts & acids
- ✓ RO system

Audited and Accounted for June 2022 to May 2023

Yours Truly

Dr.T.Logeswaran

BEE Certified Energy Auditor EA-13164,  
IGBC - AP, ISO 14001:2015 -  
Environmental Management Systems  
Lead Auditor

DEPT. OF ELECTRICAL & ELECTRONICS ENGG  
KONGU ENGINEERING COLLEGE,  
THOPPUPALAYAM (PO)  
PERUNDURAI, ERODE - 638 060



**KONGU ENGINEERING COLLEGE**  
**(Autonomous)**  
PERUNDURAI, ERODE - 638 060, INDIA



Estd : 1984

**Dr.T.Logeswaran, M.E., Ph.D**

Associate Professor

BEE Certified Energy Auditor (Regd.No:EA13164)

Department of Electrical and Electronics Engineering

Phone : +91- 4294 - 226538

Mobile : 97877-33910

E-mail : logeskec@gmail.com

logeswaran@kongu.ac.in

Ref: KEC/GA/2022-2023/1994

20/11/2023

**GREEN AUDIT CERTIFICATE**

This is to certify that, we have conducted a **Green Audit** in **Kongu Arts and Science College Nanjanapuram, Erode - 638107, TamilNadu, India**, on 18<sup>th</sup> November, 2023. The audit process investigates the following activities.

- I) Coverage of matured trees
- II) Site Preservation
- III) Reduction of heat island effects
- IV) Inspection of the water conservation measures
- V) Pedestrian network
- VI) Energy efficiency
- VII) Health and well-being facilities

Audited and Accounted for June 2022 to May 2023

Yours Truly

Dr.T.Logeswaran

**Certified Energy Auditor EA-13164,**  
**IGBC – AP, ISO 14001:2015 -**  
**Environmental Management Systems**  
**Lead Auditor**

**DEPT. OF ELECTRICAL & ELECTRONICS ENGG**  
**KONGU ENGINEERING COLLEGE,**  
**THOPPUPALAYAM (PO)**  
**PERUNDURAI (TK), ERODE - 638 060**