



NAAC DVV CLARIFICATIONS

Criteria: VII	Institutional Values and Best Practices
Key Indicator	Institutional Values and Social Responsibilities
Metric: 7.1.2	Alternate Sources of Energy and Energy Conservation.

Metric	DVV Clarifications	Response of HEI
7.1.2	<ul style="list-style-type: none"> • Geo tagged photographs with caption of the facilities. • Bills for the purchase of equipments for the facilities created under this metric. • Any other relevant proof for the selected options. • Permission document for connection to the grid from Government / Electricity Board or Authority. 	<p>The Geo tagged photographs with caption of the facilities have been provided. The energy Conservation chart of the college during the assessment period has also been enclosed. Being a Government College, Civil and Electric works have been carried out by Public Works Department (PWD) based on the allocation of funds from the Government of Tamil Nadu and also based on our Civil and electrical requirements. Utilization Certificate from the Principal is issued to PWD after the completion of civil and electrical works and also upon inspection. As the relevant bills for the proposed infrastructural facilities have been prepared by Technical Education division, Thanjavur and submitted to Treasury, District Head Quarters, Thanjavur, the above mechanism does not allow us to produce the bills. As the College has not set up a solar power plant the question of connecting to the grid does not arise.</p>

DESCRIPTION	PAGE NUMBER
Geo-tagged Photographs	2
Bills	10
Alternative Sources of Energy and Energy Conservation	11



CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 Institutional Values and Social Responsibilities

7.1.2. Alternate/Non – Conventional Sources of Energy and Conservation.

7.1.2.1 Geo-tagged Photographs of the facilities

SOLAR/SENSOR BASED STREET LIGHTS



GOVERNMENT COLLEGE FOR WOMEN(AUTONOMOUS)

KUMBAKONAM - 612 001

Affiliated to Bharathidasan University

DST - CURIE Sponsored Institution
IV Cycle of Accreditation



☎ 0435 – 2401391

✉ principal@gcw.ac.in



7.1.2. Alternate/Non – Conventional Sources of Energy and Conservation.

7.1.2.1 Geo-tagged Photographs of the facilities

SOLAR/SENSOR BASED STREET LIGHTS





7.1.2. Alternate/Non – Conventional Sources of Energy and Conservation.

7.1.2.1 Geo-tagged Photographs of the facilities

SENSOR BASED LIGHTING IN ADMIN BLOCK





☎ 0435-2401391

✉ principal@gcw.ac.in



7.1.2. Alternate/Non – Conventional Sources of Energy and Conservation.

7.1.2.1 Geo-tagged Photographs of the facilities

**WATER LEVEL INDICATOR
A SENSOR BASED ENERGY CONSERVATIONAL INITIATIVE**





7.1.2. Alternate/Non – Conventional Sources of Energy and Conservation.

7.1.2.1 Geo-tagged Photographs of the facilities

**FLOAT-WATER LEVEL INDICATOR
A SENSOR BASED ENERGY CONSERVATIONAL INITIATIVE**





☎ 0435-2401391

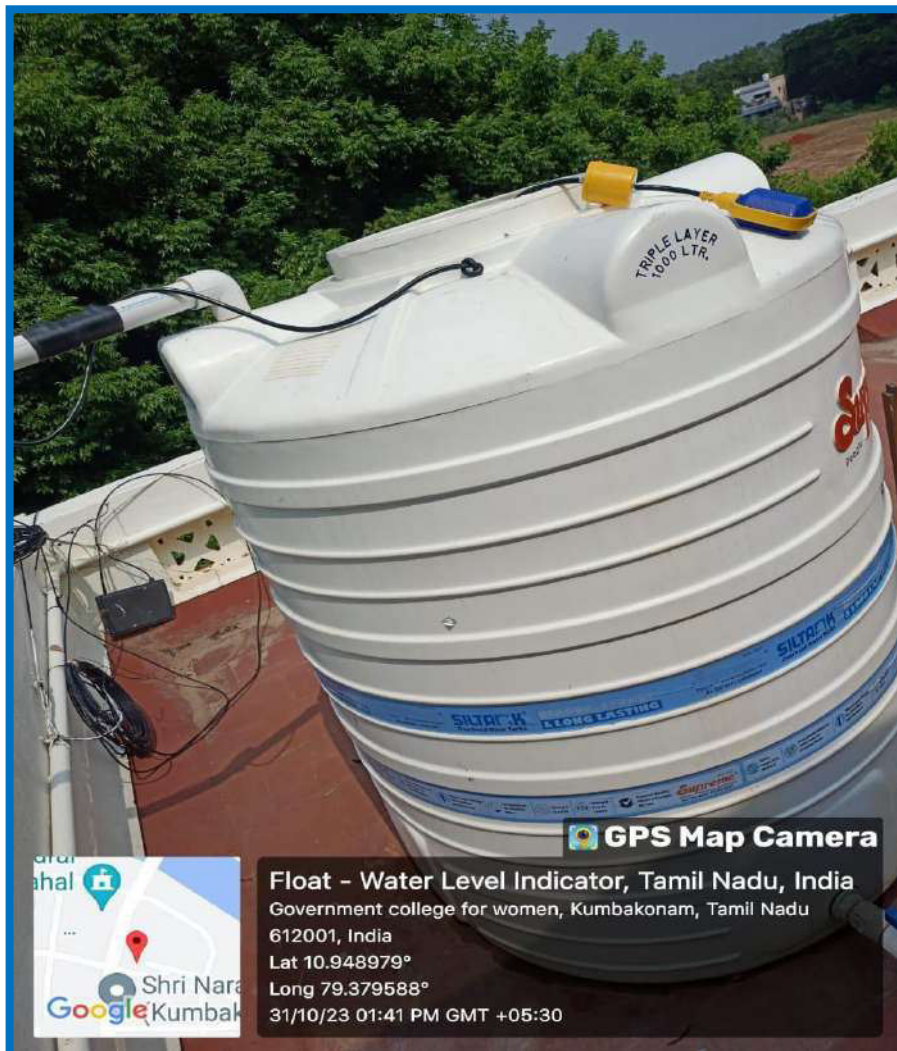
✉ principal@gcw.ac.in



7.1.2. Alternate/Non – Conventional Sources of Energy and Conservation.

7.1.2.1 Geo-tagged Photographs of the facilities

**WATER LEVEL INDICATOR
A SENSOR BASED ENERGY CONSERVATIONAL INITIATIVE**



GOVERNMENT COLLEGE FOR WOMEN(AUTONOMOUS)

KUMBAKONAM - 612 001

Affiliated to Bharathidasan University

DST - CURIE Sponsored Institution

IV Cycle of Accreditation



☎ 0435 – 2401391

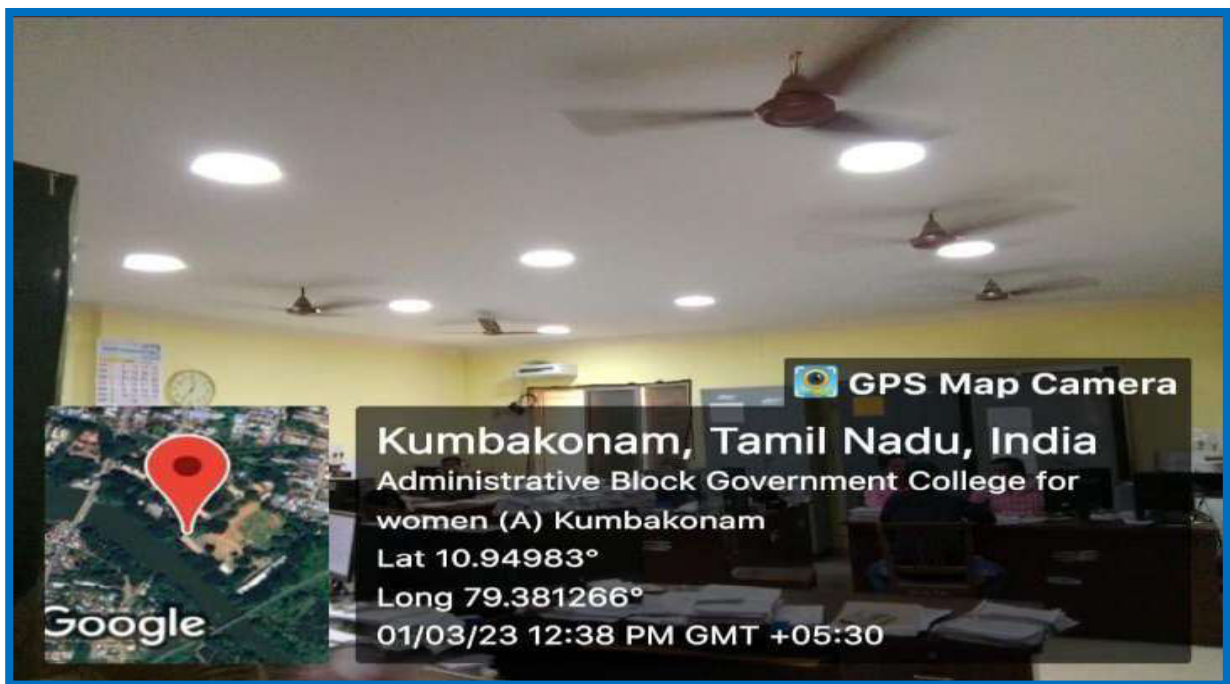
✉ principal@gcw.ac.in



7.1.2. Alternate/Non – Conventional Sources of Energy and Conservation.

7.1.2.1 Geo-tagged Photographs of the facilities

USE OF LED BULBS/ POWER EFFICIENT EQUIPMENT





7.1.2. Alternate/Non – Conventional Sources of Energy and Conservation.

7.1.2.1 Geo-tagged Photographs of the facilities

USE OF LED BULBS/ POWER EFFICIENT EQUIPMENT





CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

7.1.2. Alternate Sources of Energy and Energy Conservation Measures

Bills

Mechanism Behind Maintenance of Civil and Electrical Works

Being a Government College, Civil and Electrical Works have been carried out by Public Works Department (PWD) based on the allocation of funds from Government of Tamil Nadu and also based on our Civil / Electrical requirements. Utilization Certificate from the Principal is issued to Public Works Department after the completion of Civil and Electrical works and also upon inspection. As relevant bills for the proposed infrastructural (Civil & Electrical) facilities have been prepared by Technical Education Division, Thanjavur and submitted to Treasury, District Quarters, Thanjavur, the above mechanism does not allow us to either possess and or produce the bills upon request.



S. Ariv
PRINCIPAL
Government College for Women (Autonomous)
KUMBAKONAM.



7.1 INSTITUTIONAL VALUES AND SOCIAL RESPONSIBILITIES

7.1.2 Energy Conservation Chart

1. Replacement of Tube Lights by LED/CFL Bulbs

LOCATION	DETAILS OF ENERGY CONSUMPTION	TUBE LIGHTS	REPLACED BY CFL	REPLACED BY LED	ENERGY SAVED
IQAC Room	Number of bulbs	6	12		23.232 kW
	Watt per bulb	40	9		
	Energy consumed by the bulbs	0.24 kW	0.108 kW		
	Energy consumed per month*	0.24x8x22 =42.24 kW	0.108x8x22 =19.008 kW		
Principal Chamber	Number of bulbs	11		11	11.616 kW
	Watt per bulb	36		30	
	Energy consumed by the bulbs	0.396 kW		0.33 kW	
	Energy consumed per month*	0.396x8x22 =69.696 kW		0.33x8x22 =58.08 kW	
Administrative Block	Number of bulbs	21		21	36.96 kW
	Watt per bulb	40		30	
	Energy consumed by the bulbs	0.84 kW		0.63 kW	
	Energy consumed per month*	0.84x8x22 =147.84 kW		0.63x8x22 =110.88 kW	
Council Hall	Number of bulbs	8		8	8.448 kW
	Watt per bulb	36		30	
	Energy consumed by the bulbs	0.288 kW		0.24 kW	
	Energy consumed per month*	0.288x8x22 =50.688 kW		0.24x8x22 =42.24 kW	
COE Room	Number of bulbs	11		11	38.72 kW
	Watt per bulb	40		20	
	Energy consumed by the bulbs	0.44 kW		0.22 kW	
	Energy consumed per month*	0.44x8x22 =77.44 kW		0.22x8x22 =38.72 kW	

P. Manjula
 Junior Engineer PWD,
 Tech. Edn. Electrical Section,
 Kumbakonam.

GOVERNMENT COLLEGE FOR WOMEN(AUTONOMOUS)

KUMBAKONAM - 612 001

Affiliated to Bharathidasan University

DST - CURIE Sponsored Institution

IV Cycle of Accreditation



Estd. 1963

0435 - 2401391

principal@gewk.ac.in



Strong Room	Number of bulbs	12		12	33.79 kW
	Watt per bulb	36		20	
	Energy consumed by the bulbs	0.432 kW		0.24 kW	
	Energy consumed per month*	$0.432 \times 8 \times 22 = 76.03 \text{ kW}$		$0.24 \times 8 \times 22 = 42.24 \text{ kW}$	
Valuation Hall	Number of bulbs	9		9	25.344 kW
	Watt per bulb	36		20	
	Energy consumed by the bulbs	0.324 kW		0.18 kW	
	Energy consumed per month*	$0.324 \times 8 \times 22 = 57.024 \text{ kW}$		$0.18 \times 8 \times 22 = 31.68 \text{ kW}$	
Old seminar Hall	Number of bulbs	15		15	52.8 kW
	Watt per bulb	40		20	
	Energy consumed by the bulbs	0.6 kW		0.3 kW	
	Energy consumed per month*	$0.6 \times 8 \times 22 = 105.6 \text{ kW}$		$0.3 \times 8 \times 22 = 52.8 \text{ kW}$	
Data Structure Lab	Number of bulbs	18		18	12.672 kW
	Watt per bulb	40		36	
	Energy consumed by the bulbs	0.72 kW		0.648 kW	
	Energy consumed per month*	$0.72 \times 8 \times 22 = 126.72 \text{ kW}$		$0.648 \times 8 \times 22 = 114.048 \text{ kW}$	
Solar powered /Sensor based Street Lights	Number of bulbs	4		4	35.2 kW
	Watt per bulb	40		0.5(multiple of LEDs)≈ 90 Watts solar panel	
	Energy consumed by the bulbs	0.16 kW		0.36 kW	

P. Manjunath
 Junior Engineer PWD,
 Tech. Edn. Electrical Section
 Kumbakonam.

GOVERNMENT COLLEGE FOR WOMEN(AUTONOMOUS)

KUMBAKONAM - 612 001

Affiliated to Bharathidasan University

DST - CURIE Sponsored Institution

IV Cycle of Accreditation



☎ 0435 - 2401391

✉ principal@gcwk.ac.in



	Energy consumed per month*	28.16 kW		63.36 kW	
Sensor based lights (COE Block)	Number of bulbs	4		4	
	Watt per bulb	40		9	
	Energy consumed by the bulbs	0.16 kW		0.036 kW	
	Energy consumed per month *	$0.16 \times 8 \times 22 = 28.16 \text{ Kw}$		$0.036 \times 8 \times 22 = 6.336 \text{ Kw}$	21.824 kW
D- CIF (DST-CURIE LAB)	Number of bulbs	12		12	
	Watt per bulb	40		36	
	Energy consumed by the bulbs	0.48 kW		0.432 kW	
	Energy consumed per month *	$0.48 \times 8 \times 22 = 84.48 \text{ kW}$		$0.432 \times 8 \times 22 = 76.032 \text{ kW}$	8.448 kW
Total Energy Saved = 309.054 kW					

- Assuming that the college works for 8 hours per day and 22 working days per month.
- Replacement of Conventional lights with Energy Efficient LED lights has been done in a phased manner.

P. Magesh
 Junior Engineer PWD,
 Tech. Edn. Electrical Section
 Kumbakonam



2. Replacement of CRT Monitors by LCD Monitors

Monitor Screen size	Number of CRT Monitors	Number of LCD Monitors	Energy Consumption in CRT Monitors	Energy Consumption in LCD Monitors	ENERGY Saved
14"	70	70	360 WATT	200 WATT	14.4 KW
15"	14	14	360 WATT	200 WATT	
17"	06	06	360 WATT	200 WATT	
TOTAL	90	90	32.4 KW	18 KW	

P. Manjunath
Junior Engineer PWD,
Tech. Edn. Electrical Section
Kumbakonam.