



# E.G.S.PILLAY ENGINEERING COLLEGE (AUTONOMOUS)

NAGAPATTINAM-611002.TAMILNADU,INDIA

Approved by AICTE, New Delhi, Affiliated

to Anna University, Chennai (Accredited by NAAC with 'A' Grade and NBA)

Email: principal@egspec.org website: www.egspec.org Ph: 04365-251112

## CRITERION 7 – INSTITUTIONAL VALUES AND BEST PRACTICES

METRIC	PARTICULAR
7.1.2	The Institution has facilities for alternate sources of energy and energy conservation measures  Solar energy Biogas plant Wheeling to the Grid Sensor-based energy conservation Use of LED bulbs/power efficient equipment

<b>HEI Input</b>	A. Any 4 or All of the above
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<b>DVV Suggested Input</b>	C. 2 of the above
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DVV CLARIFICATION	HEI RESPONSE
HEI need to provide the bills for the purchase of equipment for the facilities created under this metric and any other relevant evidence for these selected options.	Bills for the purchase of equipment for the solar energy, biogas plant, Sensor based energy conservation are provided. Bills for purchase of LED bulb in the academic year 2021-22 are provided.
HEI also need to provide the permission document for connecting to the grid from the Government/ Electricity authority	The permission document for connecting to the grid from the Government/ Electricity authority are provided.

<b>Options</b>	A. Any 4 or All of the above
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### Writeup:

The institute have 200KW solar PV plant, biogas plant, permission from Government of Tamilnadu for wheeling to the grid, Sensor based energy conservation for water level indication and 1486 LED bulbs fixed in the campus.

Listofdocuments

Sl.No.	Particular	Links
1.	<p><b>Solarenergy</b> E.G.S Pillay Engineering College has a practice of solar energy generation to conserve the energy. Solar power generation in the campus is 200 KW. Total installed power in institution is about 200 KW in that 150 KW power generated grid connected roof top solar power generation under Lease cum Power Purchase Agreement (PPA) scheme. Solar power contribution is 30 percent in the total connected load in campus.</p>	<a href="#">Click Here</a>
2.	<p><b>Biogas Plant:</b> E.G.S Pillay Engineering College has bio gas plant (dome biogas plant), which is situated nearby Boy's hostel. It produces gas. It saved the expenditure spent on LPG and also produce green energy to reduce the waste. Fixed dome bio gas plant has the capacity of 50m<sup>3</sup>. The main aim of construction of the bio gas plant is to collect the digestible food waste as well as human excreta from the two hostels. And the waste collected from the hostel is dumped into the plant and the bio gas is produced. The main feed of plant is from cow dung and food waste. The specialty of this bio gas plant is that, it is covered with tarpaulin (poly urethane coated nylon material). The depth of the plant is 18 feet with diameter of 23 feet. and the capacity is about 15 m<sup>3</sup>. The biogas produced this plant is used as a fuel for cooking in hostel.</p>	<a href="#">Click Here</a>
3.	<p><b>Wheeling to the Grid:</b> E.G.S Pillay Engineering College having 150 KW Solar power plant at roof top of academic blocks to reduce the electricity power supply. This leads to reduction in carbon foot print. Grid interconnection of PV power generation system has the advantage of effective utilization of generated power because there are no storage losses involved.</p>	<a href="#">Click Here</a>
4.	<p><b>Sensor Based Energy Conservation:</b> E.G.S Pillay Engineering College has installed sensor-based energy monitoring and control systems, automatic water level controller for energy conservation. Automatic water level controller has installed in the campus reduced the water wastage and save water. Once the level of water in the tank reduced, automatically controller will switch on the motor to fill it and cut of, when the water level reaches</p>	<a href="#">Click Here</a>

	the desired level.This practice has helped to implement the energy conservation.	
5.	<p><b>Use of Bulbs/ Power Efficient Equipment:</b>  E.G.S Pillay Engineering College has the total lighting load 150 KW in that 60 Percentage lighting load is based on LED LIGHT. They are used as at street light, conference halls, classrooms and corridor of the building, office rooms etc. The entire conventional type street light of the institution has been replaced with LED light.</p> <p>The Institution has taken initiative to replace old model Air Conditioner to New model which has Energy Conservation rating with 5 Star/ 3 Star BEE ratings. This practice helps to conserve energy.</p>	<a href="#">Click Here</a>
6.	<p><b>Policy document:</b>  Policy document on alternate source of energy and energy conservation available in HR policy book.</p>	<a href="#">Click Here</a>
7.	<p><b>Renewable Energy Club Activity</b>  Renewable energy club organized Energy conservation and safety measures lectures</p>	<a href="#">Click Here</a>