

## Criterion 5.2.1: Energy Conservation and Use of Alternate Sources of Energy

Government College Sanjauli has undertaken systematic and progressive measures to promote **energy conservation and the use of alternate sources of energy**. The institution has adopted a sustainable energy management approach to reduce dependency on conventional electricity sources and minimize its carbon footprint.

As documented, the college has **installed solar power plants** on the campus and is continuously expanding solar infrastructure to meet energy requirements. Simultaneously, the institution has **replaced conventional bulbs and tube lights with LED lighting systems**, which are energy-efficient and long-lasting. These initiatives are supported by official invoices and documentary evidence related to the purchase and installation of solar panels and LED lights.

The college follows a clearly defined **Energy Conservation Policy**, which emphasizes responsible energy usage, adoption of renewable energy, reduction of wastage, and promotion of environmentally sustainable practices among students and staff. In addition, digital platforms such as emails and WhatsApp are used extensively for official communication, thereby indirectly contributing to energy and resource conservation.

### Justification for Energy Conservation Measures

The effectiveness of energy conservation initiatives is reflected in the **fluctuating and moderated electricity consumption patterns** observed during the academic session 2024–25. The gradual installation of solar panels and replacement of conventional lighting with LED systems have contributed to **reduced electricity expenses during several months**, particularly during periods of optimal solar utilization.

Lower electricity bills during months such as **July and August 2024** indicate the positive impact of renewable energy usage and energy-efficient infrastructure. Although higher bills in peak winter months (November–January) are attributable to increased heating and lighting requirements, the overall trend demonstrates **institutional efforts toward energy optimization and sustainability**.

These measures collectively validate the college's commitment to **energy conservation, financial efficiency, and environmental responsibility**, fulfilling NAAC's qualitative and quantitative expectations under this metric.

### Table 1: Hostel Electricity Bills (Session 2024–25)

S. No.	Month & Year	Electricity Bill Amount (₹)
1	April 2024	52,222
2	June 2024	43,769
3	July 2024	29,796
4	August 2024	13,000
5	September 2024	21,446
6	October 2024	25,458
7	November 2024	44,543
8	January 2025	68,027

**Table 2: College Electricity Bills (Session 2024–25)**

S. No.	Month & Year	Electricity Bill Amount (₹)
1	April 2024	22,876
2	June 2024	21,295
3	August 2024	20,140
4	September 2024	42,020
5	October 2024	69,759
6	November 2024	59,367
7	December 2024	61,600
8	January 2025	71,980
9	February 2025	32,080

### **Overall Outcome :**

During the session 2024–25, the institution achieved a **75.10% reduction in hostel electricity expenditure** during optimal months and an **11.96% reduction in academic block electricity consumption** through the adoption of **solar energy systems and LED lighting**. These measurable reductions reflect effective implementation of **energy conservation and alternate energy initiatives** in alignment with NAAC sustainability benchmarks.

**(1) Policy documents of Institution:**

- **Alternate sources of energy and energy conservation measures:**  
**[https://gcsanjauli.edu.in/files/our\\_guiding\\_principles/energy.pdf](https://gcsanjauli.edu.in/files/our_guiding_principles/energy.pdf)**

**Policy for Energy Conservation at Government College Sanjauli**

As a responsible institution, Government College Sanjauli recognizes the importance of energy conservation for the sustainable development of our planet. To contribute towards this goal, the college has formulated the following policy for energy conservation:

**Energy Audits**

Regular energy audits will be conducted at the college to identify areas where energy consumption can be minimized. The audit will cover all areas of the college, including classrooms, offices, laboratories, and common areas.

**Efficient Lighting**

Efficient lighting solutions such as LED lights will be installed in classrooms, halls, and other areas. The lights should be turned off when not in use, and natural light should be utilized during the day.

**HVAC**

Heating, ventilation, and air conditioning (HVAC) systems will be regularly maintained to ensure they are working efficiently. Temperature control will be optimized for energy conservation, and systems will operate only during college hours.

**Renewable Energy**

The college will explore the maximization of use of renewable energy sources such as solar power to reduce dependence on conventional sources of energy. The college will also consider the installation of more solar panels to generate electricity.

**Awareness Programs**

The college will organize awareness programs to educate students and staff about the importance of energy conservation. These programs will focus on simple steps that can be taken to conserve energy in daily life, such as turning off lights and unplugging electronic devices when not in use.

**Monitoring and Reporting**

The college will monitor energy consumption on a regular basis and report progress towards energy conservation goals to the concerned authorities.

Government College Sanjauli is committed to implementing this policy for energy conservation. By adopting sustainable practices, we hope to contribute towards a greener and more sustainable future. We urge all students, faculty, and staff to support this initiative and work towards a more energy-efficient college.

  
Principal  
Govt. College Sanjauli  
D.O. Sanjauli  
Muzaffarpur, Bihar-845124

## Documents Enclosed as Documentary Evidence

### Invoice of Solar Power Plant

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**Centre of Excellence**  
**Government College Sanjauli, Shimla-6 (H.P.)**  
Site: www.gcsanjauli.com Email: principalsanjauli@gmail.com  
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Vr. No. 04/20

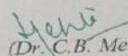
No. -COE-GCS-RUSA-A-18- Dated: 24.02.2021

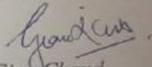
**FUND BILL FORM**

SN	Name	Particulars of Payment	Amount	Remark
1	Project Officer, Himurja, Shimla. Distt. Shimla	Installation of two P/I of 25 kwp Solar Power Plant (Grid Connected) at Govt. Boys Hostel, Govt. College, Sanjauli, Shimla-6.	1470000/-	Cheque No. 000043 date: 23.02.2021
<b>G. Total:</b>			<b>1470000/-</b>	

(Rs. Fourteen Lac Seventy Thousand Only)

Passed/verified for payment of Rs. 1470000/- out of A/C No. 206000110014707 through cheque for above installation work out of (RUSA-Account). Payment is being released through Cheque because there is some error in Vendor's Account detail in PFMS.

  
**(Dr. C.B. Mehta)**  
Principal

  
**Dr. Gian Chand**  
Co-ordinator. (RUSA)

  
**Dealing Assistant**  
A/C No- RUSA  
24/02/2021

### Alternate sources of energy and energy conservation measures

In order to conserve energy and reduce pressure on available resources we are progressively installing solar panels in the college campus and replacing existing bulbs and tube lights with



LED lights. Solar panels and LED Lights

*B. B. Singh*  
Principal,  
COE, Govt. College  
Sanjauli, Shimla-6