Metric No.- 7.1.6

Report of Energy Audit

Energy Audit

Certificate

ENERGY AUDIT

Academic Year 2020 - 2023

This is to certify that

CHHATRAPATI SHAHU JI MAHARAJ UNIVERSITY
Kanpur, Uttar Pradesh

has achieved the energy uses standards for the learning spaces with least impact on environment during the Green University Audit - 2020-23.

This Certificate is issued on the bases of Green University Audit Report 2020-23

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22-12-2022
Virendra Rawat
Director, Green Mentors

GREEN MENTORS

GM/EYA/2022/025/E1

ENERGY USES & SAVING PRACTICES

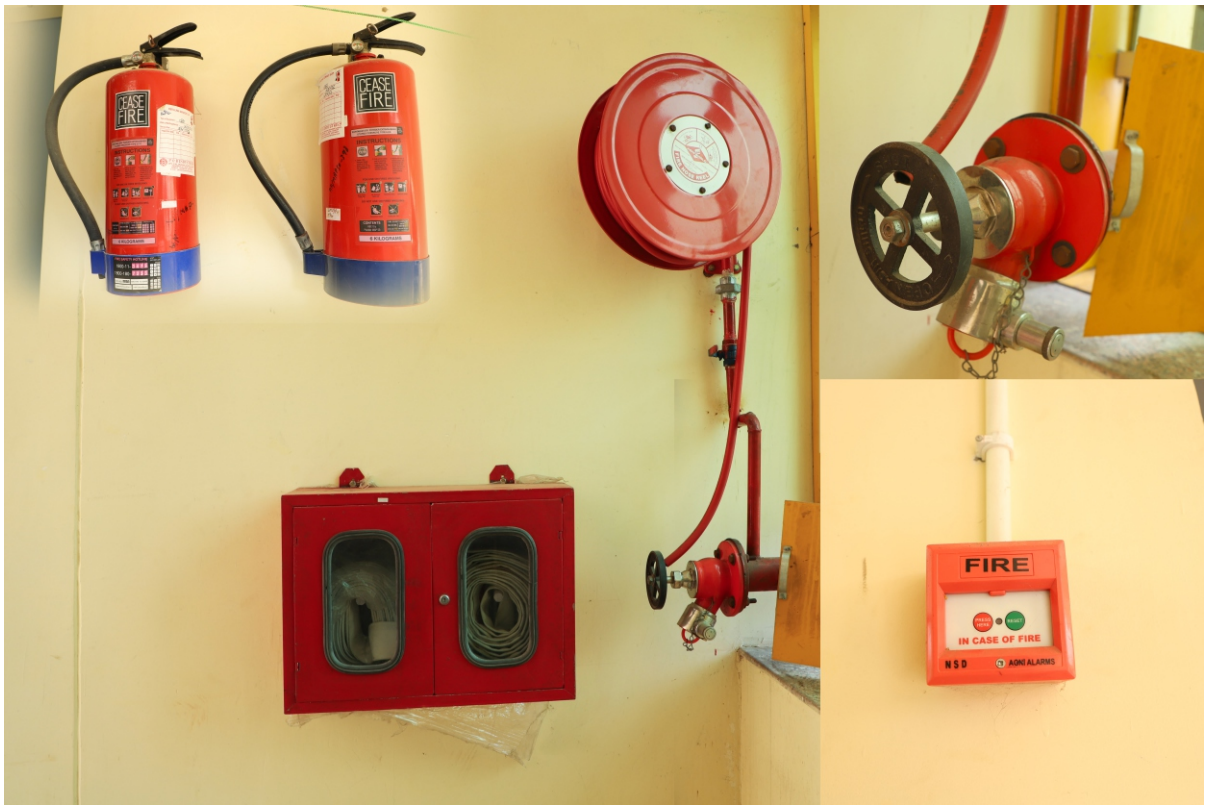
1. Ozone Depleting Substances

1 2 3 4 5 6 7 8 9 10

Ozone-depleting substances (ODS) are synthetic chemicals used worldwide in a wide range of industrial and consumer applications.

Ozone-depleting substances are chemicals that destroy the earth's protective ozone layer. These substances' main uses were refrigeration and air conditioning equipment and fire extinguishers.

CSJMU has procured refrigerators and air conditioners, fire extinguishers, foam, and aerosol propellants that have minimum impact on Ozone Layer Depletion.



ENERGY USES & SAVING PRACTICES

2. Energy Efficient Lighting Fixtures

1 2 3 4 5 6 7 8 9 10

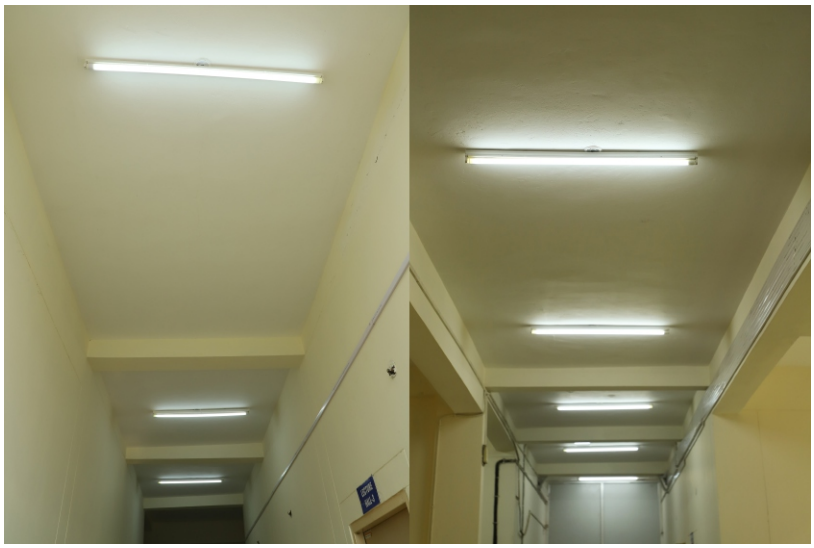
It has been proven repeatedly that natural light is the best solution for reading or studying. Therefore, CSJMU uses natural lights as much as possible to get the best learning outcome. Energy efficient lighting uses more illumination from fewer power lights by replacing high power consumption lights like incandescent and high discharge lamps.

LED lighting provides a safe, secure & energy-efficient environment on campus at all times. LEDs also reduce the cost of operation while satisfying the needs of faculty members and students who can appreciate the benefits of eco-friendly solutions.

LEDs also provide outstanding durability in environments that can place an incredible amount of stress on light bulbs and lighting fixtures, such as a university campus.

Due to the high-quality energy efficiency, LED lighting allows universities to save significant money on repairs, operating costs, and maintenance costs. When compared to a traditional light bulb, LED light bulbs consume less than half the energy that the traditional light bulb.

CSJMU has installed LED Lightening & Fixtures instead of old Lightning that, reduces the environmental impacts associated with energy use



ENERGY USES & SAVING PRACTICES

3. Energy Efficient Fans

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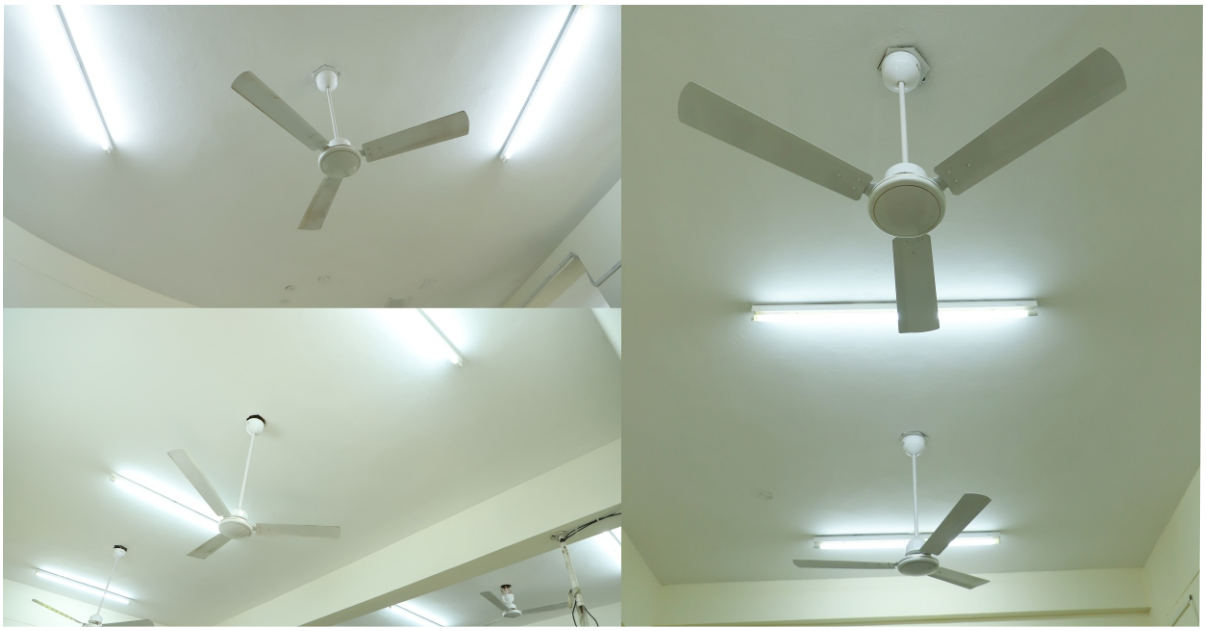
CSJMU has installed Energy efficient Fans and Air Conditioners instead of High Energy Consuming Fans and Air conditioners that reduce the environmental impacts associated with energy use.

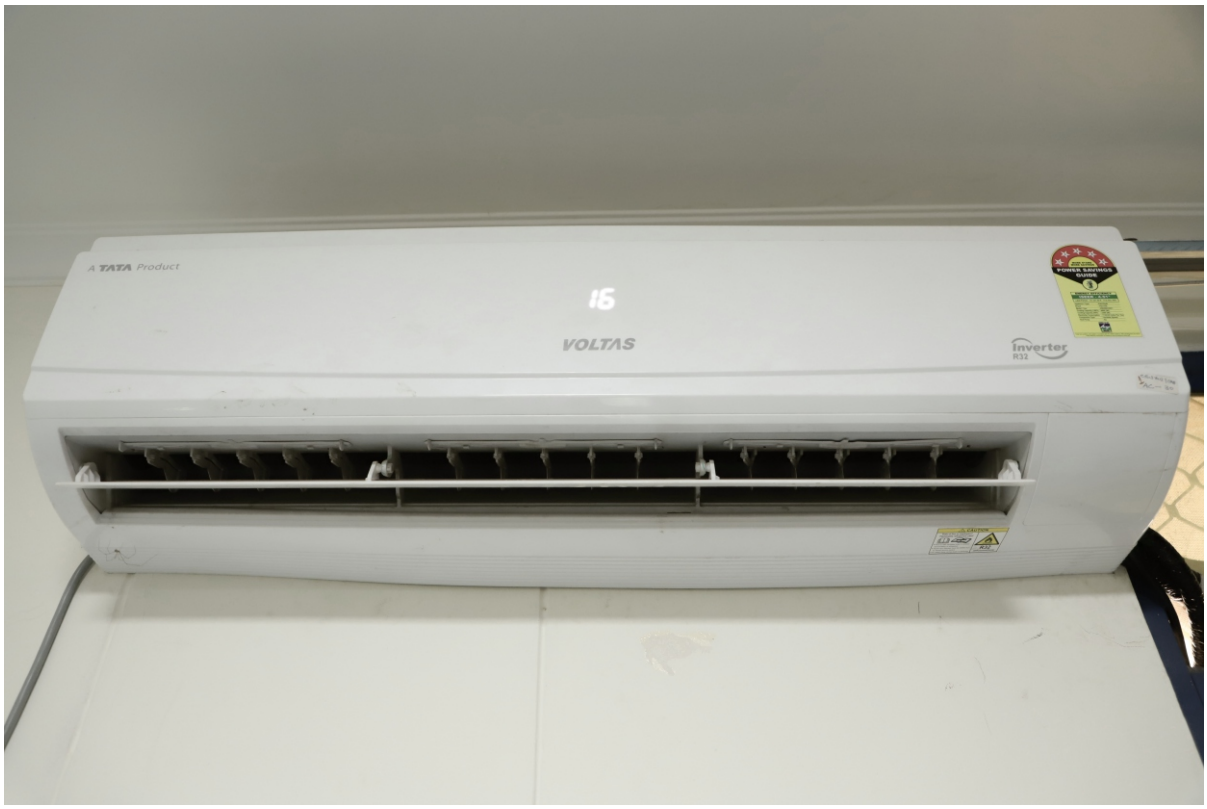


4. Energy Efficiency in Appliances & Equipment

Using energy-efficient appliances minimizes exploiting natural resources, such as natural gas, oil, coal, and water. Energy efficiency works to enhance the conservation of these resources as a way to achieve sustainable development.

Modern electronic appliances, such as freezers, ovens, stoves, dishwashers, clothes washers, and dryers, use less energy than older appliances. Installing STAR-rated electronic appliances significantly reduces energy consumption.

CSJMU has replaced energy-efficient Electronic Appliances & equipment instead of High Energy Consuming Appliances that reduce the environmental impacts of energy use.



ENERGY USES & SAVING PRACTICES

5. Energy Sub-Metering

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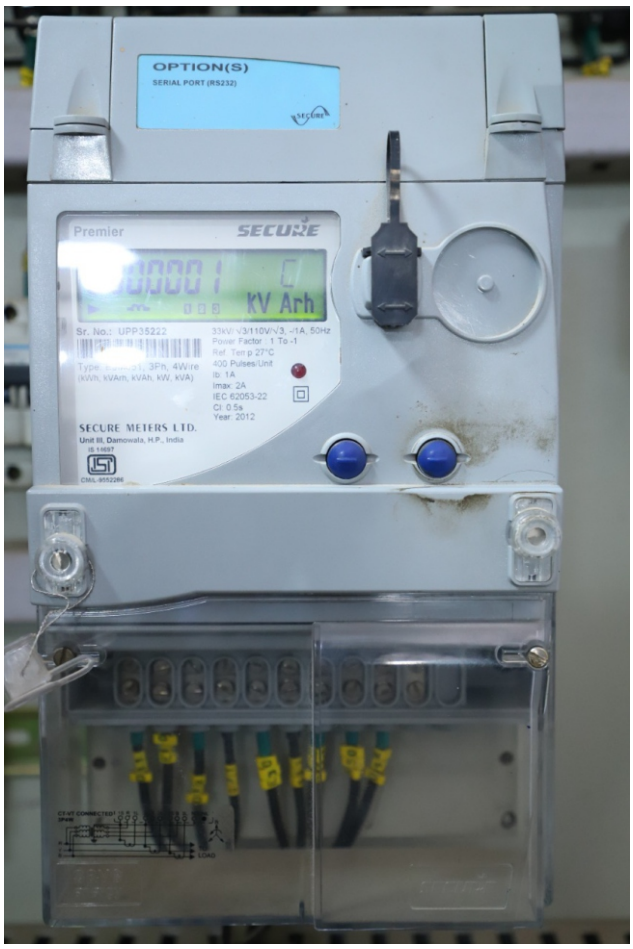
Submetering is an efficient method of determining the unit of energy in every block of the University. In addition, this process helps in taking corrective measures.
CSJMU practices continuous energy use monitoring through sub-metering and aspirate metering of each learning space, residential and open space throughout the year towards achieving reasonable energy use, which inspires the teaching-learning community to save energy in their day-to-day benefits.



ENERGY USES & SAVING PRACTICES

6. On-Site Renewable Energy

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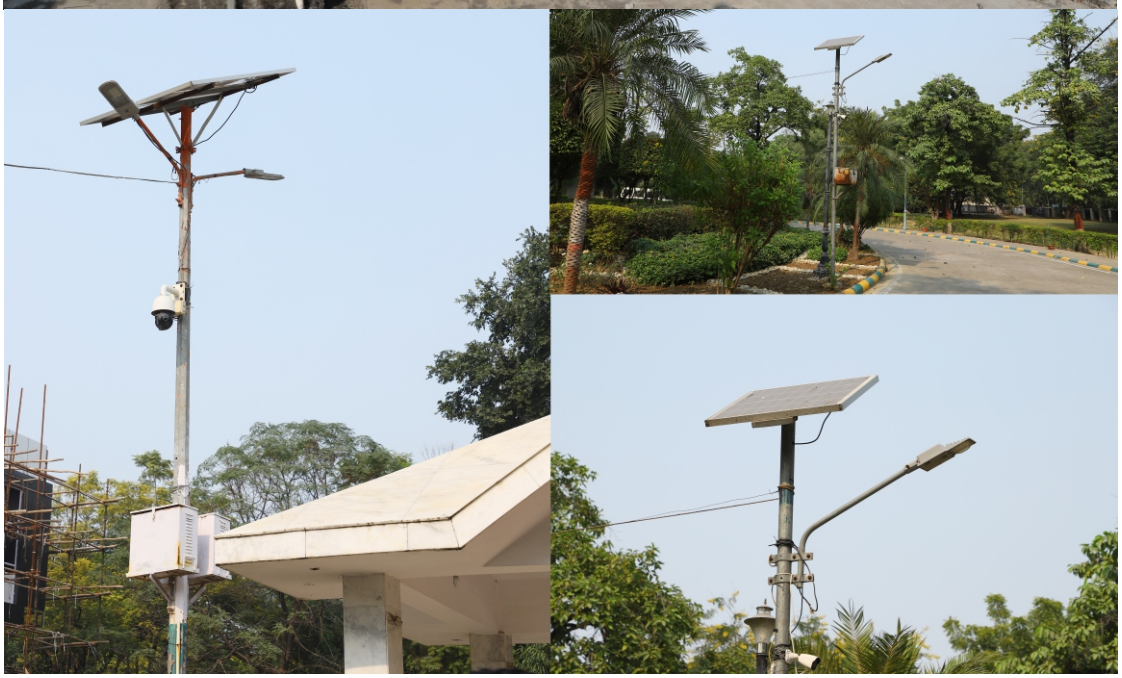
On-site renewable energy means renewable sources, such as wind, solar, and co-generation, generated on the University campus, thereby relieving reliance on the grid, reducing global warming, and improving the teaching-learning community's health.
CSJMU has installed a 2 MW Solar power plant as an on-site Renewable Energy Source; however, it encourages the student community to save energy to minimize the environmental impacts of using fossil fuels.



ENERGY USES & SAVING PRACTICES

7. Solar Water Heating Systems

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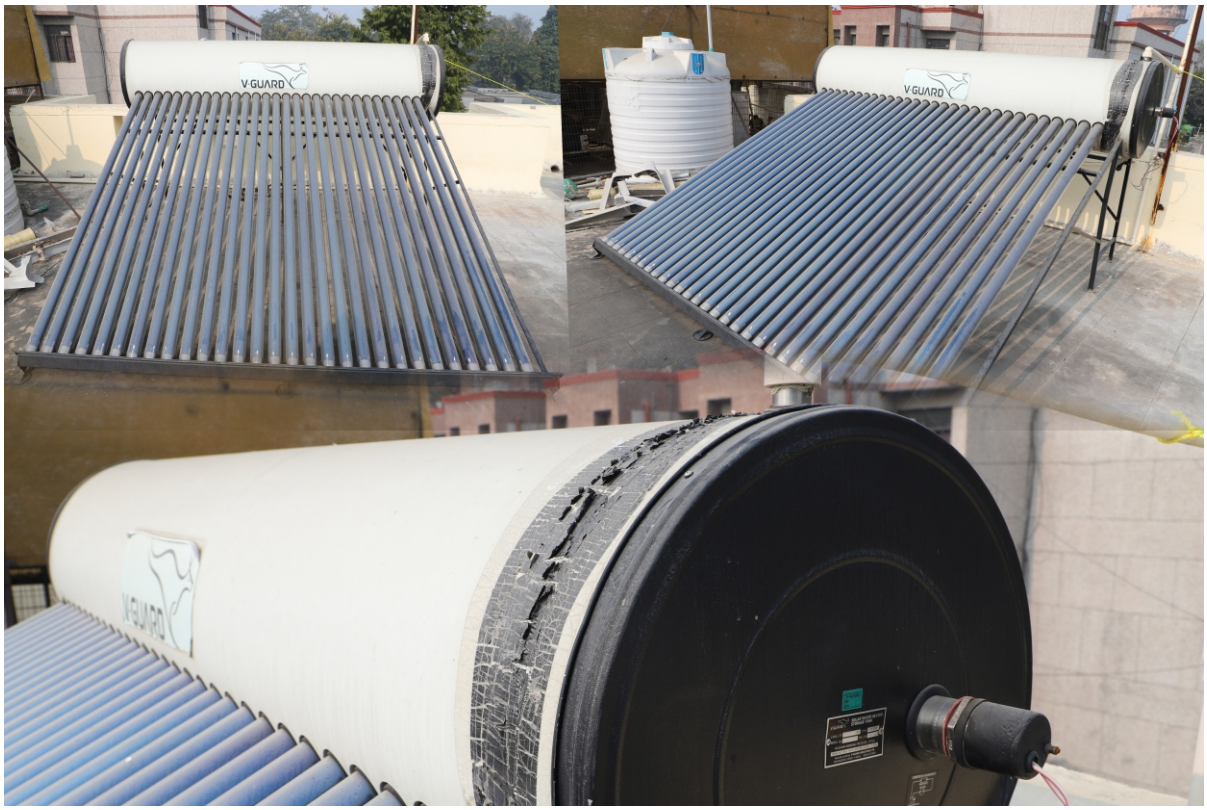
The Solar water heating system is a device that helps heat water using the SUN's energy with zero CO2 emission and No consumption of fossil fuels.
CSJMU has installed a Solar water heating System in all its hostel facilities that minimize the environmental impacts of using fossil fuels.



ENERGY USES & SAVING PRACTICES

8. Distributed Power Generation

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Distributed generation is used when electricity is generated from renewable energy sources near the point of use, like rooftop solar photovoltaic units, instead of centralized generation sources from power plants.

DG systems have several advantages, including reduced transmission and distribution losses, improved grid stability and security, and reduced environmental impact.

CSJMU has a well-designed distributed power generation system that reduces transmission and distribution losses, improves grid stability and security, and reduces environmental impact.

Cumulative Score	75/80