



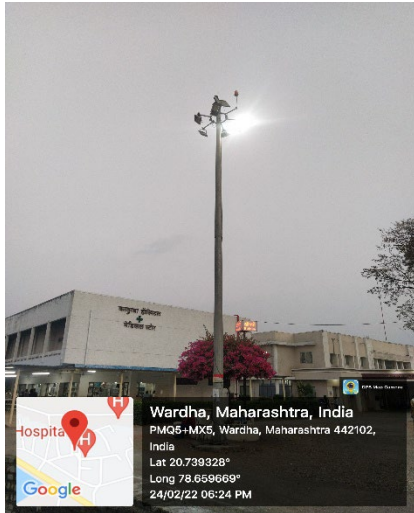
**MAHATMA GANDHI INSTITUTE OF MEDICAL SCIENCES, SEVAGRAM**  
**Environmental Consciousness and Sustainability**

We are consumers of High tension (11KV) supply from MSEDCL.

A brief summary of our system is as follows: -

Equipment name	Capacity	Quantity	Location
Transformer	630 KVA	01	MCH wing & Auditorium
Transformer	500 KVA	03	Substation and hospital, college premises
Generator	320 KVA	01	Near Substation
Generator	200 KVA	02	Medicine Dept
Generator (auto-mode)	125 KVA	01	Near AC plant
UPS	120 KVA	01	Cath lab
UPS	100 KVA	01	OT
UPS	60 KVA	01	MCH wing
UPS	30 KVA	01	Medicine ICU
UPS	20 KVA	01	Medicine ICU

- **Energy conservation with use of LED bulbs:** Management took a decision to change lights, fans, street lights, halogen lights etc to save power. 25 tons of CO<sub>2</sub> was saved per month that can amount to 300 tons per annum. Apart from installation of rooftop solar, solar water heater and solar street light we have replaced all power consuming tube light fittings, fans, water pumps and OT lights with new energy efficient 5-star ceiling fans, inverter model ACs, Screw chillers, LED, street light and high mast and LED OT lights



- **Solar panels:**

1. **Rooftop solar generation (PV system):** We have a photovoltaic (PV) system that has its electricity-generating solar panels mounted on the rooftop of hospital building

Unit capacity	178 kWp/346488 kWh
Location	MCH wing Palliative care OT Microbiology laboratory
Purpose	To integrate the additional power supply generated through the photovoltaic (PV) system with the main power supply to accommodate daily power supply need.




MGIMS has installed **solar water heaters** in all the hostels, residents' hostels, and also in the KHS peripheral training centers at Anji and Bhidi in order to save energy.

<u>Unit capacity</u>	5500 L/day
<u>Location</u>	Hospital premises Hostel premises
<u>Purpose</u>	Daily hot water consumption as per hospital need



**Electric safety audit**

The institute outsources the audit of electric safety to outside agencies every year and takes appropriate action based on these reports. Last year, Likasan Consultancy Services carried out this audit.



**Likasan Consultancy Services**  
Engineering | Efficiency | Energy  
Global Knowledge – Local Support

**Detailed Electrical Safety Audit Report**

**For**  
**Kasturba Health Society's**  
**Mahatma Gandhi Institute Of Medical Sciences**

**Email: [engsectio@mgims.ac.in](mailto:engsectio@mgims.ac.in)**

**OFFER NO.:** EMD:KHS:WO:2020-2021 /2555

**Dated:** 27/01/2021

**Prepared By**  
**Mr. C.R.Dad**  
**EA 3099**

**Certified Energy Auditor**  
**MEDA Empanelled Energy Planning & Auditing Firm**

**Date 17/04/2021**

CHANDRAPRA  
KASH  
RAMVILAS DAD

Digitally signed by  
CHANDRAPRAKASH  
RAMVILAS DAD  
Date: 2021.04.19  
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- Snehil Nagar , Sewagram Road , Wardha – 442001.
- 1003-1004 , Mahaveer Residency , Kondawa ( Budruk ) , Pune – 411037.



महाराष्ट्र शासन

सत्यमेव जयते

विद्युत निरीक्षक विद्युत निरीक्षण विभाग यांचे कार्यालय  
उद्योग, ऊर्जा व कामगार विभाग सिव्हील लाईन  
सा. बां. परिसर, वर्धा, पिनकोड-४४२००१



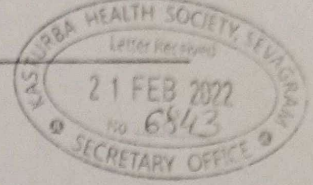
स्वातंत्र्याचा अमृत महोत्सव

ईमेल: eiwardha.nrg-mhb@gov.in

दुरध्वनी क्र.०७१५२ - २४३३७३

जा.क्र./वि.नि./वर्धा/ तांत्रिक / 137 / २०२१

दिनांक: 21/02/2022



पति.

MGIMS,

कस्तुरबा हेल्थ सोसायटी,

सेवाग्राम, वर्धा,

ता./जि. - वर्धा.

संदर्भ :- १. आपले पत्र क्र. EMD:KHS:२०२१-२२/३३४८ दिनांक- २७.०१.२०२२.

२. या कार्यालयाचे निरीक्षण दिनांक- ३०.०४.२०२१.

३. या कार्यालयाकडून निर्गमित करण्यात आलेले ज्ञापन. जा.क्र./वि.नि./वर्धा/ तांत्रिक /४०४/२०२१, DI- १०.०५.२०२१

४. आपणांकडून या कार्यालयास प्राप्त झालेला वृटीपुर्तता अहवाल पत्र क्र. EMD:MGIMS/e/Gen/१२३६ दिनांक- १८.०५.२०२१.

उपरोक्त पत्रान्वये आपण विनंती केल्यानुसार MGIMS, कस्तुरबा हेल्थ सोसायटी, सेवाग्राम, वर्धा, येथील विद्युत संचमांडणीची तपासणी या कार्यालयामार्फत दिनांक- ३०.०४.२०२१ रोजी करण्यात आले होते. निरीक्षणादरम्यान आढळून आलेल्या वृटीबाबत संदर्भ क्र. ३ अन्वये या कार्यालयाद्वारे ज्ञापन पत्र निर्गमित करण्यात आले होते. तत्पश्चात संदर्भ क्र. ४ अन्वये आपल्याकडून त्याबाबतचा वृटीपुर्तता अहवाल या कार्यालयास प्राप्त झाला. तसेच संदर्भ क्र. १ अन्वये आपणाकडून विद्युतीय सुरक्षितता प्रमाणपत्राची मागणी करण्यात आली आहे. सबब विज कायदा २००३ व केंद्रीय विद्युत प्राधिकरण विनियम २०१० च्या नियमानुसार खालील अटीचे अधीन राहून सद्यस्थितीत आपली संचमांडणी सर्व साधारणपणे सुरक्षित असल्याबाबत प्रमाणित करण्यात येत आहे.

1. Electrical safety & maintenance in charge person (authorised) shall be appointed by user department for maintenance of electrical installation, addition/alteration of load/wiring.
2. Wiring Diagrams/single line diagrams of all electrical installations along with load details shall be displayed at electric panel room.
3. Concerned electrical personal/contractor shall always ensure that the wires from respective circuit are capable of withstanding intended load.
4. Identification of the incoming & outgoing supply circuit to be always displayed on every distribution box.
5. For protection purpose RCCB (Residual Current Circuit Breaker) of proper rating shall be installed in every circuit & kept operational.
6. Refilled Fire extinguisher's shall always be kept near the electrical panel/board.
7. All the electronics/medical equipments/Air Conditioners installed which are operational 24\*7 hrs continuously shall be always operated under the supervision of operator of that field. Also the maintenance of the equipments shall be periodically done.
8. Diesel Generators shall be kept operational, if installed along with necessary Charging permission & Safety Procedures.
9. All the electrical equipments shall be earthed efficiently. Records of the (Earth-pit wise) Earth Resistances shall be maintained periodically.
10. This certification is considered invalid/cancelled for any addition/alteration made in the electrical load/system after the inspection by this office.

*Secretary*

g/c EMD

*(A. D. V. N. K. R.)*

(अ. दि. व. न. क. र.)

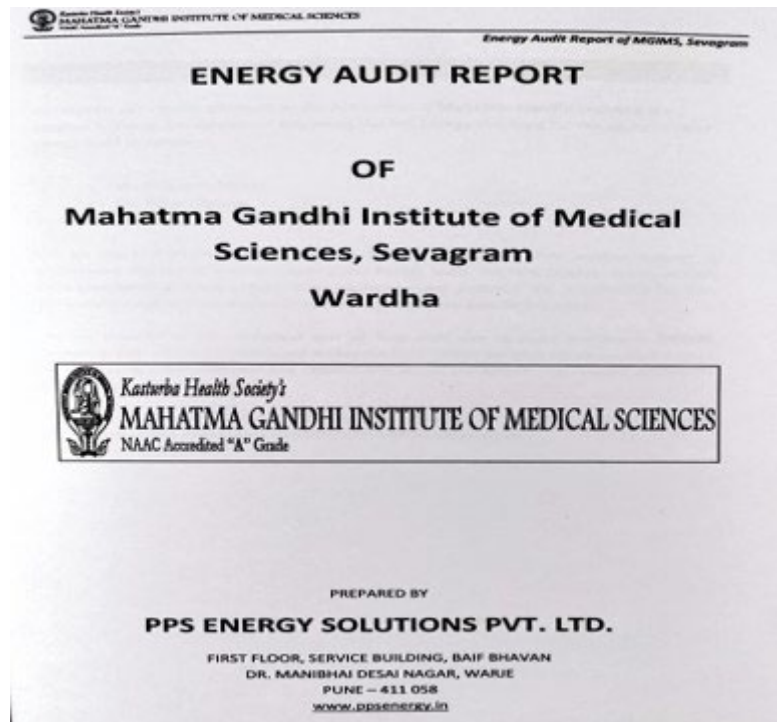
विद्युत निरीक्षक

विद्युत निरीक्षण विभाग

वर्धा.

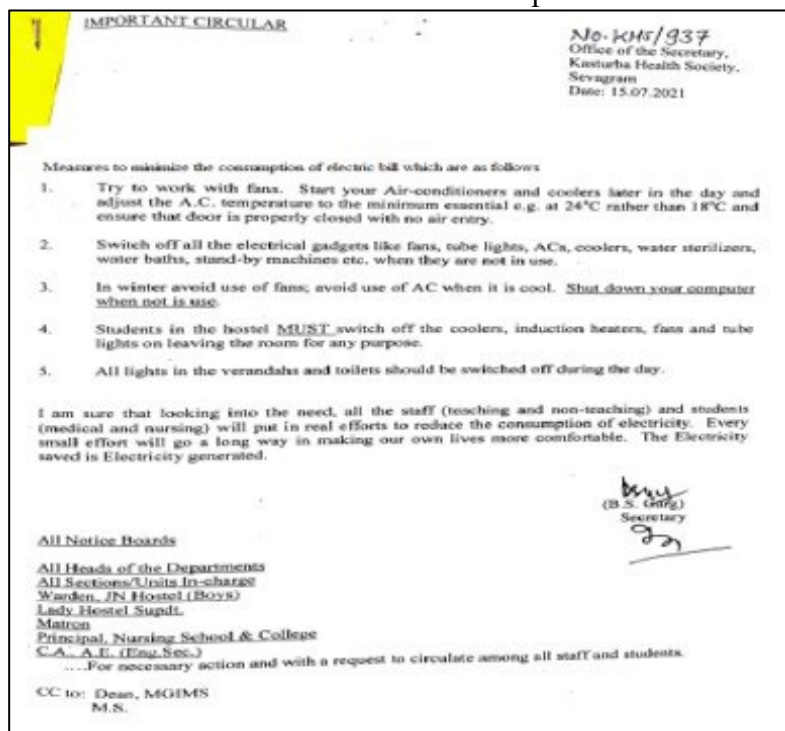
## Energy saving audits

The institute outsources the energy audit to outside agencies every year and takes appropriate action based on these reports. Last year, PPS Energy Solutions Pvt Ltd carried out this audit.



## Energy saving measures

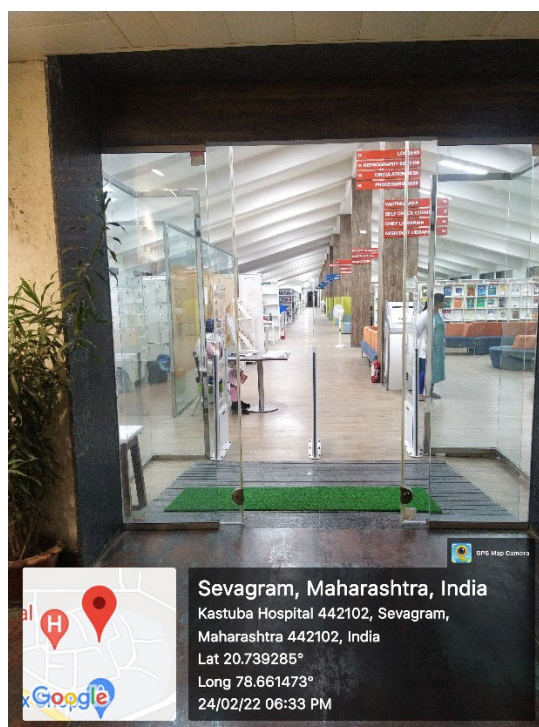
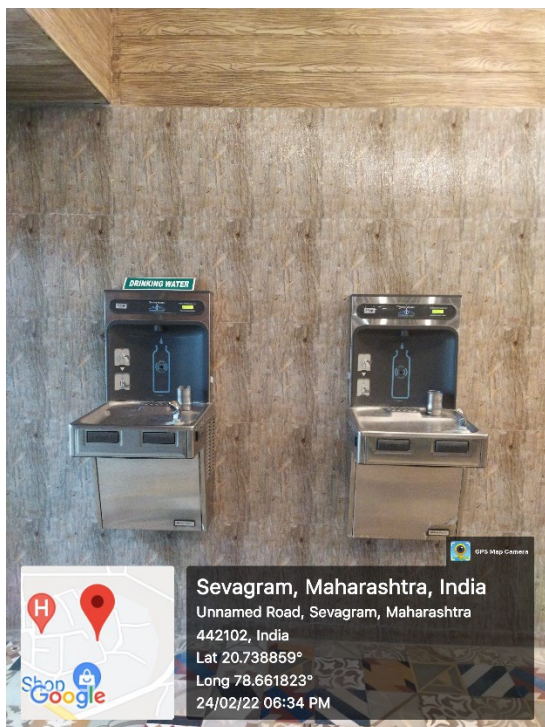
Every summer, the Secretary office issues circulars to all homes and offices to conserve energy and restrict use of air conditioners. Here is a sample of the circular



**Wheeling to the Grid:** The energy output of the solar panel is utilized for the power requirements for the institution and the power output of the solar panel are also connected to the power grid of the MSBDCL where the excess power produced by the solar panels are supplied to the grid for which subsidy has been provided by the MSBDCL for the power consumption of the institution. The 11KV solar panel is to meet out the power requirement of the institution. Lower range equipment like light, fans etc. are run by using this power.

**Sensor based energy conservation:** We have advanced sensor-based hand washing machine installed in our library as well as sensor-based doors at library and operation theaters.

Library	2
OT	2



**Biogas plant:** We have biogas plant installed in KHS associated Arogyadham and kitchen. It was installed on 27<sup>th</sup> June 2012 and running for the past 10 years. Biogas operated kitchen is providing nutritious vegetarian naturopathy diet to the patients



## Fire safety Drills

A fire safety officer conducts mock drills and trains all teaching and non teaching faculty and staff about fire safety guidelines and guidelines on handling electrical fires.

