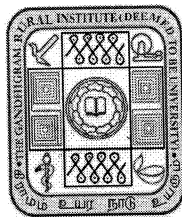


# **GRI ENERGY POLICY**



**THE GANDHIGRAM RURAL INSTITUTE**

**[DEEMED TO BE UNIVERSITY]**

**MINISTRY OF EDUCATION, GOVERNMENT OF INDIA**

**GANDHIGRAM – 624 302**

**DINDIGUL**

**TAMIL NADU**

## ENERGY POLICY

<b>Name of the Institute</b>	THE GANDHIGRAM RURAL INSTITUTE - DEEMED TO BE UNIVERSITY
<b>Year of Implementation</b>	2016
<b>Type of Policy</b>	<b>Energy Policy</b>

### 1. Purpose


An educational institution's energy policy is a strategic framework designed to guide energy-related decisions and actions to achieve sustainable development goal. GRI energy policy aims to reduce energy costs, minimize environmental impact, and promote the integration of renewable energy sources and reduce the carbon foot print. By implementing comprehensive energy-saving strategies, educational institutions can significantly enhance their learning environments, operational efficiency, and environmental sustainability. A well-defined energy policy can also contribute to long-term financial stability by reducing utility expenses and enabling the allocation of resources toward the core educational objectives of the institute to reduce the per capita energy consumption. In addition, the GRI energy policy underscores the importance of energy literacy, cultivating a sustainable campus culture among students and staff, and integrating energy management principles into the academic curriculum. This approach aligns seamlessly with the institution's mission to develop informed, responsible citizens who are well-prepared to address the evolving energy demand.

### 2. Scope

The Energy Policy of GRI outlines the comprehensive approach to managing energy consumption and promoting sustainable practices within the campus environment to achieve "Smart Grid GRI". This policy applies to all buildings, facilities, and operations associated with the institution, including all the stakeholders of the institution.

### 3. Policy Statement

GRI stakeholders are expected to familiarize themselves with the institute's energy conservation and efficiency initiatives & integration of the green energy usage, which are governed by GRI's comprehensive energy policy. These initiatives are designed to promote sustainable practices and optimize energy utilization.

  
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### 3.1. Energy Efficiency:

- ✓ **Optimize energy consumption:** Implement strategies to minimize energy usage across all campus operations, while maintaining comfort and productivity.
- ✓ **Enhance energy performance:** Conduct regular energy assessments to identify and address areas of inefficiency in buildings, equipment, and systems.
- ✓ **Modernize facilities:** Upgrade facilities with state-of-the-art energy-efficient technologies and practices.
- ✓ **Optimize HVAC systems:** Implement advanced HVAC systems and controls to ensure efficient and effective heating, ventilation, and air conditioning.
- ✓ **Reduce lighting energy consumption:** Install high-efficiency lighting fixtures and implement intelligent lighting control systems.
- ✓ **Water Pumping System:** Installation and utilization of energy efficient water pumping system (IR-International Energy Efficiency) with IoT based conditioning monitoring for the effective energy management.

### 3.2. Renewable Energy

- ✓ **Maximize renewable energy integration:** Explore and implement renewable energy sources, such as solar panels, wind turbines and bio systems, to meet a significant portion of the institution's energy needs.
- ✓ **Optimize renewable energy systems:** Ensure efficient operation and maintenance of renewable energy systems to maximize their performance and lifespan.
- ✓ **Integrate renewable energy into the campus grid:** Connect renewable energy systems to the campus grid to optimize energy self-sufficiency and reduce reliance on external sources.
- ✓ **Green EV charging station:** Green EV charging infrastructure to accelerate the EV adoption for the sustainable transportation.

### 3.3. Energy Management

- ✓ **Implement advanced energy management systems:** Utilize state-of-the-art energy management systems to monitor, control, and optimize energy consumption across the campus.
- ✓ **Conduct comprehensive energy audits:** Regularly conduct detailed energy audits to identify areas for improvement and track progress



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- ✓ **Optimize energy use in research facilities:** Develop and implement energy-efficient protocols and practices for research laboratories and facilities.

### 3.4. Transportation

- ✓ **Promote sustainable transportation options:** Encourage the use of cycling, walking, and carpooling among students, faculty, and staff.
- ✓ **Reduce the institution's transportation energy consumption:** Implement measures to reduce the energy consumption associated with campus transportation, such as optimizing fleet management, exploring electric vehicles, or implementing transportation demand management programs.
- ✓ **Utilization of EV Charging Station Infrastructure of GRI:** All the stakeholders of GRI are permitted to utilize the green EV charging station of GRI based on the availability.

### 3.5 Energy Efficiency in the Buildings:

- ✓ **Building Energy Management System (BEMS) :** To ensure the effective utilization of energy in the entire building through proper monitoring and control of the energy loads utilize natural lighting to reduce energy consumption towards lighting.
- ✓ **Incorporate sustainable design principles:** Ensure that new construction projects and renovations adhere to Energy Conservation Building Codes (ECBC) for better energy efficiency and sustainability.
- ✓ **Utilize high-performance building materials:** Choose building materials with superior energy efficiency and environmental performance to reduce the demand of HVAC appliances of the buildings.

The generic energy conservation measures to be followed in the campus:

- ✓ Efficient use of energy to save energy and to promote sustainability
- ✓ Promote the use of energy-efficient equipment to reduce energy consumption.
- ✓ Encourage the use of daylighting opportunities
- ✓ Promote the utilization of renewable energy resources
- ✓ Highly recommended to procure and utilize the high star rated appliances
- ✓ Turn off the instruments/appliances when not in use
- ✓ Motivate the key initiatives of energy conservation to the stakeholders of GRI
- ✓ Ensure the backup power supply for the effective productivity of GRI

- ✓ Promote the use of LED lamps for effective energy utilization

The Institute's energy policy will be subject to periodic review and revision to ensure its continued relevance and alignment with emerging best practices in sustainability and energy management. Its implementation will be rigorously monitored and evaluated to ensure that the desired outcomes are achieved.

#### **4. Effective Measures**

- ✓ Conduct a comprehensive assessment of potential energy conservation measures to identify suitable opportunities for implementation within the institution.
- ✓ Implement a regular program for evaluating appliance performance and energy efficiency to identify potential areas for optimization and ensure that equipment operates at peak efficiency.
- ✓ Conduct a comprehensive analysis of electricity consumption patterns using utility bill data. Establish a baseline energy consumption benchmark to serve as a reference for future energy conservation initiatives. Periodically reassess the benchmark and implement targeted strategies to reduce electricity consumption below the established baseline.
- ✓ Ensure the fluorescent-free campus through the replacement of end-of-life / fused existing lighting fixtures with LED lighting systems.
- ✓ All stakeholders of GRI are expected to actively comply with the institute's energy policy and contribute to the implementation of energy conservation measures. This collective effort will be instrumental in achieving the institution's sustainability objectives.
- ✓ Integration of renewable energy resources could promote energy self-sufficiency of GRI sustainably.
- ✓ Adhere to energy-efficient lighting load control using sensors and timers.
- ✓ Utilization of bicycles to promote the healthy and green campus initiatives of GRI

#### **5. Problem Solving**

- ✓ GRI Energy policy promotes Sustainable Development Goal No.7 "Ensure access to affordable, reliable, sustainable and modern energy for all" through the effective guidelines and regulations of the Bureau of Energy Efficiency (BEE), Ministry of Power, Govt. of India.
- ✓ Implementing a comprehensive audit program at the GRI Campus, encompassing environmental, energy, and sustainability assessments.

- ✓ Energy demand forecasting could ensure the effective financial management of GRI
- ✓ Dissemination of environmentally friendly ethos through seminars/workshops and conferences
- ✓ Create awareness and impart energy literacy to the stakeholders of GRI
- ✓ Promote the awareness of governmental schemes to cultivate a responsible future youth community.


#### 6. Responsibility

Ensuring the success of GRI's "Smart Grid GRI" Initiatives and the institute's energy policy will be the responsibility of the Power Sector Reform Committee of GRI. This committee will be chaired by the Vice-Chancellor, Registrar, Deans, Director IQAC, Warden of Boy's and Girl's Hostel, Department Heads, and Directors as Members and Coordinator Electrical Division as Convener. Additionally, faculty and student volunteers of M.Tech Renewable Energy and B.Voc. Renewable Energy programs will lend valuable support to the implementation of these initiatives of GRI.

Place: Gandhigram

  
Signature of the Head of the Institution

**Vice Chancellor**  
**Gandhigram Rural Institute**  
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