MITS

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE

(Deemed to be University under Section 3 of UGC Act, 1956)

CARBON MANAGEMENT AND GREENHOUSE GAS EMISSION REDUCTION POLICY

Policy Number	MITSU/SDG/CMGERP-2026/03
Effective Date	Oct 2026
Review Date	Oct 2028

SDG Mapping: SDG 7 – Affordable and Clean Energy; SDG 13 – Climate Action

1. Policy Statement

Madanapalle Institute of Technology & Science (MITS), Deemed to be University, is committed to measuring, managing and progressively reducing greenhouse gas (GHG) emissions associated with its campus operations. The University shall maintain a documented process for energy and fuel data collection, emissions assessment, prioritization of reduction measures, review of progress and retention of supporting records.

2. Objectives

- Establish an accountable and consistent process for identifying and monitoring operational GHG emission sources.
- Improve energy performance, promote appropriate renewable-energy use and reduce avoidable fuel consumption.
- Integrate practical low-carbon measures into buildings, generators, transport and institutional operations.
- Maintain verifiable annual records and use measured results to guide improvement plans.

3. Scope and Applicability

This policy applies to University-controlled academic, administrative, laboratory, library, hostel and common facilities and to University-managed transport and stationary fuel-consuming equipment. The operational boundary and reporting period shall be documented for each annual GHG inventory. Activities outside University operational control may be assessed separately when reliable data are available.

4. Emission Sources and Inventory Boundary

- Direct emissions: Fuel consumed in University-controlled diesel generators and vehicles, and any other controlled combustion sources; refrigerant leakage shall be included where records permit.
- Indirect electricity emissions: Electricity imported from the grid for University operations, recorded from utility bills or metering data.
- Other indirect emissions: Staff and student commuting, outsourced transport, travel, waste or procurement may be assessed separately when sufficient evidence exists, with the included categories explicitly disclosed.

The University shall avoid double counting. Solar electricity generated and used on campus, electricity exported and electricity imported from the grid shall be distinguished in reporting.

5. Existing Renewable-Energy Installation

The University has reported the following rooftop solar photovoltaic (PV) module installations:

Installation	Module quantity and rating	Rated DC capacity
Existing rooftop solar PV	478 modules × 315 W	150.57 kWp
Additional rooftop solar PV	404 modules × 620 W	250.48 kWp
Combined reported installation	882 modules	401.05 kWp

The 401.05 kWp figure represents installed module nameplate capacity, not annual electricity generation or a quantified carbon saving. The Electrical/Maintenance Section shall maintain commissioning records, generation-meter readings, export details and maintenance reports, and verify the operational status of each installation.

6. GHG Monitoring and Emission Reduction Process

6.1 Collection and validation of activity data

Designated sections shall collect monthly grid electricity consumption (kWh), solar electricity generation and use (kWh), diesel and petrol consumption (litres), and other measurable fuel or refrigerant data where applicable. Entries shall identify the month, source, measurement unit, responsible officer and supporting bill, register or log.

6.2 Baseline, calculation and reporting

An annual baseline shall be established from a clearly defined, verified reporting year. Emissions shall be calculated using the relevant activity data multiplied by appropriate, documented emission factors and converted to tonnes of CO_2-equivalent. Factor year, source, units, boundary, inclusions and exclusions shall be recorded with each assessment. Estimates shall be identified as estimates and not presented as measured results.

6.3 Reduction planning and review

The University shall prepare an annual improvement register specifying each proposed measure, responsible section, estimated or verified energy benefit, implementation status and supporting evidence. Priorities and reduction targets, where adopted, shall be based on available baseline data, technical feasibility, cost and approval by the competent authority.

7. Institutional Carbon-Reduction Measures

- Building and electrical energy: Assess LED lighting, efficient cooling, appropriate thermostat practices, ventilation, equipment maintenance, switching controls and reduction of unnecessary standby consumption.
- Solar energy: Maintain and monitor existing rooftop PV systems, promptly address performance issues and evaluate future renewable-energy projects subject to technical and financial approval.
- Diesel generators: Keep operating-hour and fuel-consumption logs; perform scheduled maintenance and avoid unnecessary test running while retaining statutory and safety requirements.
- University transport: Maintain fuel-use and trip records; promote route planning, preventive maintenance, vehicle occupancy and the progressive consideration of cleaner and more efficient vehicles during approved replacements.

Awareness and behavioural measures: Encourage faculty, staff, students and transport personnel to conserve energy through periodic communications, training and departmental participation.

8. Implementation, Responsibilities and Monitoring

Responsible section	Key responsibility
University Administration / Registrar	Approve institutional policy, resources and improvement priorities.
Electrical / Maintenance / Estate	Maintain electricity, solar PV, generator and building energy records; coordinate energy-saving measures.
Transport Section	Maintain vehicle inventory, fuel and maintenance records; report transport-energy measures.
SDG Cell / IQAC	Coordinate annual evidence review, monitoring summary and interdepartmental follow-up.
EEE / Mechanical / Civil Engineering	Provide technical support in assessments and improvement recommendations where requested.
Finance / Purchase	Preserve relevant procurement and fuel-purchase records, subject to administrative procedures.

The SDG Cell shall coordinate an annual review of submissions from the above sections. Inconsistencies and missing records shall be flagged for correction before figures or performance claims are released.

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9. Records and Supporting Evidence

Records may include utility bills, meter logs, rooftop solar commissioning and generation reports, DG fuel registers, University-vehicle fuel registers, maintenance reports, energy audits, approved upgrade proposals, completion photographs and annual monitoring summaries. Evidence shall be dated, retained by the responsible section and made available for institutional review in accordance with University procedures.

10. Awareness and Capacity Building

The University shall encourage awareness programs on energy conservation, renewable energy and responsible transport practices through the SDG Cell, relevant academic departments and student engagement units. Programme reports shall record the date, participants, activities and outcomes.

11. Policy Review and Amendments

This policy shall be reviewed every two years from its approved effective date, or earlier when applicable regulations, campus facilities, institutional priorities or monitoring findings warrant revision. Amendments shall be documented and approved through the prescribed University process.

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