



# MARIANO MARCOS STATE UNIVERSITY

Pursuant to Republic Act No. 11285, An Act Institutionalizing Energy Efficiency and Conservation, Enhancing the Efficient Use of Energy and Granting Incentives to Energy Efficiency and Conservation Projects, the Department of Energy is mandated to lead and ensure its implementation. The DOE conducted virtual energy audit and information drive during that time. This led to the review and reformulation of the University Guidelines and Policies on Energy Utilization, Conservation and Generation in February 2021.

Reiteration of the Policies and Guidelines are constantly made to remind and ensure University constituents follow these guidelines. Energy efficiency and conservation practices are enforced to all units and offices of the University. The use of higher energy efficiency appliances is encouraged to replace and upgrade existing ones. Further, upgrading of buildings must conform to the guidelines set t by the Energy Committee.

REITERATION OF POLICIES AND GUIDELINES THROUGH MEMOS  
ADDITIONAL POLICIES FOR ENERGY EFFICIENT PRACTICES



MARIANO MARCOS STATE UNIVERSITY  
Office of the President

MEMORANDUM No. 22-223

TO : All Employees and Students

THRU : Vice Presidents  
Deans  
Directors  
Heads of Unit

FROM : DR. SHIRLEY C. GRUPIS  
President

DATE : 27 June 2022

SUBJECT : Reiteration of Energy Efficiency and Conservation Practices

Pursuant to the Government Energy Management Program (GEMP) and energy conservation and utilization policies of the University, you are hereby reminded to observe the following Energy Efficiency and Conservation Practices:

**A. Airconditioning Units**

1. Airconditioning units are to be switched on at 8:00 AM and switched off at 5:00 PM, except for computer and laboratory classes.
2. Airconditioning units are to be switched off or set at fan mode during lunch break (12:00— 1:00 PM).
3. Check that the thermostat is working and set to not lower than 25°C (room temperature).
4. Ensure that airconditioned offices / are well-insulated from direct sunlight or heat. Automatic door closers may be installed.
5. Air conditioning units should be cleaned and maintained periodically.

**B. Electric Fans and Electric Pumps**

1. Electric fans must be switched off when not in use. Electric fans in classrooms must be switched off after every class.
2. If cooling is desired in one direction only, the oscillator must be locked where the fan is needed, except for ceiling fans.
3. If it is comfortable enough, the fan must be set to "low"
4. Exhaust fans must be switched off while the ACUs are in operation (where applicable).
5. Agricultural and other pumps (electric) should be properly maintained.



## MARIANO MARCOS STATE UNIVERSITY

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#### C. Lighting (Illumination)

1. Incandescent lamps should be replaced with compact fluorescent lamps (CFL) or LED lamps (or high efficiency lamps)
2. Lighting fixtures (reflectors, luminaires) must be cleaned regularly.
3. Busted fluorescent lamps are to be replaced or removed.
4. Lights are to be switched off or reduced where there is natural light.

#### D. Office Equipment/Appliances Computers/Printers

1. Computers must be strictly for official use only.
2. Computers should be set to energy-saving mode, or switched off when not in use.
3. Playing computer games or playing music using office computers is prohibited.
4. It is advisable for laserjet printers not to be turned-off if these will be used again later on.

#### E. Other Appliances

1. Refrigerators must be switched off during weekends/holidays and long vacations (except when necessary).
2. Use of ovens and electric stoves in offices is prohibited, except for those used for laboratory activities.
3. Watching TV is not allowed during office hours, except for instructional purposes.
4. Water / plumbing system must be checked against leaks.
5. Water dispensers (and the like) must be turned off before leaving the office.
6. For new procurement of IT equipment laptops maybe considered in lieu of desktops (laptops consume less energy -around more than 50%A).

#### F. Motor Vehicles/Machineries

1. Motor vehicles should undergo regular preventive maintenance.
2. Only certified roadworthy vehicles are allowed to travel.
3. Prolonged idling in vehicles should be avoided.
4. Very old vehicles are less road worthy and are fuel inefficient. Hence, they should be disposed of properly.
5. Agricultural and other pumps (using fuel) should be properly maintained.



# MARIANO MARCOS STATE UNIVERSITY

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### POLICIES ON ENERGY GENERATION AND UTILIZATION

#### Principle 1. Solar Energy Generation

- Policy 1.1 Designs of new buildings shall integrate/incorporate the option for the construction of solar power facility (solar panels and accessories).
- Policy 1.2 Roof deck (roof integrity) must be considered in the designs.
- Policy 1.3 Consideration of south facing roof (around 18°) is recommended.
- Policy 1.4 Buildings shall consider provision for the integration of interconnectivity with the grid/utility with net-metering.

#### Principle 2. Diesel/Gasoline Generator Sets for Power Generation (For 50 KVA And Larger)

- Policy 2.1 Consideration of generator sets as standby units for power generation (not only during emergencies)
- Policy 2.2 Consideration of standby generator sets to operate on renewable fuels (such as biofuels – hybrid with fossil fuel)
- Policy 2.3 Maintenance program for generator sets should be in place and to be strictly observed.

#### Principle 3. Net Metering

- Policy 3.1 To optimize the potentials of distributed generation in the university, all generation facilities (large capacity) especially on renewables (solar) should consider net-metering scheme.

#### Principle 4. Integration of *green technologies* but not limited to:

- Policy 4.1 Inverter-type of air conditioning units are preferred for new installations
- Policy 4.2 Roof insulation should be installed for air-conditioned areas.
- Policy 4.3 LED lamps or high efficiency lights must be used in buildings/facilities including street lighting
- Policy 4.4 Appropriate building orientation must be considered for new buildings to optimize energy conservation.
- Policy 4.5 Sufficient shade (canopies) must be provided for outdoor units of split-type air conditioning units.

#### Principle 5. Energy Audit

- Policy 5.1 There shall be periodic conduct of spot and detailed energy accounting and audit (electricity, water, fuel) by energy auditors within all energy centers of the university.
- Policy 5.2 Spot energy audit shall be as often as possible. This can be done by coordinators.
- Policy 5.3 Detailed energy audit by energy auditors shall be done at least once every three years.
- Policy 5.4 University-wide Energy Efficiency and Conservation Technologies and Practices must be implemented.



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### Principle 6. Sustainability

Policy 6.1 The University shall sustain the conduct of research and development on alternative energy sources.

Policy 6.2 The University shall invest on energy-efficient infrastructure and facilities.

Policy 6.3 The University shall adopt and implement relevant government issuances on energy and power generation and utilization.



# MARIANO MARCOS STATE UNIVERSITY

## Office of the President

MEMORANDUM No. 22-329

**TO** : All MMSU Employees

**THRU** : Deans  
Directors  
Heads of Units

**FROM** : DR. SHIRLEY C. AGRUPIS  
President *[Signature]*

**DATE** : 25 August 2022

**SUBJECT** : Additional Energy Saving Guidelines

In addition to guidelines stated in Memorandum No. 22-223 (Reiteration of Energy Efficiency and Conservation Practices) dated 27 June 2022, the utilization of electric generator sets (gensets) shall be guided by the following:

1. Gensets of the University have a capacity intended for emergency use only. Hence, they should only be used for lights, electric fans, printers, desktop and other small-load appliances.
2. During power interruptions, all air-conditioning units (ACUs) must be turned off. Turning off large energy-consuming appliances, such as ACUs, during power interruptions can minimize the breakdown of the gensets due to overloading, as well as save on fuel consumption.

Let us all do our part in conserving energy.

cc: EMC  
OUBS

## USE OF INVERTER AIRCONDITIONER AND ENERGY EFFICIENT LIGHTINGS



UNIVERSITY ENERGY MANAGEMENT COMMITTEE

### LIGHTINGS

- Incandescent lamps should have been replaced with compact fluorescent lamps (CFL) or LED lamps (or high efficiency lamps).
- Lighting fixtures (reflectors, luminaires) including lamps should be cleaned regularly.
- Busted fluorescent lamps should be replaced or removed.
- Lights should be switched OFF or reduced where there is natural light.







## USE OF HIGH ENERGY EFFICIENT EQUIPMENTS



UNIVERSITY ENERGY  
MANAGEMENT COMMITTEE

# Computers & Printers

- Computers should be strictly for **official use only**.
- Computers should be **switched off when not in use** (both system unit and monitor) or set to energy saving mode.
- Playing **computer games** or playing **music** should be prohibited.
- **Laserjet printers** are advisable **not to be turned-off** if it will be used again within a **short period of time**.
- For new procurement of IT equipment, **laptops** maybe considered in lieu of desktop (laptops consume less energy around more than 50%).

