

Bulacan Agricultural State College

ENERGY AND CONSERVATION



TABLE OF CONTENTS

	Page
ENERGY AND CONSERVATION	1
PURPOSE	1
SCOPE	1
GENERAL POLICIES	1
Energy Conservation Program	1
How can we help in Energy Conservation?	2
Recommendations from the result of the previous Energy Audit	2
At the end of the Fiscal Year, the following are the expected results:	2
Useful links for energy conservation for the BASC	3
REFERENCES	4

ENERGY AND CONSERVATION

During the dry season, temperatures soar, as expected especially in Philippines, one of those countries which are located near the equator, where the sun rays directly hit. Bulacan Agricultural State College is taking part in a national cooperative energy-reduction program to help stabilize the power grid and prevent brownouts in the Bulacan area. As a major electricity customer, Bulacan Agricultural State College's participation in these voluntary curtailments, including the actions of our faculties, non-academic employees, students, on-site Contractors/Suppliers working on BASC's behalf, and visitors have a vital role in contribution to these goals.

On days of constraint, Bulacan Agricultural State College sends a notification to all faculty, non-academic employees, students, on-site Contractors/Suppliers working on BASC's behalf, and visitors encouraging our campus community to take easy steps to conserve electrical energy.

In the first year of the initiative, notified faculty, non-academic employees, students, on-site Contractors/Suppliers working on BASC's behalf, and visitors, made significant contributions to energy consumption, indicating our community-wide dedication to energy conservation and a sustainable university. Everyone must be responsible to use energy which is under their control efficiently.

PURPOSE

The purpose of this policy is to define BASC's approach in adequately managing its energy usage, leading to efficiency and conservation.

SCOPE

All faculty, staff, students, on-site Contractors/Suppliers working on BASC's behalf, other non-academic employees, and visitors have a vital role to play in conserving energy. Everyone must be responsible to use energy which is under their control efficiently.

GENERAL POLICIES

The Bulacan Agricultural State College (BASC), is committed to undertaking an **Energy Conservation Program** through the following initiatives:

- Compliance with all applicable legal requirements;
- Responsible energy use;

- Encouraging continuous improvement in energy conservation by academic and non-academic personnel;
- Regular conduct of an Energy Audit.

How can we help in Energy Conservation?

By strictly restricting usage of energy, we can help in energy efficiency and environmental protection. To make a meaningful contribution to the cause, BASC employees, students and visitors must bear in mind the following:

- Switch off artificial lights if not necessary and use natural light as much as possible.
- Use energy-saving bulbs.
- Use hibernation feature if taking a break or before leaving the computer.
- Switch off equipment when not in use.
- Unplug unused equipment and appliances.
- Print only when necessary.
- Control your heating and cooling.
- Use environment friendly equipment and appliances (e.g. energy-saving; inverters)
- Share the energy conservation tips in your office.
- Practice energy conservation ideas into effect for ultimate savings daily!

Recommendations from the result of the previous Energy Audit

- Replace conventional fluorescent tube lamps with LEDs of the same lumens.
- Install motion detectors to turn on/off lights automatically, otherwise place proper signage in every light switch.
- Install brick inside the water tank closet (toilet) to reduce flushing water quantity.
- Replacement of conventional air-con with inverter type.
- Conduct cooling load calculations to every room to be air-conditioned to determine the air-con to be installed.

At the end of the Fiscal Year, the following are the expected results:

- About 40-50% reduction in the lighting energy consumption is expected

- Additional 70% savings will be realized in the energy consumption for light with a motion sensor or about 15% without the motion sensor but with proper signage to put off the light when not in use.
- Approximately 1.0 liter per water closet (toilet) per flushing can be realized
- A 20-35% reduction in air conditioning energy consumption by replacing old and inefficient units with inverter type
- After the thorough cooling load calculations and repairs of the thermal leakages in all rooms with aircon and rooms to be air conditioned, an energy consumption reduction of about 45% can be attained.

Useful links for energy conservation for the BASC

- Goodenergy.co.uk GOOD ENERGY (new window) – Tips to save electricity expenses.
- Energy conservation: 10 ways to save energy
- Payless Power Tips (new window) – Saving electricity comes with number of ways and the effect of certain strategies varies. Here are 100 Ways to Save Electricity.
- Energy Saver Renewable Energy System (new window) – Considerations when planning and installing a renewable energy system.
- Institute of Ecolonomics (new window) – A guide to become more environmentally friendly and reduce or maybe eliminate utility bills.
- Reader's Digest "Energy Conservation" (new window) – Must-knows about Energy Conservation.

REFERENCES

- “100 Ways to Save Electricity”. (April 05, 2019). Paylesspower.com. Retrieved April 29, 2020 from <https://paylesspower.com/blog/100-ways-to-save-electricity/>
- “13 Things You Should Know About Energy Conservation”. Reader’s Digest. Retrieved April 29, 2020 from <https://www.readersdigest.co.in/odds-and-ends/story-13-things-you-should-know-about-Energy-conservation-124357>
- “7 Ways Power your House with Renewable Energy”. (April 2, 2018). Ecolonomics.org. Retrieved April 29, 2020 from <https://ecolonomics.org/7-ways-power-your-house-with-renewable-energy/>
- Alipe, Christin, “Why is so hot in the Philippines during summer?” Quora.com. (April 10, 2017). Retrieved April 28, 2020 from <https://www.quora.com/Why-is-it-so-hot-in-the-Philippines-during-summer>
- ALSCO, “13 Energy Saving Ideas for A Sustainable Workplace”, (June 27, 2017), Greener Workplace. Retrieved April 28, 2020 from <https://www.alsco.com.au/2017/06/workplace-energy-saving-ideas/>
- Earth cupped on hands. Digital Image. Arroyo Insurance Services. (n.d). Retrieved April 28, 2020 from https://www.google.com/urlsa=i&url=https%3A%2F%2Ftorrance.aarroyoin.com%2Faboutus%2F&psig=AOvVaw0litsJHtg50o9Jms_OOIWJ&ust=1588210180087000&source=images&cd=vfe&ved=0CACAIQjRxqFwoTCNjppjOkCFQAAAAAdAAAAABAD
- “Energy-saving tips for everyone”,(n.d).EnergyStar.gov. Retrieved April 28,2020 from https://www.energystar.gov/about/publications_reports?s=footer
- “Energy-saving tips for business”, SRPnet.com. (1996-2020). Retrieved April 28, 2020 from <https://www.srpnet.com/energy/biztips.aspx>
- “How to save electricity at home”.(May 10, 2017). Goodenergy.co.uk. Retrieved April 29, 2020 from <https://www.goodenergy.co.uk/blog/2017/10/05/how-to-save-electricity-at-home/>
- “Planning for Home Renewable Energy Systems”. (n.d). Energy.gov. Retrieved April 29, 2020 from <https://www.energy.gov/energysaver/buying-and-making-electricity/planning-home-renewable-energy-systems>
- Ramirez, P. (2017). “Tips: Ways to save on electricity bills at home”. Primer.com.ph. Retrieved April 29, 2020 from <https://primer.com.ph/tips-guides/2017/09/26/tips-ways-to-save-on-electricity-bills-at-home/>
- “Six Simple Ways To Contribute Towards Energy Conservation”.(2010-2018). The Ponty Chadha Foundation. Retrieved April 28, 2020

from <https://www.thepontychadhafoundation.org/blog/environment/six-simple-ways-to-contribute-towards-energy-conservation/>

“Sustainability at Georgetown University”.(n.d). Georgetown University. Retrieved April 28, 2020 from <https://sustainability.georgetown.edu/save-energy/summer-energy-curtailement/>
Thapliyal, A. and Bennet, A. (2018).