

AY 2022 - 2023



Saint Louis University

# Commitment to Carbon Neutral University



**13** CLIMATE ACTION



# CALL FOR RESPONDENTS – “Carbon Footprint Calculator: An Emissions Analysis for SLU”

Published in the SLU Website

URL: <https://www.slu.edu.ph/2023/09/11/call-for-respondents-carbon-footprint-calculator-an-emissions-analysis-for-slu/>



BS Chemical Engineering 4th-year students of Saint Louis University invite the Louisian students of the School of Teacher Education and Liberal Arts (STELA), School of Engineering and Architecture (SEA), School of Medicine (SOM), and the School of Advanced Studies (SAS), to make a stand to reduce carbon emissions by participating in the study, “*CARBON FOOTPRINT CALCULATOR: AN EMISSIONS ANALYSIS FOR SAINT LOUIS UNIVERSITY.*”

The study aims to develop a Carbon Footprint calculator to monitor and reduce the carbon emissions of SLU.

## CARBON FOOTPRINT CALCULATOR: AN EMISSIONS ANALYSIS FOR SAINT LOUIS UNIVERSITY

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### ABSTRACT

The impact of carbon emissions to the environment are immensely putting everyone in danger if not kept monitored and reduced. Carbon footprint makes up the total greenhouse gases emitted by an individual, organization, or a product. It is known that these gases cause climate change. By understanding carbon footprint, emission sources can be identified. Actions can be rendered to lessen carbon emissions generated. This research study aims to develop a carbon footprint calculator that can be used by the institution of Saint Louis University to reduce its carbon emissions and embody the Philippines’ priority of reducing the greenhouse gas emissions. The study is conducted at Saint Louis University – Main Campus in Baguio City and will gather time-frame data of five years, including pre- and post-pandemic. It utilizes the quantitative research method to enable the students to analyze data systematically. Correlational research design is applied to instate relationship between the variables and the trends generated by the carbon footprint calculator. The research study employs on-site assessments, survey questionnaires, and application of Phyton software for the data-gathering tools. Treatment of data adapts to the framework of the 2017 Philippine GHG Inventory and Reporting Protocol. Data are analyzed through the use of ARIMA and SARIMA to account seasonality of the data. The results obtained with the use of the carbon footprint calculator will be used to predict the carbon footprint emissions of Saint Louis University until the year of 2030. This will aid Saint Louis University to make action plans on how to reduce their carbon emissions and be in line with the sustainable development goals.



# SLU's Commitment to Environmental Sustainability

Published in the SLU Website

URL: <https://www.slu.edu.ph/environmental-programs/>

**"Saint Louis University is committed and continuing in taking action for environment sustainability. The major activities on campus are ecologically sound, socially just, economically viable, and humane, and will continue to be so for future generations."**

Rev. Fr. Gilbert B. Sales, CICM  
University President

## Environmental Sustainability

In commitment to the CICM promotion of the integrity of creation and under its core value of social involvement, SLU has taken concrete steps in taking care of the environment and in mitigating the serious effects of global warming. SLU has strongly implemented environment-friendly practices inside the campus through its innovative "clean and green" projects that include installation of solar panels, sewage treatment plant, garbage segregation, the plastic-free Wednesday, and various activities in support to the Department of Environmental and Natural Resources (DENR) environmental campaigns and the City of Baguio and United Nation's Sustainable Development Goals (SDGs).

### Environmental Policy Statement

#### Aims and Objectives

Everyone is enjoined to align their plans, programs, and activities to this Environmental Policy bearing in mind the reminder of Pope Francis that "humanity is one people living in a common home" and we "are called to care for creation not only as responsible citizens, but also as followers of Christ!".

Rev. Fr. Gilbert B. Sales, CICM  
University President

Pursuant to the objectives of the CICM for the promotion of justice, peace, and integrity of creation, SLU commits to protect the environment.

#### Environmental Management

SLU Adheres to the principles of environmental preservation, management, and sustainable development. Towards these ends, the University commits:

- Promote sound environmental management policies and practices in all of its units and campuses.
- Comply with all environmental laws, rules, and regulations.
- Encourage the academic community to be more pro-actively involved in environmental issues through programs that support ecologically sound projects and programs.
- Promote activities that will develop skills and understanding among students, faculty, and university administrators in initiating active responses and increasing awareness and involvement on environmental concerns such as but not limited to preventing pollution.

#### Waste Reduction and Recycling

- Implement sustainable resource management practices, based on the Reduce, Reuse, and Recycle principles.

# SLU's Environmental Memos

Published in: [SLU Website](#)

at URL: <http://www.slu.edu.ph/environmental-programs/>

- Memo on World Day of Prayer for the Care of Creation Celebration
- Opening of the Center for Environmental Management and Sustainable Development (Admin. Memo No. 16 s. 2017)
- Memo on the Application for Teacher Training on MSc in DRRM Program (Admin. Memo No. 3 s. 2017)
- Solid Waste Management (Segregation, Storage and Collection) (Admin. Memo No. 36 s. 2017)
- Formation of Environment Committees (Admin. Memo No. 43 s. 2017)
- Ban on the Use of Styrofoam and Plastic Products (Admin. Memo No. 09 s. 2018)
- Guidelines on the Condemnation and Disposal of Assets of the University (Admin. Memo No. 12 s. 2018)
- Protecting the Environment through the "THINK BEFORE YOU PRINT" Campaign (Admin Memo No. 33, s. 2019)
- Protecting the Environment through the Adoption of Austerity Measures (Admin. Memo No. 34, s. 2019)
- Consolidated Policy on the Use of Parking Spaces in the Main Campus (Admin. Memo No. 40, s. 2017)
- Memo on the Reiteration on the Ban on the Use of Styrofoam and Plastic Products (Admin. Memo No. 32, s. 2023)

# 2022 - 2023 Clean Energy Report (Main Campus)

Published in: [SLU Website](#)

at URL: <https://www.slu.edu.ph/2022/11/03/2021-2022-energy-consumption/>



## Solar PV Rooftop Performance Report SLU Baguio

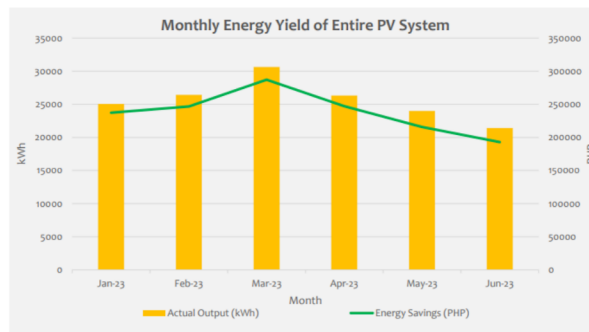
PHP 1,427,265 Savings in 6 Months

Philippines, July 2023



## Achieved Savings of **PHP 1,427,265** in 6 months!

Total Clean Energy Generated: 153,905 kWh



\*Savings calculated based on BENECO's LV commercial consumer power rate  
Period: 21 January 2023 – 30 June 2023



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## Total Emission Savings in 6 Months

Total RE generated



**153,905**  
kWh



**60**  
Houses  
Powered  
Annually  
(200kWh/month)



**2,635**  
LED Lights  
Powered  
Annually  
(20W, 8h/day)



**170,700**  
km Driven  
Annually



**4,414,090**  
Smart Phones  
Charged Annually



**700**  
Ceiling Fans  
Powered  
Annually  
(75W, 8hrs/day)

Equivalent  
to:

Total CO<sub>2</sub> savings



**70**  
tons



**25**  
ha Forest Carbon Sequestered

\* CO<sub>2</sub> savings calculated based on average CO<sub>2</sub> emissions of the Philippine national grid



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# 2022 - 2023 Clean Energy Report (Bakakeng Campus)

Published in: [SLU Website](#)

at URL: <https://www.slu.edu.ph/2022/11/03/2021-2022-energy-consumption/>



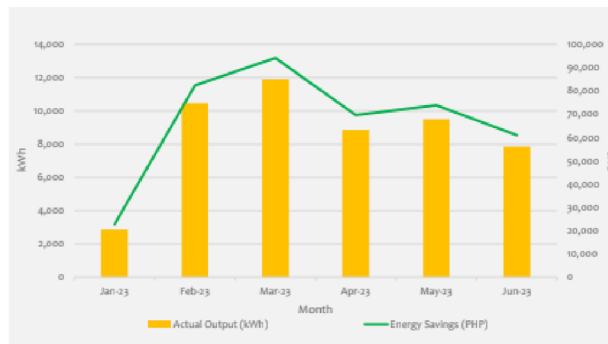
## Solar PV Rooftop Performance Report SLU Bakakeng

PHP 403,810 Savings in 6 Months  
Philippines, July 2023



## Achieved Savings of **PHP 403,810** in 6 months!

Total Clean Energy Generated: 51,470 kWh



\*Savings calculated based on BENECO's HV commercial consumer power rate  
Period: 24 January 2023 - 30 June 2023



## Total Emission Savings in 6 Months

Total RE generated



**51,470**  
kWh



**20**

Houses  
Powered  
Annually  
(20kWh/month)



**1,340**  
LED Lights  
Powered  
Annually  
(20W, 8h/day)



**91,850**  
km Driven  
Annually



**2,708,450**  
Smart Phones  
Charged Annually



**350**

Ceiling Fans  
Powered  
Annually  
(75W, 8hrs/day)

Equivalent  
to:

Total CO<sub>2</sub> savings



**25**  
tons



**10**

ha Forest Carbon Sequestered

\* CO<sub>2</sub> savings calculated based on average CO<sub>2</sub> emissions of the Philippine national grid



# 2022 - 2023 Clean Energy Report (SLU SHMC Hospital)

Published in: [SLU Website](#)

at URL: <https://www.slu.edu.ph/2022/11/03/2021-2022-energy-consumption/>



## Solar PV Rooftop Performance Report SLU Hospital

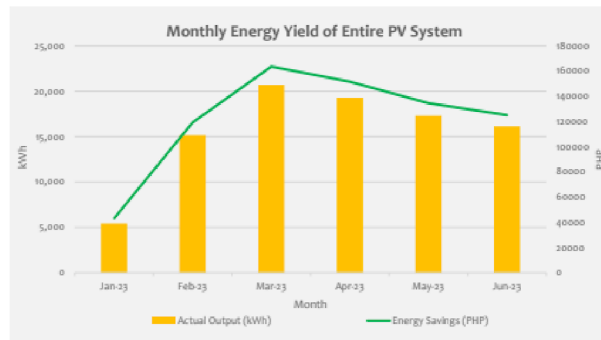
PHP 737,030 Savings in 6 Months

Philippines, July 2023



## Achieved Savings of **PHP 737,030** in 6 months!

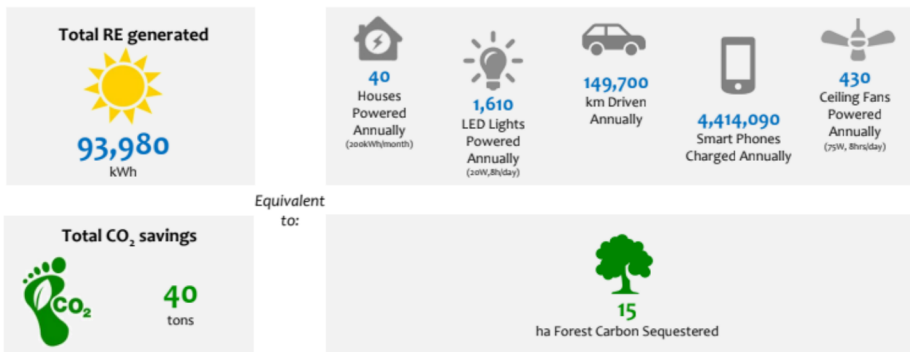
Total Clean Energy Generated: 93,980 kWh



\*Savings calculated based on BENEKO's HV commercial consumer power rate  
Period: 21 January 2023 – 30 June 2023



## Total Emission Savings in 6 Months



\* CO<sub>2</sub> savings calculated based on average CO<sub>2</sub> emissions of the Philippine national grid



# SLU as Consortium Member of Dalan ni Taltallak: Committed to Low-Carbon Transport Research and Innovation

Ceremonial MOA Signing and Launching of Dalan Ni Taltallak  
Held at Gevers Hall, SLU

**14 December 2023**

Published in: [SLU Official Website](#)

at URL: <https://www.slu.edu.ph/2022/12/14/ceremonial-moa-signing-and-launching-of-dalan-ni-taltallak-held-at-gevers-hall-slu/>



The name, Dalan Ni Taltallak, conjoins three local terms in the Cordillera region: “Dalan,” “Ni,” and “Taltallak.” As a verb, “Dalan” means traveling on foot or walking. It is an Ifugao and Ilokano phrase for “way or trail” “Taltallak” is an Ifugao and Kankanaey phrase that refers to the wooden bicycles developed by indigenous peoples in the Ifugao Province as a mode of access or transportation within the community. “Ni” is an Ibaloi term that translates to the English preposition “of.” It represents low-carbon transportation that was built and operated with the use of both indigenous and scientific knowledge. As a result, “Dalan Ni Taltallak” can be translated as “developing access to or paving the way for low carbon transportation.”

As member universities of Dalan Ni Taltallak, the Baguio Consortium for Low Carbon Transportation research and innovation, Saint Louis University, University of Baguio, and University of the Cordilleras signed a Memorandum of Agreement on November 25, 2022 for environmental protection and transportation research with the Department of Transportation (DOTr), the City Government of Baguio, and the United Nations Development Programme (UNDP). The MOA signing was conducted at Gevers Hall, Saint Louis University.



# SLU Basic Education School Environmental Programs and Initiatives

Published in: [SLU Official Website](https://www.slu.edu.ph)

at URL:<https://www.slu.edu.ph/2023/04/12/slu-basic-education-school-environmental-programs-and-initiative/>



The most effective way to prevent destruction to our environment is to avert waste in the first place. Classifying waste facilitates proper disposal and minimizes, if not prevents, the entry of toxic wastes in vital ecosystems and ensures reconversion into useful forms. Furthermore, an awareness of the Earth's limited resources leads to a conscious effort to change one's consumerist attitude as well as to develop processes and technology that would bring about effective recycling of a great number of resources.

## 1. HIKWATAN: Ecological Integrity Program

"HIKWATAN" is an Ifugao terminology that means "cleaning, or the habit of doing some weeding to help naturally regenerate trees to grow." The school's "Hikwatan" Ecological Integrity Program emphasizes environmental awareness and the importance of ecological processes to understand the fragility of our environment and the importance of its protection. This system of environmental management addresses the environmental impact of the school's activities. It helps to establish goals, processes, and procedures that will improve the school's impact on the environment and the health of the people in the community.

## 2. Cash from Trash: A Clean and Green Program

There are designated "Earth Bins" (trash bins shaped like the Earth) within the school campus, wherein all used containers/bottles of drinks are dunked into. The collection is done by designated staff members and even the members of the YES-O Club and consequently stored temporarily in the school's Materials Recovery Facility (MRF). These collected trashes are then sold on a regular basis. The collection is kept by the school Cashier, and at the end of the academic year, the total amount is used to purchase school materials to augment the learners' instructional materials.

## 3. Solid Waste Management Program through:

### A. Materials Recovery Facility

Schools may have various ways and means of implementing a sound Solid Management Program. In the SLU BEs, an existing Materials Recovery Facility (MRF) stores solid wastes from the classrooms, offices, and canteens that can still be reused or recycled. The other materials that can no longer be utilized are then sold to junk shops to generate funds to purchase needed additional materials for the pupils/students to use. In the past years, funds generated from the selling of materials from MRF were used to acquire sports equipment for the learners to use during Clubs.

### b. Waste Segregation Program

The school community uses designated trash bins to put their biodegradable and non-biodegradable wastes. This practice is enhanced and supported by the curriculum as the Science Department takes the lead in informing the pupils/students about this advocacy and mission of the school as well as the advantages of putting this program into practice in school and even at home and in the community.

## 4. "Gulayan sa Paaralan" and the Observance of "Vegetable Day" in the Pupils' Food Schedule

Incorporating vegetables into the pupils' diet is genuinely beneficial to their health. Thus, the elementary department has incorporated into its Food Schedule every Wednesday and Friday the pupils' consumption of vegetables and daily for them to eat fruits at recess or lunch. In support of this meaningful practice, the school has allotted a piece of land on its campus where native vegetables are planted and reared by the maintenance personnel as well as the club members. The school personnel and some parents have benefited from the vegetables harvested from the plots.

## 5. School Beautification Program and Clean and Orderly Classrooms and Offices

It has always been a practice of the school to remind its teaching and non-teaching personnel, pupils, and parents to maintain the pleasantness of the school campus through a constant Beautification Program. Plants and trees abound on the campus. The maintenance of clean and orderly classrooms and offices is likewise noteworthy. For many years now, the administrators in the elementary department have consistently implemented a program for the selection of the Cleanest and Most Orderly Classrooms and Offices. This friendly competition paved the way for the sustenance of a pleasant atmosphere in the different classrooms and offices as the goal has been met to make every nook of the learning community spick and span and conducive for learning and growth among the learners, and a motivating place of work for its staff.

## 6. Smoke-free, Plastic-free, Styro-free Campus Advocacies

Posted within strategic places within the school campus are placards and posters depicting the advocacies the school promotes.

Let us maintain a:

- Smoke-free,
- Bully-free,
- Noise-free,
- Plastic-free, and
- Styro-free School!

## 7. Energy Conservation Advocacy

It is likewise a practice among the teachers and staff to be mindful of the use of electricity and equipment in school to be turned/switched off whenever these are not in use. They also report leaking faucets or defective lights that the custodian must repair or replace. This lesson is likewise developed in the classrooms in order for the pupils/students to be more aware of their share in conserving energy in school and even at their own homes for the ultimate benefit of Mother Earth.

## 8. BYOM (Bring Your Own Mug/Materials) Advocacy

One striking practice among the teachers and staff is this advocacy wherein they bring their own coffee mugs and/or utensils during meetings and special gatherings when snacks are served. The school continues to avoid purchasing bottled water or juice in tetra packs for snacks. When coffee is served, the teachers and staff bring and use their own mugs instead.