SAINT LOUIS UNIVERSITY

Baguio City, Philippines

Metric 7.2 University measures towards affordable and clean energy



7 AFFORDABLE AND CLEAN ENERGY

Times Higher Education Sustainability Impact Ratings

AY 2025-2026

SAINT LOUIS UNIVERSITY

Baguio City, Philippines

Indicator 7.2.5 Energy wastage identification



7 AFFORDABLE AND CLEAN ENERGY

Times Higher Education Sustainability Impact Ratings

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SLU's Energy Wastage Identification

SLU'S DATA-DRIVEN REVIEW & ENERGY WASTAGE ISOLATION ARCHITECTURE

Saint Louis University (SLU) executes an institutionalized, data-driven University Energy Review process to systematically isolate and eliminate areas of high energy wastage across its academic and clinical infrastructure. By combining IoT-enabled solar photovoltaic (PV) generation analytics, campus-level sub-metering, and granular load comparisons, the university continuously evaluates its baseline power draw, pinpoints spatial and temporal anomalies, and deploys targeted engineering interventions.



Energy Wastage Identification

SLU'S DATA-DRIVEN REVIEW & ENERGY WASTAGE ISOLATION ARCHITECTURE

- **Granular, Campus-Segmented Monitoring:** Energy performance is tracked and segmented across SLU's major sites —Main Campus, Maryheights (Bakakeng) Campus, and the SLU Sacred Heart Medical Center (SHMC). This granular sub-metering isolates disproportional load consumption by campus and building, exposing non-optimal consumption intervals and high-draw operational zones for immediate mitigation.
- **Real-Time IoT Telemetry & Analytics (WEnergy Global Partnership):** Utilizing over 513 kWp of rooftop solar PV capacity integrated with real-time IoT monitoring, SLU continuously tracks the variance between solar generation yield (kWh) and facility demand. This comparison exposes unmitigated daytime power surges and residual "vampire" baseline loads during unoccupied periods.
- **Audited Solar PV Performance Reporting:** The university institutionalizes quarterly and annual performance reviews, published in formal Solar PV Rooftop Performance Reports, which benchmark energy yield, cost displacement, and grid carbon displacement against BENECO utility rates.



Energy Wastage Identification

WENERGY REPORT FOR SLU BAGUIO - MAIN CAMPUS

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Solar PV Rooftop Performance Report Main Campus

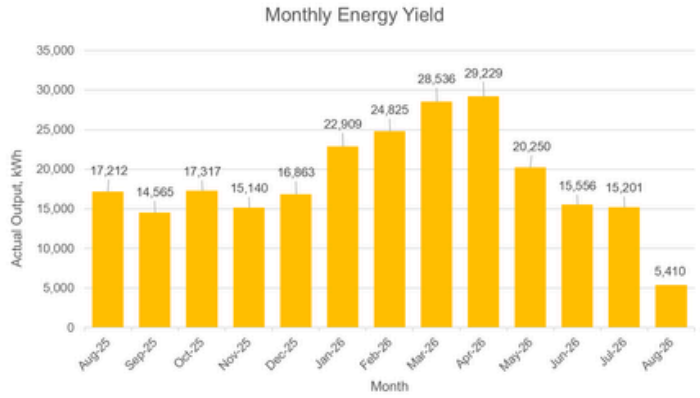
Savings Report for August 2025 – August 2026





Achieved Savings of PHP 2,187,803.39 in 13 months!

Total Clean Energy Generated: 243,013 kWh



Month	25-Aug	25-Sep	25-Oct	25-Nov	25-Dec	26-Jan	26-Feb	26-Mar	26-Apr	26-May	26-Jun	26-Jul	26-Aug	Total
Actual Output (kWh)	17,212	14,565	17,317	15,140	16,863	22,909	24,825	28,536	29,229	20,250	15,556	15,201	5,410	243,013
Energy Savings (PHP)	170212.05	120194.75	130814.35	131910.28	141042.13	176385.55	201864.49	233144.83	280598.4	165446.55	181149.62	186820.29	68220.1	2,187,803.39

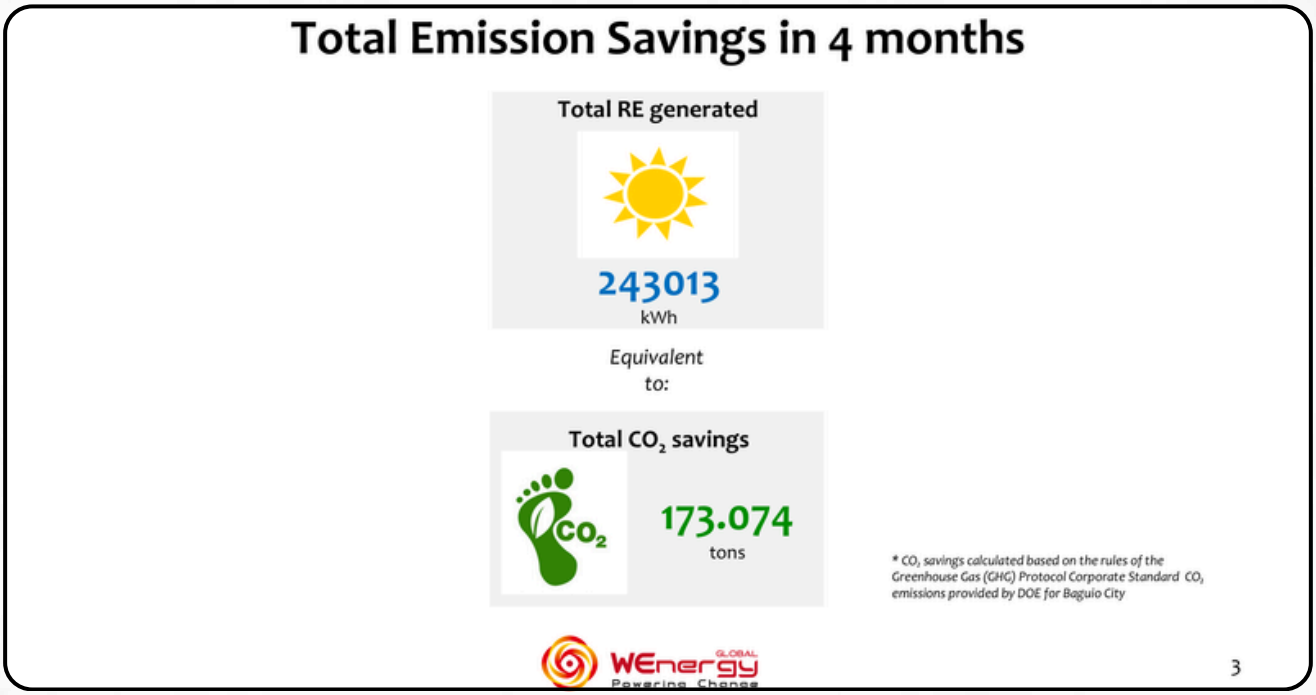
*Savings calculated based on BENECO rate per month for August 2025 – August 2026

WEnergy GLOBAL
Powering Change

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Energy Wastage Identification

WENERGY REPORT FOR SLU BAGUIO - MAIN CAMPUS



Demonstrating measurable progress toward institutional decarbonization and energy conservation under SDG 7, Saint Louis University's Main Campus rooftop Solar Photovoltaic (PV) installation generated 243,013 kWh of clean, renewable electricity over the 13-month monitoring period from August 2025 to August 2026. Based on prevailing monthly commercial power rates from the Benguet Electric Cooperative (BENECO), the system yielded PHP 2,187,803.39 in cumulative utility cost savings, peaking during the high-irradiance dry months of March and April 2026 with monthly generation exceeding 28,500 kWh and 29,200 kWh, respectively. Evaluated under the Greenhouse Gas (GHG) Protocol Corporate Standard using Department of Energy (DOE) emission factors for Baguio City, this clean generation avoided 173.074 metric tons of CO2 emissions, providing verified empirical evidence of SLU's demand-side energy mitigation, peak-load shaving, and operational carbon reduction.

Energy Wastage Identification

WENERGY REPORT FOR SLU BAGUIO - MARYHEIGHTS CAMPUS

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Solar PV Rooftop Performance Report Maryheights Campus

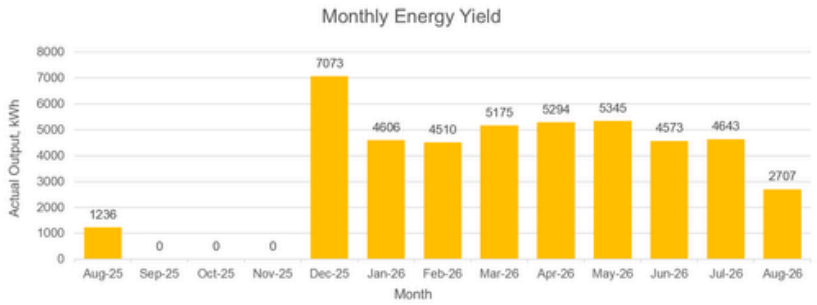
Savings Report for August 2025 – August 2026





Achieved Savings of PHP 432917.40 in 13 months!

Total Clean Energy Generated: 45161 kWh



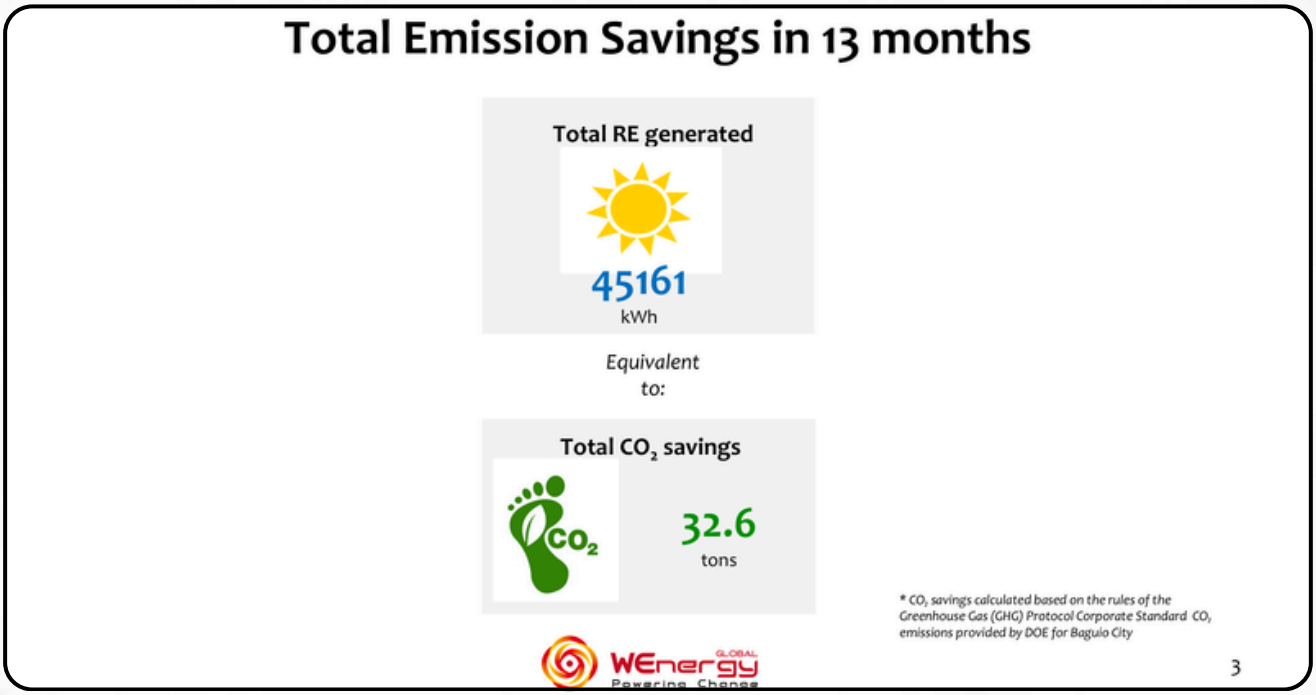
Date	25-Aug	25-Sep	25-Oct	25-Nov	25-Dec	26-Jan	26-Feb	26-Mar	26-Apr	26-May	26-Jun	26-Jul	26-Aug	Total
Actual Output (kWh)	1,236	0	0	0	7,073	4,606	4,510	5,175	5294	5345	4573	4643	2706	45161
Energy Savings (PHP)	12,212.79				59,158.78	35,463.44	36,673.07	42,280.79	50,822.40	51,868.41	53,252.59	57,062.47	34,122.66	432,917.40

*Savings calculated based on BENECO rate per month for August 2025 – August 2026

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Powering Change

Energy Wastage Identification

WENERGY REPORT FOR SLU BAGUIO - MARYHEIGHTS CAMPUS



Reinforcing Saint Louis University's distributed clean-energy infrastructure under SDG 7, the Maryheights (Bakakeng) Campus rooftop Solar Photovoltaic (PV) system generated 45,161 kWh of clean electricity across the 13-month monitoring cycle from August 2025 to August 2026. Based on monthly commercial tariff structures from the Benguet Electric Cooperative (BENECO), the array yielded PHP 432,917.40 in cumulative utility cost savings, delivering peak monthly yields between December 2025 and May 2026 with clean generation consistently exceeding 4,500 to 7,000 kWh per month. In accordance with the Greenhouse Gas (GHG) Protocol Corporate Standard using Department of Energy (DOE) regional emissions factors for Baguio City, the Maryheights installation successfully avoided 32.6 metric tons of CO_2 emissions, providing documented evidence of continuous decentralized solar generation, operational cost reduction, and carbon mitigation across SLU's satellite campus facilities.

Energy Wastage Identification

WENERGY REPORT FOR SLU BAGUIO - SLU SACRED HEART AND MEDICAL CENTER

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Solar PV Rooftop Performance Report SLUSHMC

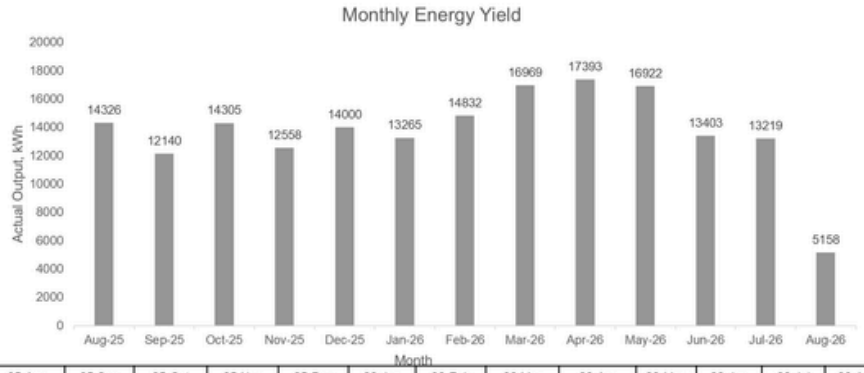
Savings Report for August 2025 – August 2026





Achieved Savings of PHP 1,571,670.98 in 13 months!

Total Clean Energy Generated: 178490 kWh



Month	25-Aug	25-Sep	25-Oct	25-Nov	25-Dec	26-Jan	26-Feb	26-Mar	26-Apr	26-May	26-Jun	26-Jul	26-Aug	Total
Actual Output (kWh)	14,326	12,140	14,305	12,558	14,000	13,265	14,832	16,969	17,393	16,922	13,403	13,219	5,158	178,490
Energy Savings (PHP)	106871.96	82794.8	117014.9	94812.9	96040	95905.95	113761.4	148818.1	158624.2	185972.8	156010.9	153869.2	61173.88	1,571,670.98

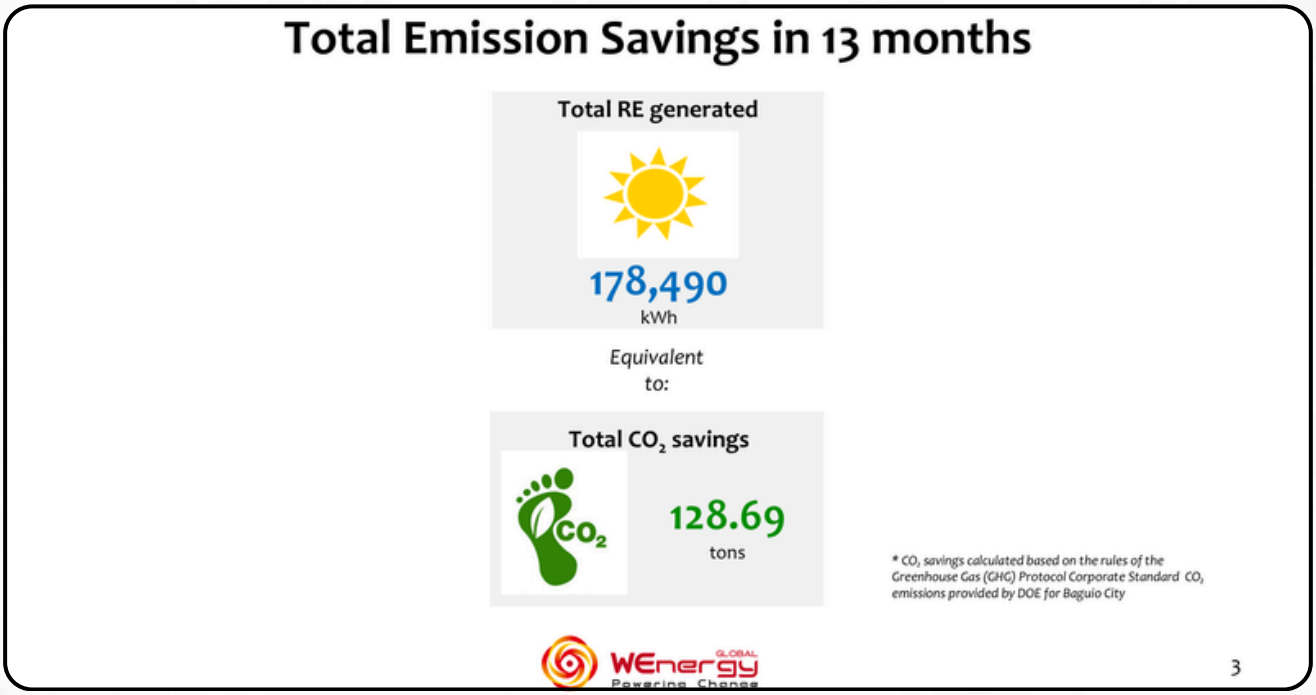
*Savings calculated based on BENECO rate per month for August 2025 – August 2026

WEnergy GLOBAL
Powering Change

2

Energy Wastage Identification

WENERGY REPORT FOR SLU BAGUIO - SLU SACRED HEART AND MEDICAL CENTER



The rooftop solar PV installation at Saint Louis University Sacred Heart Medical Center (SLU SHMC) directly advances Sustainable Development Goal 7: Affordable and Clean Energy, specifically Target 7.2, by substantially scaling up the share of renewable energy in the hospital's power mix. Over a 13-month monitoring period from August 2025 to August 2026, the system produced 178,490 kWh of clean electricity, avoiding 128.69 tons of CO_2 emissions and yielding PHP 1,571,670.98 in utility cost savings against standard BENECO grid rates. Beyond mitigating carbon dependency, this initiative demonstrates how adopting modern, decentralized solar infrastructure lowers operational overhead in energy-intensive healthcare facilities, turning clean energy adoption into a financially viable and sustainable model for institutional operations



The SLU SDG Report 2026