جامعة بيروت العربية
BEIRUT ARAB UNIVERSITY

SUSTAINABLE DEVELOPMENT GOALS

SDG 17: PARTNERSHIPS FOR THE GOALS







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Beirut Arab University
SDG 7 Affordable and Clean Energy

University and Community Alignment Report | Lebanon

Evidence review updated 19 October 2026

Understanding the goal

SDG 7 seeks affordable, reliable, sustainable and modern energy. Its targets address access, renewable energy, energy efficiency and cooperation in clean-energy research and technology. A university can contribute through the energy systems it operates, the professionals it educates and the knowledge it shares with industry, government and communities. Reliability and affordability are important alongside environmental performance.

Evidence: United Nations SDG 7 targets

BAU's contribution

BAU's contribution includes a published campus solar-microgrid case study, renewable-energy education, industry visits, sustainability workshops and a community lighting partnership. These activities connect campus needs with applied engineering and public benefit. Evidence should distinguish installed systems from modelling scenarios and future expansion plans, and educational activity from independently measured reductions in consumption.

Relevant UN targets	Focus of this report
7.1	Reliable energy for university and community services
7.2 and 7.3	Renewable generation and efficient energy use
7.a	Research, professional learning and technical cooperation

Students staff and community

Students learn energy analysis and design through degree study, workshops and industry exposure. Academic staff develop and share research. Facilities and technical employees operate energy systems, while administrative teams support investment and records. Civic and industry partners connect university capability with local services and professional practice.

Evidence approach: dated activities and research from 2021–2026 are prioritised. Standing services are identified as such; policies and agreements have no date cutoff. Original links accompany the evidence. The final page proposes improvements and does not claim they are already implemented.

Campus energy systems as an applied learning resource

A published solar microgrid case

The May 2023 study Towards Energy Sustainability in University Campuses examines BAU's Beirut campus. BAU and Kuwait-based authors compared design scenarios using HOMER software and described implementation and performance assessment of a solar system integrated with existing diesel generation. It provides a practical research account of campus energy planning.

Evidence: Original BAU campus energy comparison published 2023

A university energy project has several purposes. It must supply teaching and administrative functions reliably, manage costs and reduce unnecessary fossil-fuel use. Engineers need to understand demand profiles and system integration, while facilities teams need usable controls, maintenance procedures and appropriate records. Students can learn from these practical constraints as well as from theoretical calculations.

Recent institutional reporting

BAU's 2025 update to the International Association of Universities describes solar and LED-lighting work. It also lists further solar expansion for 2026. The update is useful institutional reporting, but listed future projects should remain identified as plans until completion records are available.

Evidence: BAU 2025 SDG 9 activity report hosted by IAU

Policy supports a continuing process

The Climate Action Policy addresses energy efficiency and renewable-energy development. Its role is to guide improvement; an audit, retrofit or installation requires its own implementation evidence.

Evidence: BAU Climate Action Policy

A strong campus programme would connect facilities management with academic expertise and purchasing decisions. Different buildings may need different solutions, depending on use, occupancy, equipment and available space. Administrative employees contribute by managing procurement and records, while students and staff influence everyday demand. The university can therefore treat energy as both an operational responsibility and a learning opportunity.

Preparing students and staff for the energy transition

A dedicated renewable-energy pathway

BAU's programme directory lists a Renewable Energy Engineering undergraduate programme at Debbieh, and the Faculty of Engineering history records its launch in January 2024. A dedicated degree pathway creates a structured route for developing the engineering knowledge required by renewable and efficient energy systems.

Evidence: BAU renewable energy degree in programme directory | BAU renewable energy programme launch record

The programme's SDG contribution depends on what students can analyse, design and evaluate. Strong learning connects physical principles with safety, economics, environmental effects and actual operating conditions. Industry engagement can help students understand the gap between selecting a technology and maintaining a reliable service over time.

Learning from energy providers

On 14 November 2025, electrical power and machines engineering students in BAU's IEEE Tripoli branch visited Energica under academic supervision. The visit connected coursework with renewable-energy and smart-power applications used in homes and industry. It is evidence of professional exposure rather than a claim that students delivered energy assessments to clients.

Evidence: BAU student renewable energy and smart systems visit

Design education includes low-energy buildings

BAU's Architecture Sustainability Day on 6 March 2024 included sustainable housing, green-building safety and sustainable design strategies. Workshops addressed zero-energy houses and environmentally appropriate site selection. This gives a dated example of students examining energy questions within the wider design of buildings and cities.

Evidence: BAU Architecture Sustainability Day

Academic staff can strengthen these experiences by requiring students to explain assumptions, compare options and reflect on maintenance and affordability. Technical and administrative employees can contribute the operational knowledge that design exercises sometimes overlook. Learning is more persuasive when assessed work demonstrates judgment, rather than attendance being the only recorded outcome.

Community services and energy-related public knowledge

Lighting the university neighbourhood

On 21 February 2023, BAU, Rebirth Beirut and Medco marked the lighting of streets around Beirut Campus through From Our Energy To Our Region. The university reports coverage of 18,500 square metres and 1,040 linear metres. The ceremony involved the Beirut Governor and local stakeholders. This is a documented community electricity service; the article does not establish that the lighting supply was entirely renewable.

Evidence: BAU From Our Energy To Our Region initiative

Public lighting connects energy with safety, movement and the use of shared urban space. A partnership can combine university facilities or technical support with civic coordination and private-sector resources. Ongoing value depends on dependable operation and maintenance, which should be distinguished from the ceremony that launches an initiative.

Research can inform efficient building practice

BAU's 2024–2025 architecture publication record includes research on implementing building energy-efficiency codes in Tripoli and actions for enforcement. This is relevant to local professional and policy discussion. A research proposal for better implementation is not evidence that BAU's own buildings hold a particular green-building certification.

Evidence: BAU building energy code research record

Connecting university knowledge with local needs

Community energy learning can address practical questions such as understanding consumption, avoiding inefficient equipment and judging renewable-energy proposals. BAU's engineering and architecture work provides a basis for such engagement. A useful service should state its audience, delivery arrangements and whether it offers general education or a site-specific technical assessment.

For industry-facing work, a clearly defined question and an agreed method are essential. A student visit, a public workshop and a paid engineering assessment have different levels of responsibility. Recording the service delivered, the professionals supervising it and any verified follow-up would help BAU demonstrate how expertise supports local energy decisions without overstating the scope of an activity.

Priorities for strengthening the contribution to SDG 7

BAU has evidence spanning infrastructure, research, education and a community lighting partnership. The following recommendations would help connect those strands with measurable improvements in reliability, efficiency and clean-energy use.

Publish a clear campus energy account

An annual account could distinguish purchased electricity, on-site renewable generation, generator fuel and exported energy where applicable. Building-level information would help identify high consumption and unusual patterns. Reported savings should specify the baseline, period and method, including changes in occupancy or operating hours that affect comparisons.

Priority	Suggested evidence of progress
Efficiency	Reviewed consumption and completed corrective actions
Renewables	Installed capacity and metered generation
Learning	Assessed technical projects and industry feedback
Community service	Service records and verified follow-up results

Link investment decisions with learning and maintenance

Each major project could include design review, commissioning evidence, maintenance responsibilities and an agreed monitoring period. Students could analyse anonymised operational data through supervised coursework. Facilities staff should be involved from the start so that proposed systems can be maintained with the skills and resources available.

Public and industry programmes could use a recurring calendar and accessible guidance in appropriate languages. Feedback should ask whether participants can make better decisions, and technical services should record whether recommendations were adopted. Where results are measured, the method should allow a reader to distinguish projected savings from observed performance.

BAU’s contribution to Affordable and Clean Energy is strongest when the campus itself becomes a documented example and the lessons are shared responsibly. Linking research, engineering education and local partnerships with consistent operating data would strengthen both the university’s performance and its wider contribution.