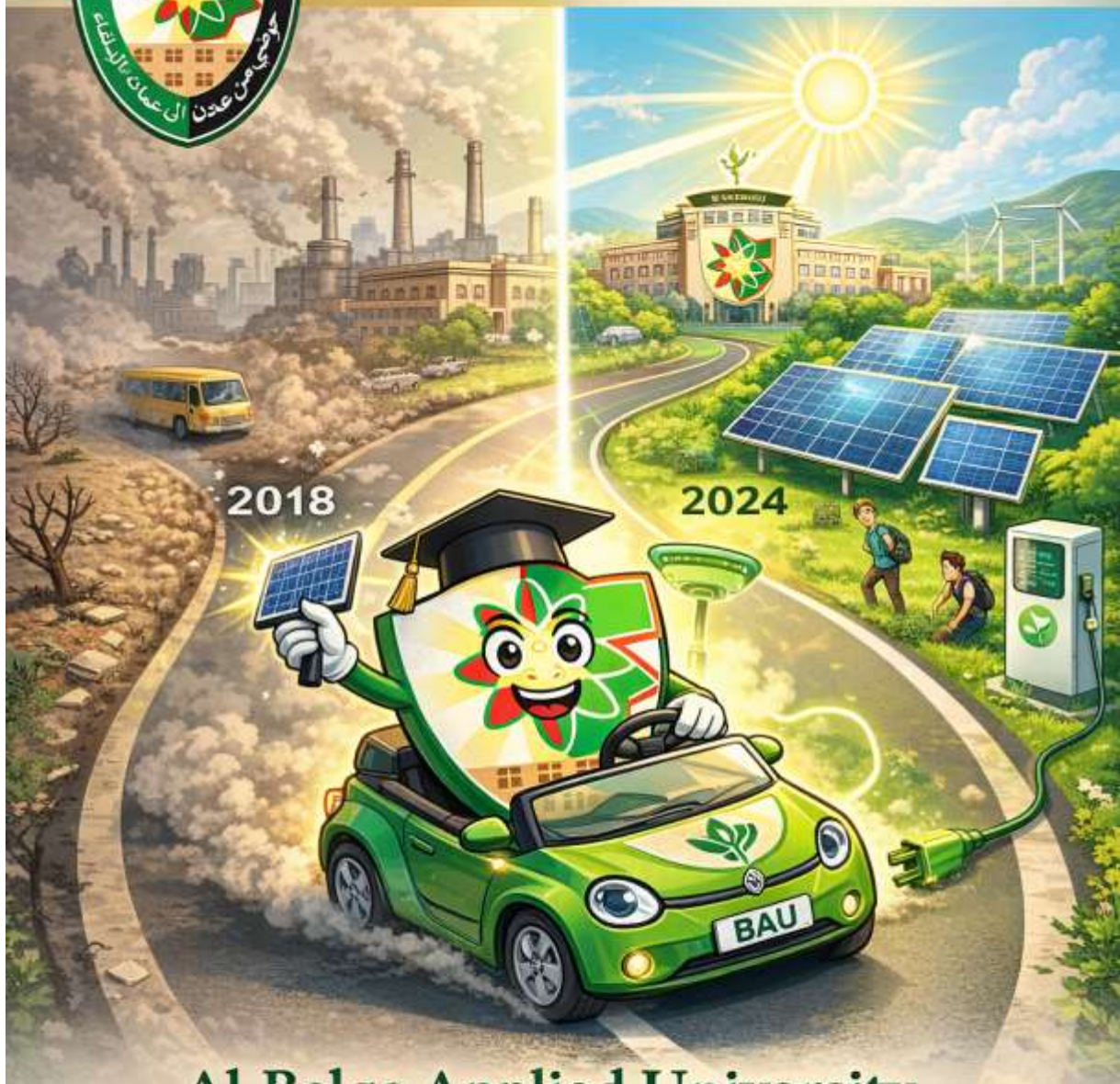




Al-Balqa Applied University



Al-Balqa Applied University

Leading the Transition Towards a Sustainable Future

Carbon Footprint Report 2025

Introduction

Al-Balqa Applied University (BAU) is a public university in the Hashemite Kingdom of Jordan. The university has a student population of over 60,000 students and satellite campuses across the country. Driven by its vision, BAU aspires to emerge as a globally renowned applied university, distinguished by its commitment to creativity, innovation, and applied scientific research. Furthermore, it aims to foster leadership among its students and faculty, empowering them to make meaningful contributions to both the knowledge economy and society, both within Jordan and on a global scale.

The estimated total area of BAU is around (11100000 m²). BAU's campuses boast a diverse array of facilities. From educational and research centers to medical, sports, and cultural amenities, BAU provides a holistic environment for learning, growth, and development. Moreover, the university prides itself on its ample green spaces and student recreation areas, fostering a vibrant and conducive atmosphere for academic pursuits and personal enrichment.



The main Campus located on a mountain at Al Salt City

[As-Salt](#) is renowned for its rich cultural and historical significance, being home to numerous important sites, including a [UNESCO world heritage](#) site. Originally built by Macedonians, [As-Salt](#) served as a pivotal trading hub throughout various periods, including Roman, Byzantine, and Mameluke eras.

In addition to its historical allure, As-Salt offers proximity to several noteworthy landmarks. Just a 20-minute drive away lies the [Dead Sea](#), the lowest point on Earth, renowned for its therapeutic properties. Moreover, the city is situated in close proximity to the [holy baptism site of Jesus Christ](#) on the East bank of the Jordan River. On a sunny day, visitors to As-Salt are treated to awe-inspiring views of the holy lands, adding to the city's charm and allure.

Alongside BAU's main campus, the university's satellite campuses are hubs for quality education and research and offer students the opportunity to explore Jordan's rich cultural heritage. For example, [Aqaba University College](#) located in Jordan's only port, offers maritime transport technology programs as well as easy access to the golden triangle of [Petra](#), [Wadi Rum](#) and [Aqaba](#). And Shoubak University College, which is located close to the stunning [Dana Biosphere Reserve](#). and [Huson University College](#) in the north, which is closest to [Jerash](#) which is the second to Petra on the list of favorite destinations in Jordan

Al-Balqa Governorate is a province of intellectual heritage and folklore, making it a prominent destination for both recreational and religious tourism. Visitors can explore a myriad of ruins and sacred shrines, including those dedicated to Prophet Shu'ayb (Maqam Nabi Shu'ayb), Prophet Joshua Ben-nun, Prophet Gad Ben Jacob, Prophet Ayub, Prophet Hazir, and Prophet Gilad (May Peace Be Upon Them). Additionally, the governorate is home to the revered shrines of two companions of Prophet Mohammad (Peace Be Upon Him): Abu Obeida Al-Jarah and Dirar Ibn Azwar.

Such an integral role along with other cities of the Kingdom was deeply rooted during the establishment of the Emirate of Jordan in 1921 moving towards developing the country. Salt City was prominent with its scientific and educational legacy, which was marked by the founding of Salt School, inaugurated by His Majesty King Abdullah the First – may God rest his soul – (Prince at that time) in 1923, to be the first school in the kingdom having its graduates as great officials and leaders of the nation.

Upon firmly acknowledging the educational and scientific long history of Salt City along with its leading role in the field of education by the Hashemite leadership, Late King Hussein Bin Talal – May God rest his soul – honored Balqa' governorate by the issuance of the royal decree to establish Balqa' Applied University in Salt city on the 22nd of August 1996. This has enhanced the city's role, commemorated the pioneers of its early graduates, and scientifically empowered its legacy which we hope to continually flourish.

Our Strategic Response

Al-Balqa Applied University extends its reach across Jordan through its network of campuses, strategically positioned to encompass the diverse climatic regions of the nation. From the highlands in the mid-west to the arid governorates in the south and far east, BAU's campuses span a spectrum of climatic conditions. This geographical diversity serves as a catalyst for BAU's commitment to addressing climate variability and change, with a primary emphasis on climate adaptation strategies.

Renowned for its innovation, BAU leads the way in water and drought research, capacity building, and cutting-edge technology transfer initiatives. These initiatives encompass a wide array of areas, including solar energy utilization, wastewater treatment for reuse, and advancements in smart agriculture practices. Additionally, BAU has developed academic programs specializing in smart agriculture, water treatment, smart building technologies, and electric and hybrid vehicles. Furthermore, the university actively engages in various awareness campaigns and educational activities aimed at addressing the challenges posed by climate change.

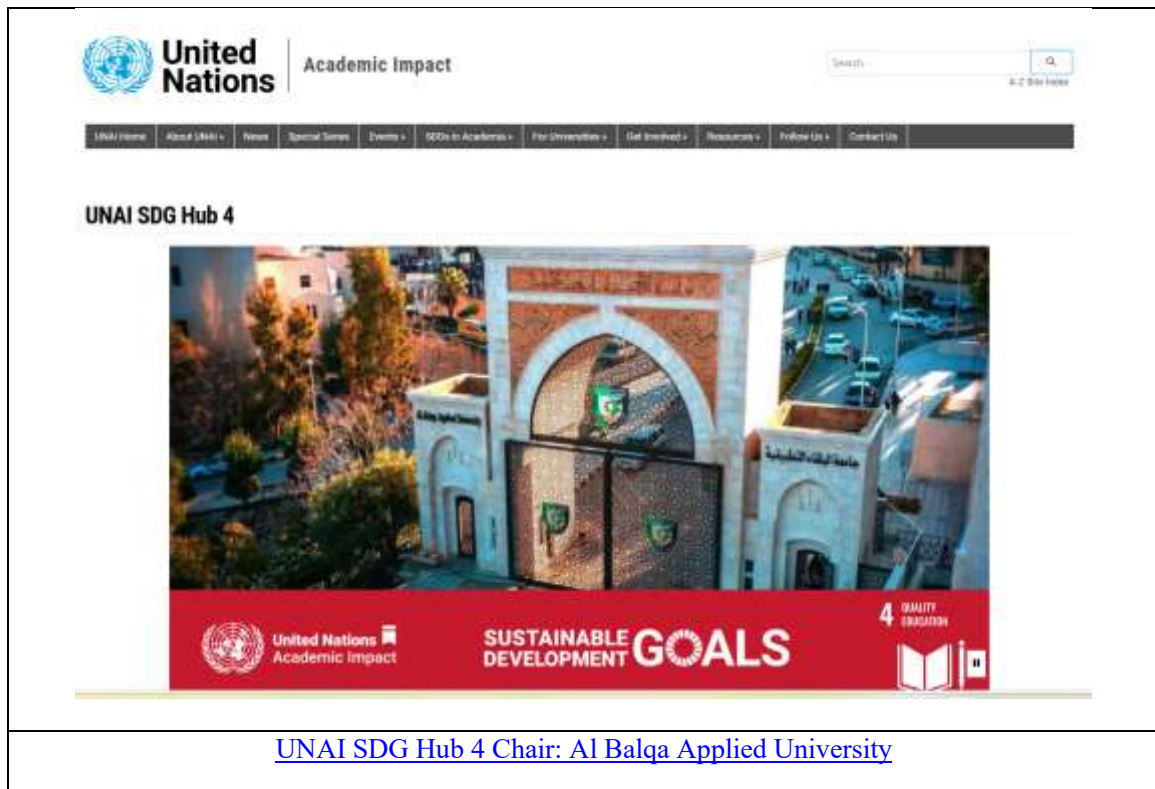
Al-Balqa Applied University (BAU), Jordan, collaborates with around 193 nations to achieve the Sustainable Development Goals (SDGs) by 2030 through strategic operational frameworks addressing vital environmental challenges. BAU's commitment to sustainability and ecological matters is evident in its diverse programs of educational research and policy analysis, which aim to strengthen its integration. The university emphasizes the essential role of higher education institutions in providing quality education, decent work environments, supporting gender equality, fostering economic growth, and reducing inequality and poverty. BAU actively trains its staff, students, and local communities on sustainable development, focusing on environmental issues through comprehensive educational and training programs, workshops, and public outreach events. This dedication to sustainability solidifies BAU's reputation as a leading institution in the region, creating lasting environmental impacts and driving sustainable development initiatives that promote sustainable practices and empower individuals to effect positive change.



UNITED NATIONS
JORDAN



United Nations
Jordan



BAU's dedication to advancing under the (SDGs) by setting up several initiatives. BAU serves as the chair of the **United Nations Academic Impact (SDG 4 Hub: Quality Education)**, which promotes inclusive education with lifelong learning opportunities. The university stresses the value of partnership-based sustainable development by partnering with multiple institutions to advance SDGs. The university shows its dedication to sustainable development advancement in Jordan by concentrating on conducting training sustainability programs for different segments.

Al-Balqa Applied University (BAU) is committed to playing an active role in combatting climate change and mitigating its adverse effects on both the environment and society. In line with national and international efforts to address the climate crisis, BAU is dedicated to monitoring its carbon footprint meticulously and evaluating the environmental impact of its operations. This involves promoting the use of low- and zero-emission vehicles, implementing sustainable transportation solutions, and advocating for the adoption of renewable energy sources.

Moreover, BAU prioritizes enhancing energy efficiency and implementing robust waste management practices across its campuses. The university offers academic programs that integrate principles of climate change and practical applications, fostering a culture of environmental stewardship among its students, in addition to that, BAU actively promotes technological innovation, international collaboration, and strategic

Carbon Footprint

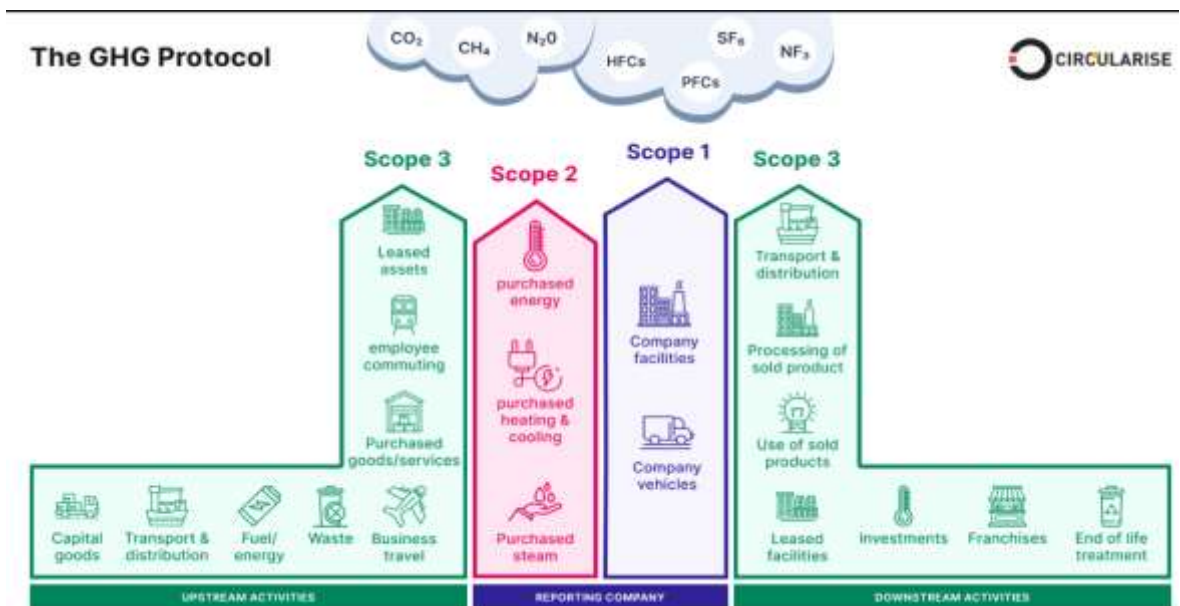
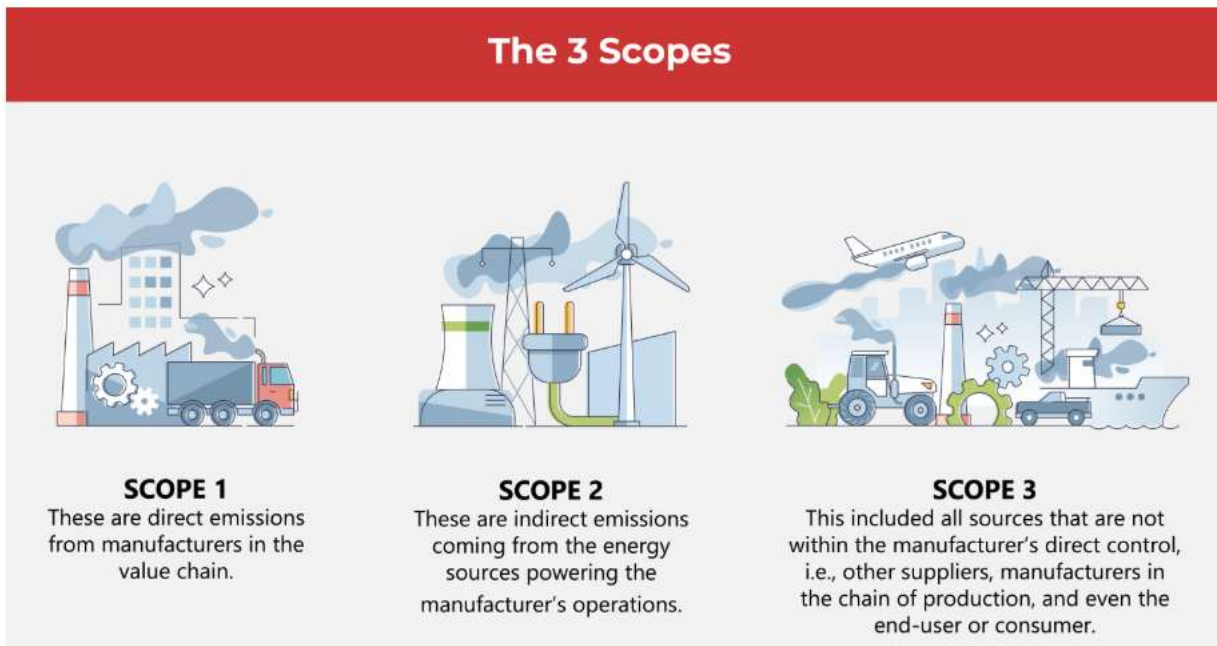
For Al-Balqa Applied University (BAU), the pursuit of global sustainability benchmarks has served as a critical institutional catalyst, transforming environmental monitoring from a passive exercise into a core strategic priority. Since joining the UI GreenMetric World University Ranking, BAU has utilized the framework's rigorous methodology to move beyond mere compliance, using standardized assessments of greenhouse gas emissions—primarily from electricity and transportation—to drive meaningful operational change. This ranking system acted as the primary activation mechanism for BAU's climate strategy, sparking a dramatic shift in the university's carbon trajectory: after peaking at 9,099.6 tCO₂e in 2018, emissions were systematically dismantled, reaching a remarkable low of just 185 tCO₂e in 2024. This achievement was fueled by a commitment to the UN Sustainable Development Goals (SDGs) and the landmark establishment of a 7-megawatt solar park. By aligning institutional performance with international sustainability rankings, BAU has not only reduced its reliance on fossil fuels but has also solidified its role as a leader in higher education, demonstrating how global accountability frameworks can empower universities to become frontline agents in the fight against climate change.



Methodology:

Carbon footprints Protocol

The scope of the carbon footprint protocol encompasses the boundaries and categories of greenhouse gas emissions considered during the calculation and evaluation of an entity's carbon footprint. This protocol precisely defines the aspects of an organization's activities or operations that will be included in the assessment of carbon emissions. Generally, carbon footprint assessments involve the utilization of three scopes: scope 1, scope 2, and scope 3.



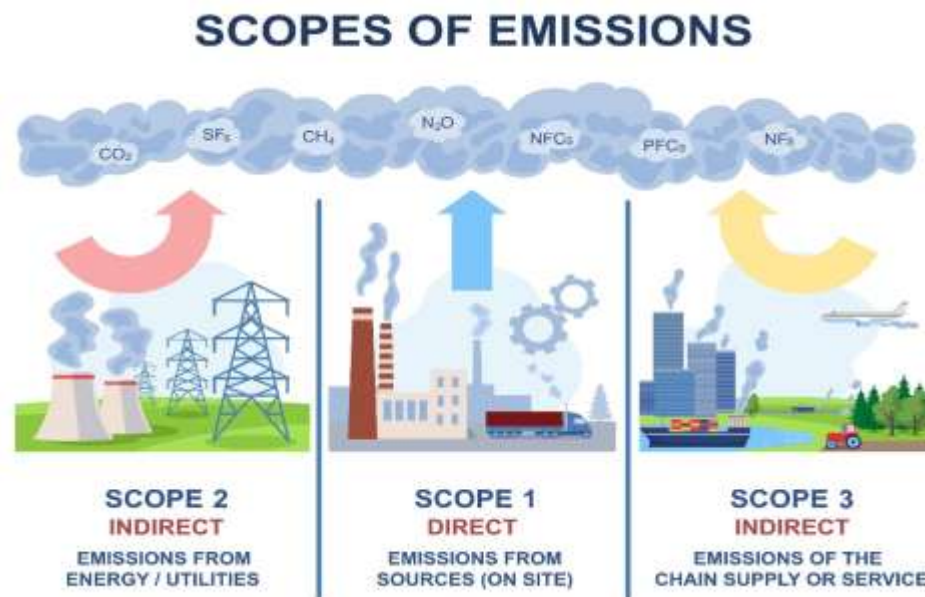
Scope 1: Direct Emissions

Section 1: Scope 1 – Direct Greenhouse Gas Emissions

This section details the Scope 1 inventory for Al-Balqa Applied University (BAU), encompassing all direct greenhouse gas (GHG) emissions from sources physically owned or operationally controlled by the institution. These emissions represent the university's immediate carbon footprint, arising exclusively from core institutional activities:

- **Stationary Combustion:** Diesel fuel consumption utilized for campus-wide heating systems and thermal requirements.
- **Mobile Combustion:** Emissions generated by the university's fleet of owned vehicles and internal logistics.
- **LPG Consumption:** Liquefied Petroleum Gas used within university food services and hospitality operations (e.g., hot beverage preparation).

The data presented in the following table establishes a formal baseline for BAU's carbon accounting. In a major step toward transparency and environmental stewardship, the university has recently institutionalized a systematic carbon monitoring framework.



By transitioning to this rigorous reporting structure, BAU not only aligns its operations with Jordan's national climate action goals but also strategically enhances its performance within the Times Higher Education (THE) Impact Rankings. This initiative reinforces BAU's leadership role in the higher education sector, demonstrating how academic institutions can transform operational data into meaningful global climate contributions.

- **Thermal Envelope Enhancement:** The widespread use of double-glazed windows improves thermal insulation and facilitates natural ventilation, directly lowering the university’s reliance on mechanical HVAC (Heating, Ventilation, and Air Conditioning) systems.
- **Passive Cooling:** In accordance with the Ministry of Public Works and Housing guidelines, BAU utilizes extended concrete surfaces to provide structural shading. This reduces solar heat gain and further decreases energy demand during peak thermal periods.



Compliance and Regulatory Frameworks

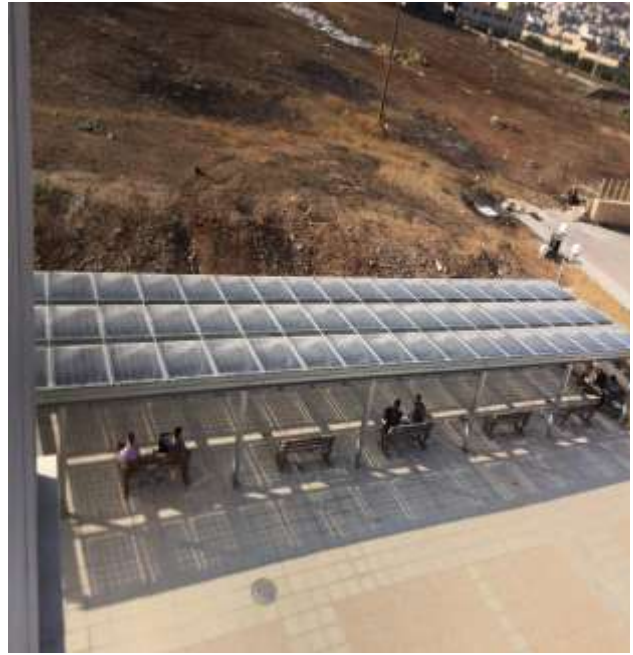
To ensure accountability and technical rigor in its sustainability efforts, BAU adheres to established national standards:

Ministry of Public Works and Housing Guidelines: Directing green construction practices and building material efficiency.

Sustainable Facilities Management Guide (Ministry of Environment): Ensuring that ongoing operations and maintenance cycles prioritize environmental responsibility and resource conservation.

Impact on Sustainability Goals

By embedding these green design principles into its physical infrastructure, BAU is proactively fostering an eco-conscious campus. These initiatives serve a dual purpose: they create a healthier, more efficient learning environment for the university community while contributing measurable progress toward national and global carbon neutrality targets in the higher education sector.



Sustainability technologies such as building insulation in addition to enhance natural ventilation and skylight of buildings



General view of BAU main Campus

Smart Building Integration and Operational Efficiency

Al-Balqa Applied University has transitioned toward an intelligent infrastructure model, recognizing that real-time data and automated control are essential to achieving deep decarbonization. By investing in state-of-the-art smart building technologies, the University has moved beyond passive design into active resource optimization.

Integrated Smart Systems for Emissions Reduction

The implementation of these technologies serves as a cornerstone of BAU's emissions reduction strategy, focusing on four critical pillars of operational efficiency:

- **Building Automation Systems (BAS):** Centralized control of HVAC, lighting, and electrical loads ensures that energy is only consumed when and where it is needed, eliminating waste from unoccupied spaces.
- **Real-Time Resource Monitoring:** Advanced sensors provide continuous data on energy and water consumption. This visibility allows for the rapid identification of inefficiencies or leaks that would otherwise contribute to a higher carbon and environmental footprint.
- **Integrated Smart Metering:** By deploying granular metering solutions, BAU can track departmental energy intensity, facilitating data-driven decisions for future sustainability investments.
- **Advanced Safety and Suppression:** The integration of modern fire detection and suppression systems ensures campus resilience and protects high-value, energy-intensive research infrastructure.

National Leadership in Intelligent Design

Through the adoption of these innovative solutions, BAU is not merely reducing its localized environmental impact; it is establishing a scalable blueprint for intelligent, sustainable campus design within the Jordanian

higher education sector. This digital transformation of the physical campus ensures that operational excellence and environmental stewardship are inextricably linked.

Sustainable Transportation Initiative

2.5 Sustainable Mobility and Fleet Electrification

Al-Balqa Applied University (BAU) has integrated sustainable transportation as a vital component of its carbon reduction strategy. Recognizing that campus-related travel and vehicle operations contribute significantly to Scope 1 and Scope 3 emissions, the University has launched a comprehensive electric vehicle (EV) transition program. This initiative aligns with the Jordan National Green Taxonomy and the university's Zero Emission Vehicle (ZEV) Policy.

Strategic Pillars of the EV Transition

The program is structured around three primary areas of impact to ensure a holistic transition to low-carbon mobility:

- **Institutional Fleet Electrification:** BAU is committed to the phased replacement of internal combustion engine (ICE) vehicles with electric alternatives. This transition is supported by the deployment of on-campus charging infrastructure, providing essential technical support for the university's operational fleet.
- **Charging Infrastructure & Accessibility:** To facilitate broader adoption, the university has installed dedicated charging stations across its campuses. These facilities offer complimentary charging to faculty, staff, and students, effectively removing infrastructure barriers for the university community.
- **Capacity Building and Awareness:** Beyond physical infrastructure, BAU leverages its academic expertise through the ECO-CAR Project. This initiative provides specialized vocational training and professional diplomas in EV and Hybrid Electric Vehicle (HEV) maintenance, fostering a culture of technical proficiency and environmental responsibility.

Impact on Emissions and National Leadership

The EV transition program delivers measurable benefits to the university's sustainability profile:

1. **Direct Emission Reductions:** A significant decrease in Scope 1 emissions is achieved by substituting diesel and gasoline consumption with clean energy, often supported by the university's 7 MW solar station.
2. **Scope 3 Mitigation:** By incentivizing faculty and student EV adoption through awareness campaigns and free charging, BAU actively reduces the carbon footprint associated with daily commuting.
3. **National Alignment:** This program directly supports Jordan's Green Growth National Action Plan, positioning BAU as a leader in demonstrating scalable, sustainable mobility solutions within the Kingdom's higher education sector.

Through these combined efforts, the EV program serves as both an immediate decarbonization measure and a strategic long-term investment in the future of sustainable campus operations.

Solar Panels + Solar collector (Thermal energy)



Smart Building Implementation

Renewable Energy Integration: Solar Thermal Systems

Integration of On-Site Renewable Energy for Experimental and Operational Use

As part of Al-Balqa Applied University's commitment to reducing its carbon footprint, the institution has prioritized the installation and maintenance of on-site solar energy systems. These systems serve a dual purpose: providing clean, carbon-neutral energy for campus operations and acting as living laboratories for advanced research in renewable energy technologies.

On-Site Solar Assets and Technical Specifications

The university utilizes various photovoltaic (PV) configurations to optimize energy yield and reduce reliance on the national grid. A key component of this strategy includes:

- **Photovoltaic Thermal (PVT) Systems:** As illustrated in the university's research facilities, BAU employs integrated PVT systems. These units simultaneously generate electricity and capture thermal energy, significantly increasing the overall efficiency per square meter of rooftop space compared to standard PV panels.
- **Solar Water Heating:** In addition to electrical generation, the campus utilizes solar thermal collectors to provide hot water for facilities, directly offsetting the Scope 1 emissions typically associated with diesel-fired boilers.
- **Decentralized Energy Generation:** By distributing these systems across various campus rooftops, BAU reduces transmission losses and ensures a resilient, localized energy supply that supports the university's sustainability targets.

Research and Carbon Mitigation Synergy

The deployment of these solar technologies is closely linked to the university's academic mission. By monitoring the real-time performance of these on-site assets, BAU can:

1. **Validate Emission Factors:** Use primary data from on-campus generation to calculate precise carbon offsets for the annual CO2 footprint report.
2. **Advance Solar Innovation:** Conduct longitudinal studies on panel degradation, dust accumulation (soiling) impacts, and cooling techniques—research that is vital for optimizing solar performance in the Jordanian climate.
3. **Educational Leadership:** Provide students with hands-on experience in the operation and maintenance of renewable infrastructure, fostering the next generation of energy professionals.

Through the strategic expansion of these on-site renewable energy systems, Al-Balqa Applied University continues to demonstrate its proactive role in Jordan's transition toward a sustainable, low-carbon future.



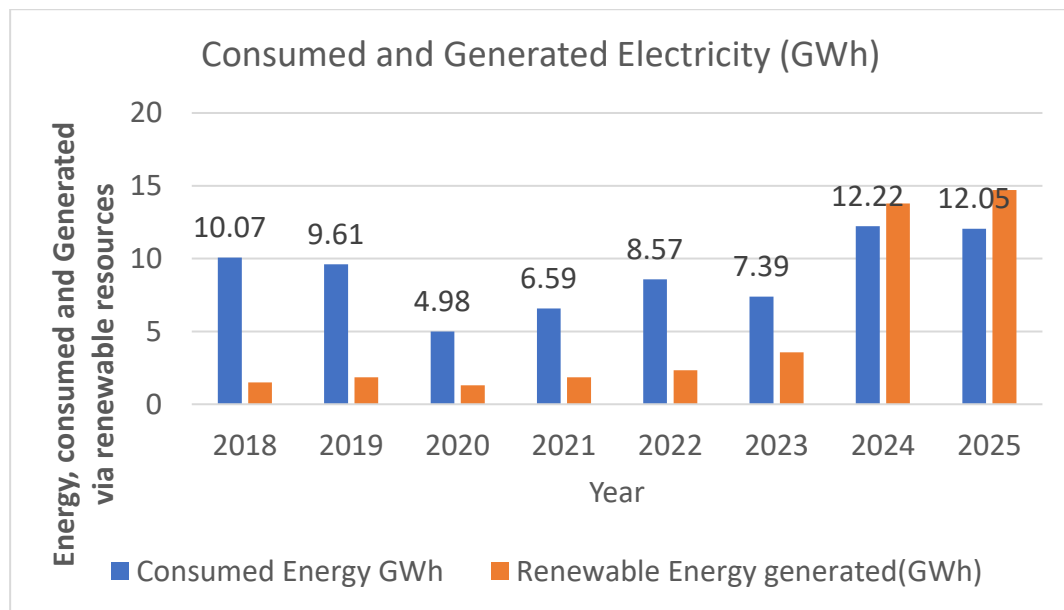
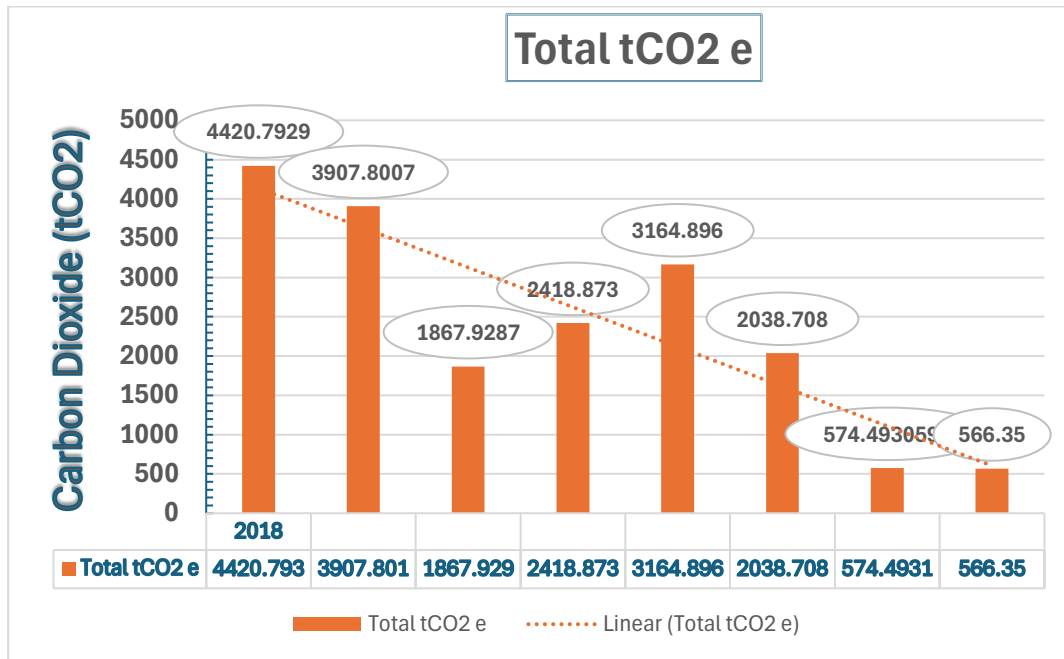
Scope 2: Indirect Emissions (Electricity and Heat)

These emissions cover the indirect greenhouse gas emissions associated with the consumption of purchased electricity. While these emissions are produced off-campus at the point of generation, they are directly attributable to the university's operational energy demand.

As of 2024-2025, BAU has made significant progress in mitigating its Scope 2 footprint through the full operation of its 7 MW AC (9.634 MWp) Solar PV Plant. This facility, located at the Princess Tasneem Bint Ghazi Technological Research Station, generates approximately 14.7 GWh (14,700,000 kWh) annually. By substituting grid-purchased electricity with on-site renewable generation, the university avoids approximately 7,892 tonnes of CO₂e each year.

The following table illustrates the carbon dioxide footprint equivalent associated with the electrical power consumed across BAU premises, based on current utility data and the national grid emission factor for Jordan: [National Electric Power Company](#) concerning sharing of fuel used to generate electricity.

year	2018	2019	2020	2021	2022	2023	2024	2025
Consumed Energy kWh	10070000	9605801	4984597	6585222	8569838	7386182	12223267	12050000
The energy consumed is produced through renewable resources, such as hydro, wind, and solar power (kWh)	1487131	1850223	1299809	1858742	2342067.5	3567769	13780958	14700000
kg CO ₂ e	70437.39	88845.43	62382.54	87345.64	110472.35	167685	574493.1	566350
Energy Consumption is sourced from national power generation that rely on fossil fuels, including natural gas, diesel, and heavy oil	8582869	7755578	3684788	4726480	6227770.5	3818413	0	0
kg CO ₂ e	4350356	3818955	1805546	2331527	3054423.6	1871022	0	0
Total kg CO₂ e	4420793	3907801	1867929	2418873	3164896	2038708	574493.1	566350
Total tCO ₂ e	4420.8	3907.8	1867.9	2418.9	3164.9	2038.7	574.5	566.4



The provided chart illustrates the evolution of electrical energy consumption and renewable energy generation at Al-Balqa Applied University (BAU) from 2018 to 2025. From a CO2 Footprint perspective, the following strategic insights can be highlighted:

Transition to "Net-Positive" Energy Status

The year 2024 marks a historical turning point for the university's sustainability profile. For the first time, renewable energy generation (orange bar) surpassed the total energy consumed (blue bar).

- In 2024, generation reached approximately 13.75 GWh against a consumption of 12.22 GWh.

- This trend strengthened in 2025, with generation peaking at 14.7 GWh while consumption remained stable at 12.05 GWh.

Elimination of Scope 2 Emissions

As of 2024, BAU has effectively achieved Net-Zero Scope 2 emissions. By generating more clean energy than it consumes from the national grid, the university is no longer a net contributor to carbon emissions related to purchased electricity. Instead, it acts as a carbon-offsetting entity by exporting surplus clean energy back to the grid.

Consumption Trends and Post-Pandemic Recovery

- The sharp decline in 2020 (4.98 GWh) reflects the operational shutdown during the COVID-19 pandemic.
- Following the resumption of full academic activities, consumption rose but showed signs of stabilization by 2025 (12.05 GWh). This stabilization, despite campus growth, suggests that the smart building and energy efficiency policies discussed in previous sections are successfully decoupling institutional growth from energy demand.

Impact of the 7 MW Solar Project

The data reveals a dramatic "leap" in renewable output starting in 2024. While generation was relatively marginal between 2018 and 2022, the full commissioning of the 7 MW AC (9.634 MWp) Solar PV Plant transformed the university's energy profile. This massive increase in clean energy production is the primary driver behind the university's radical reduction in its carbon footprint.

Summary for the BAU Report: This data confirms that Al-Balqa Applied University has successfully transitioned from an energy consumer to a clean energy producer. By 2025, the university's renewable energy surplus directly contributes to Jordan's national green energy targets, positioning BAU as a regional leader in sustainable higher education infrastructure.

A noticeable decrease in the amount of carbon dioxide emissions is observed for the year 2023. This is a direct result of the Jordanian Ministry of Energy and Mineral Resources' approach to increasing the participation of energy sources in meeting the Kingdom's needs, as well as the plan of the Al-Balqa Applied University to cover its entire electricity needs with clean energy by 2025. This will be achieved through the 7-megawatt solar power plant, which was built over the past two years and began experimental operation in September 2023

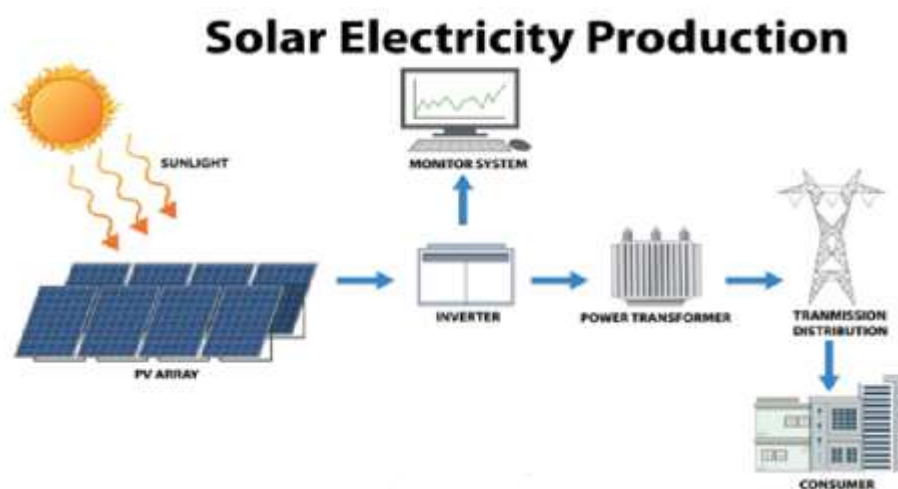
Conclusion: Decarbonization Milestones and Future Outlook

The longitudinal energy data confirms that Al-Balqa Applied University has successfully transitioned from a conventional energy consumer to a net-positive clean energy producer. This shift marks a defining milestone in the university's environmental stewardship and its alignment with Jordan's national sustainability agenda.

Analysis of Emission Reductions (2023–2025)

A significant downward trend in carbon dioxide emissions was first recorded in 2023. This reduction was driven by two concurrent strategic factors:

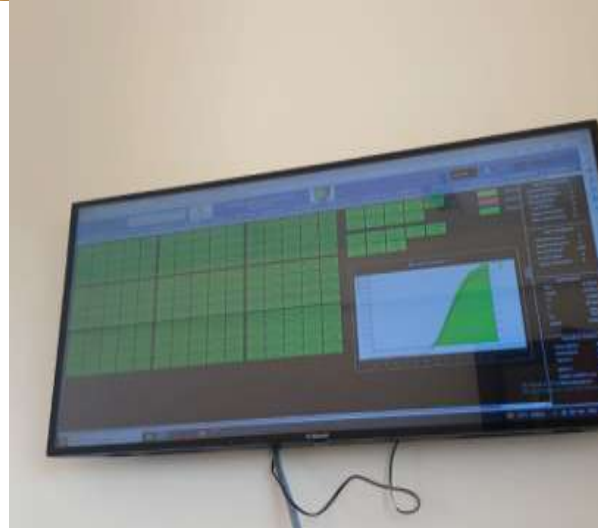
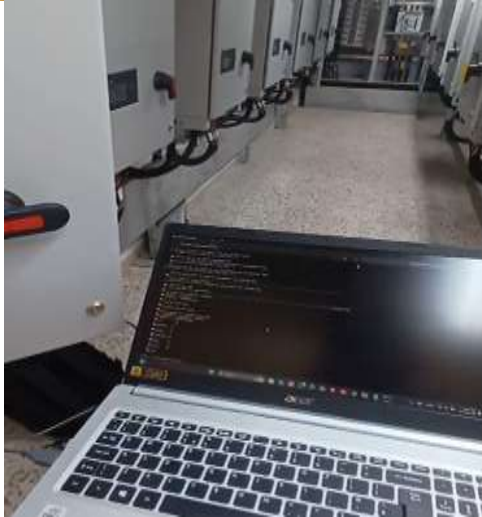
- **National Grid Decarbonization:** The Ministry of Energy and Mineral Resources’ intensified integration of renewable sources into the national energy mix, lowering the baseline grid emission factor.
- **BAU’s Renewable Infrastructure Expansion:** The commencement of experimental operations at the university’s 7 MW AC Solar Power Plant in September 2023.



Achieving Energy Autonomy

By 2025, the full commissioning of the 7 MW facility—developed over a two-year intensive construction phase—has enabled BAU to cover 100% of its electrical requirements through on-site clean energy.

The resulting renewable energy surplus does more than just offset the university's footprint; it directly supports Jordan’s Green Growth National Action Plan by feeding zero-emission electrons back into the national utility framework. Consequently, BAU has solidified its position as a regional leader in sustainable higher education infrastructure, demonstrating a scalable model for institutional carbon neutrality.

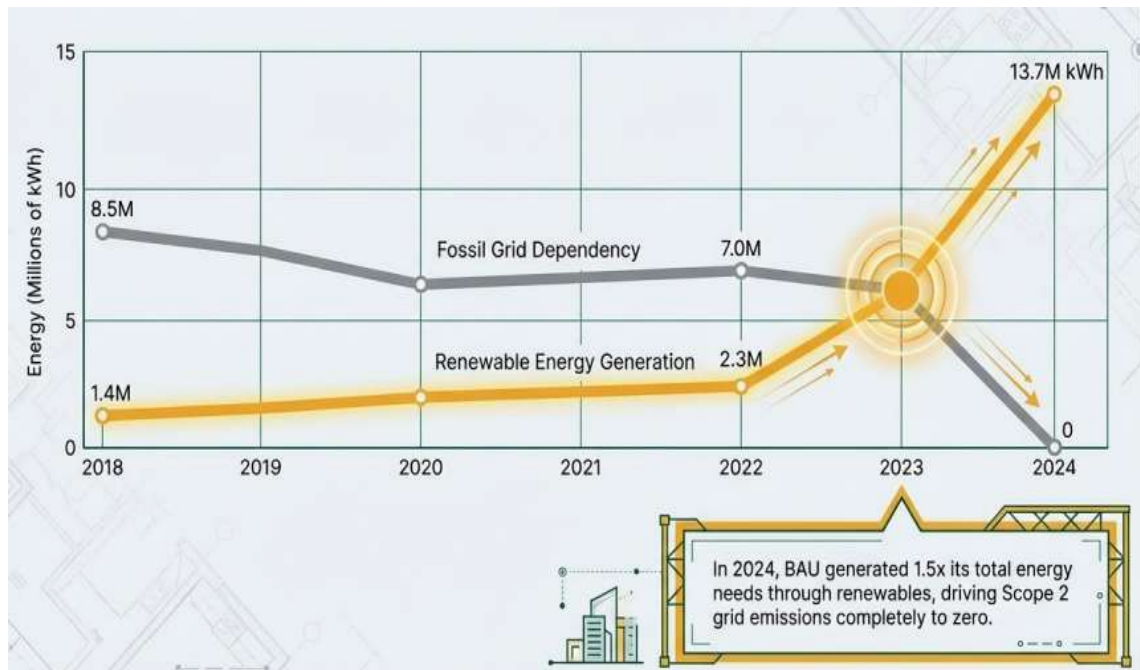


Monitoring and Analysis of Solar Energy Production

What does BAU do to reduce Indirect Emissions?

1. Reducing Scope 2 Emissions: Transition to Renewable Energy

- **Solar System Integration:** BAU has installed solar energy systems across many of its buildings using **photovoltaic (PV) glass sheets** and **solar roof coverage**, effectively reducing reliance on grid-based electricity.
- **7MW Solar Park Project:** A major solar park (7 megawatts) is currently under construction, which will significantly reduce Scope 2 emissions by supplying clean, renewable energy for campus operations.
- **Solar Tracking Systems:** These systems are being deployed to **maximize energy capture** by adjusting the angle of solar panels throughout the day.



- **Energy-Efficient Building Practices:** The university enforces a strict **Energy-efficient Renovation and Building Policy** that includes:
 - **Metal cladding systems** for better insulation.
 - Use of **stone materials** for natural thermal regulation.
 - Optimization of building envelopes to reduce heating and cooling needs.

2. Reducing Scope 3 Emissions: Commuting and Campus Mobility

- **Data Collection on Transportation:** BAU has initiated field surveys and distributed questionnaires among students, academic staff, and employees to **gather commuting data**. This enables the university to:
 - Assess the carbon footprint of transportation to and from campus.
 - Design future interventions such as shuttle systems, carpooling programs, or incentives for public transport and electric vehicles.

3. Future-Oriented Monitoring and Planning

BAU's focus on **data-driven planning** ensures that reductions in indirect emissions are **measurable and continuously improved**. By integrating ICT systems and stakeholder engagement, the university creates a responsive and evolving sustainability strategy.

So, Through large-scale solar projects, building innovation, and efforts to understand and reduce transportation-related emissions, **BAU is actively minimizing its indirect emissions (Scope 2 and Scope 3)**. These steps reflect the university's dedication to **climate responsibility, clean energy transition, and sustainable campus development**, aligning with **SDG 7 (Affordable and Clean Energy)**, **SDG 11 (Sustainable Cities and Communities)**, and **SDG 13 (Climate Action)**.



Photovoltaic Solution Package
[AL-BALQA UNIVERSITY \(onyxsolar.com\)](http://onyxsolar.com)



Renewable at Alhusn site



Renewable energy (Solar panels)



New solar park project with capacity 7MW



Lighting outdoor areas using Solar Panels and motion sensors/ parking

Region	Mera
Country	Jordan
Membership Level	Established Members

Jordan Green Building Council is a cross-sector non-governmental not-for-profit organization founded in 2009 in Jordan – Amman reporting to both ministries of social development and of environment. The mission of Jordan GBC is promoting and advocating the adoption of Green Building Practices in all phases of the building process, leading towards making Green Buildings a widespread reality in Jordan. To be recognized as the Reference for the Green Building ecosystem in Jordan while continuing global leadership, is their vision.

[Jordan Green Building Council](#)

Scope 3: Other Indirect Emissions



Planting more trees

Al-Balqa Applied University (BAU) exhibits a profound commitment to advancing sustainability by aligning its strategic and operational frameworks with the United Nations Sustainable Development Goals (SDGs), with particular emphasis on **SDG 13: Climate Action**. In its pursuit to reduce its carbon footprint and greenhouse gas emissions, the university has implemented a comprehensive array of programs, initiatives, and policies, as detailed below:

1- International Research Center for Water, Environment, and Energy

(IRCWEE):

BAU has established the **IRCWEE**, serving as a premier hub for applied scientific research in water, environment, energy, and sustainability. The center is dedicated to finding innovative solutions to [environmental challenges](#), including those related to [climate change](#), greenhouse gas emissions, and clean energy.

- 2- **Environmental Monitoring Center:** The University Deans Council has approved the creation of an **Environmental Monitoring Center** at Zarqa University College in the Zarqa Governorate. This center plays a pivotal role in identifying and monitoring environmental hotspots and in designing proactive and science-based environmental interventions.

3- Waste Management and Recycling Initiatives: BAU actively implements sustainable waste management practices. These include:

- Planting neem trees and other vegetation to enhance carbon sequestration.
- Converting organic waste into compost and natural fertilizers.
- Recycling inorganic materials, including electronic and electrical waste.
- Promoting organic agriculture by utilizing compost as a sustainable alternative to chemical fertilizers.

4- Digital Transformation and Paper Reduction

To minimize environmental impact, BAU is transitioning toward a paperless campus by:

- Adopting duplex printing policies.
- Promoting electronic correspondence and administrative workflows.
- Integrating cloud computing technologies to streamline documentation and communication.

5. Comprehensive Water Conservation Strategy

BAU employs an integrated approach to water sustainability, which includes:

- Installing water-saving devices.
- Conduct awareness campaigns to promote water conservation.
- Utilizing non-conventional water resources.
- Implementing reduce, reuse, and recycle methodologies in water management to ensure long-term sustainability.

6. Sustainable Procurement Policies

The university incorporates environmental, social, and economic considerations into its procurement processes by:

- Prioritizing the purchase of eco-friendly products and services.
- Collaborating with local suppliers and contractors who comply with national and international environmental standards.

7. Sustainable Transportation and Mobility

To reduce vehicular emissions and promote sustainable mobility across its campuses, BAU has:

- Restricted vehicle movement in selected areas and transformed them into green spaces.

- Encouraged carpooling and group transportation for faculty and administrative staff commuting from distant locations.

حصل مشروع التخرج الذي اشرفته عليه الدكتورة عبير الحباري من كلية الهندسة في جامعة البلقاء التطبيقية على جائزة نقابة المهندسين عن فئة المشاريع المتقدمة في القطاع الصناعي بالتعاون مع غرفة صناعة عمان، ويذكر أن المشروع مدعوم من صندوق الملك عبدالله الثاني للتنمية (KAFD) وبالتعاون مع المركز الاردني للتصميم و التطوير -JODDB-ضمن مشروع دعم البحث والابداع لطلبة الجامعات - RISP-.
وقدمت الدكتورة الحباري التهنئة لطلبتها بشرى المعنصم العمدة ورؤى ابو الندى على هذا الانجاز.
كما تقدمت الدكتورة الحباري بالشكر لإدارة الجامعة لدعمها مشاركة الطلبة في المسابقات المحلية والعالمية، وتحديث البنية التحتية والتكنولوجية في الكليات التقنية.



[Students from BAU receive the Engineers Association Award in the category of projects implemented in the industrial sector.](#)



[BAU Green Calendar](#)



[Projects Enhancing Environmental Sustainability](#)



[A Lecture on Sustainable Building Design](#)



[A scientific visit for students of the Renewable Energy Systems course.](#)



[The 4th International Conference on Artificial Intelligence for Disaster Management](#)



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