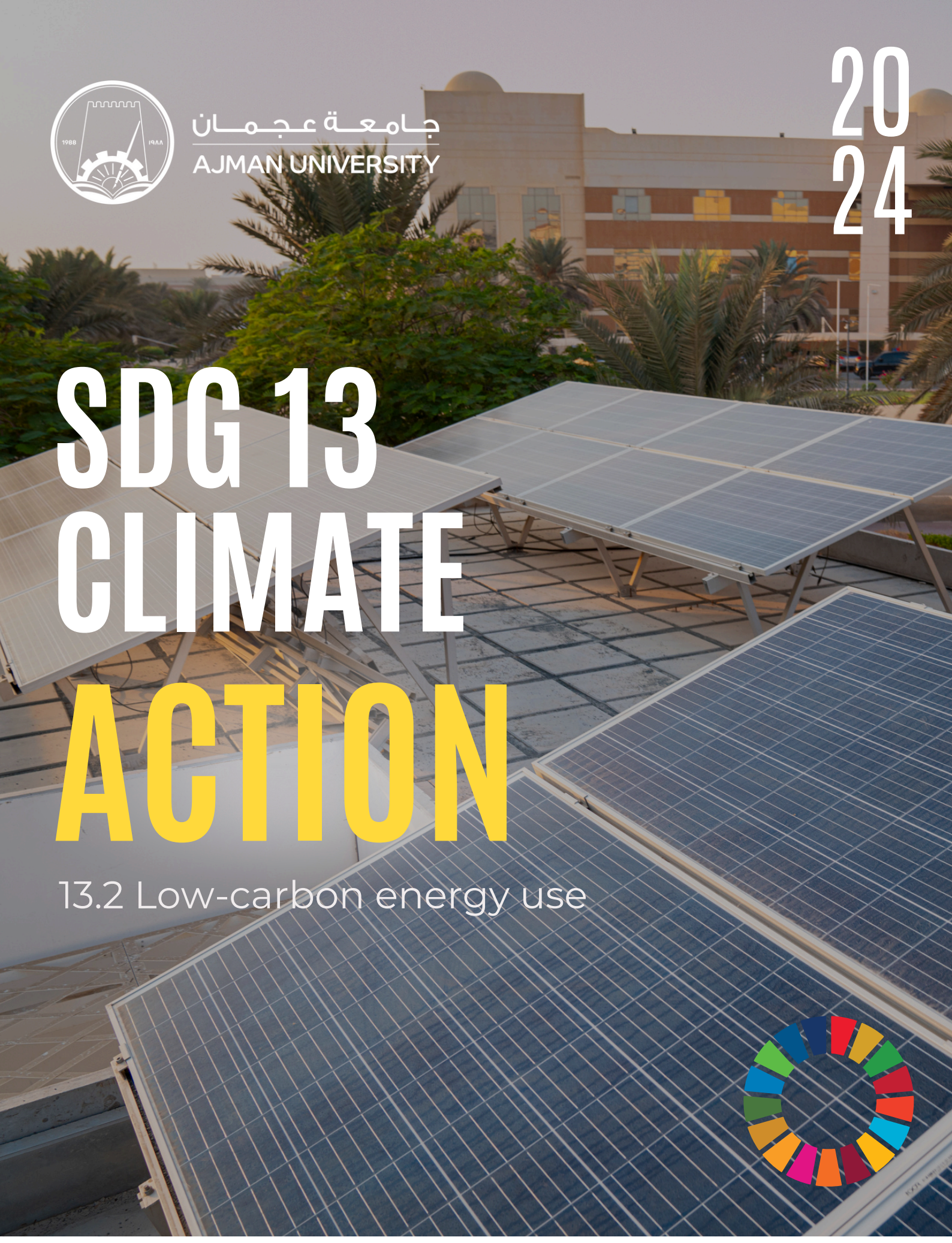
جامعة عجمان
AJMAN UNIVERSITY

2024

SDG 13 CLIMATE ACTION

13.2 Low-carbon energy use



THE GLOBAL GOALS

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Introduction

As the global climate crisis intensifies, institutions worldwide are increasingly recognizing the urgent need to adopt sustainable practices. Universities, as hubs of innovation and knowledge, play a pivotal role in driving this transition. This report delves into the University's commitment to sustainable energy practices and its alignment with UN Target 13.2.

By examining the University's low-carbon energy use, we aim to:

- Assess the carbon footprint: Quantify the environmental impact of the University's energy consumption.
- Identify areas for improvement: Pinpoint opportunities to reduce carbon emissions and enhance energy efficiency.
- Benchmark against peers: Compare the University's performance with other institutions.
- Inform future strategies: Develop evidence-based strategies to accelerate the transition to a low-carbon future.

To achieve these objectives, the report will focus on two key indicators:

1. **Low-carbon energy tracking (13.2.1):** This indicator assesses the University's ability to measure and monitor its low-carbon energy consumption. It is a fundamental step towards effective energy management and decision-making.
2. **Low-carbon energy use (13.2.2):** This indicator quantifies the proportion of the University's total energy consumption that originates from low-carbon sources. It provides a direct measure of the University's progress towards a more sustainable energy profile.

By analyzing these indicators, we can gain valuable insights into the University's commitment to environmental sustainability and its potential to contribute to a greener future.

Message from the VCFAA

We are proud to share our progress in reducing carbon emissions. Our University is actively implementing energy efficiency measures across our campus buildings.

As we navigate the complexities of the 21st century, the imperative to adopt sustainable practices has never been more urgent. Our University is committed to playing a leading role in addressing climate change and transitioning to a low-carbon future.

This report highlights our progress in tracking and reducing our carbon emissions. It is a testament to the collective efforts of our faculty, staff, and students.

We recognize that the journey towards sustainability is ongoing. We will continue to explore innovative solutions, invest in energy-efficient technologies, and foster a culture of environmental consciousness. By working together, we can create a more sustainable future for generations to come.

Reducing our carbon emissions is a top priority at Ajman University

RABI ALKHOFASH
VICE CHANCELLOR FOR FINANCIAL AND ADMINISTRATIVE AFFAIRS

13.2.1 Indicator: Low-carbon energy tracking

Low Carbon Energy Use

Ajman University's Climate & Sustainability Strategy 2022-2030 highlights its commitment to drive climate action goals in line with the UAE Green Agenda, Net Zero by 2050 Strategy, the National Climate Change Plan of the UAE 2017–2050, and the UN Sustainable Development Goals. Universities from various parts of the world have shown their willingness to become carbon-neutral in the future. Ajman University has accomplished important milestones in recent years, and we firmly believe in the University's dream team that can achieve carbon neutrality by 2030 and net zero by 2050. That will be an exponential achievement in our contribution to the national and global efforts to tackle climate change. Climate action is a collective action that involves all members of Ajman University. You have a chance to be part of the driving force that will reshape our future, ensure Sustainability and resilience, and preserve our environment and earth for future generations.

https://ehs.ajman.ac.ae/en/pages/au-carbon-emissions-reduction

The AU Climate and Sustainability Strategy 2022-2030 is a practical guide on how the University will deliver key climate commitments, such as reducing greenhouse gas emissions, supporting a carbon-neutral campus, reducing energy consumption, investing in energy optimization solutions and renewable energy, exploring new ways to decrease direct and indirect CO2 emissions, minimizing the environmental impact rating of the University activities and processes, and creating awareness on taking action for climate change. The strategy considers how to achieve resilience to the impacts of climate change across University operations and supports a smooth and fair transition to a low and eventually zero carbon future.

AU strategy on Climate and Sustainability, adopted in the year 2022, can be accessed at:
https://www.ajman.ac.ae/upload/files/ehs/AU_Climate__Sustainability_Strategy_Document_2022_2030.pdf

13.2.2 Indicator: Low-carbon energy use

Calculation of Carbon Footprint

After identifying all the activities and processes that generate GHG, including CO2 and its related gases from emission sources 1, 2, and 3, the carbon footprint of Ajman University has been calculated using 2020 as the base year.

Ajman University has applied the Greenhouse Gas Protocol (GHG PROTOCOL) to report emission sources. The GHG Protocol Corporate Accounting and Reporting Standard provides requirements and guidance for companies and organizations preparing a GHG emissions inventory. The GHG Protocol is the internationally recognized standard for greenhouse gas accounting on the corporate level. It was developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). Gases that trap atmospheric heat are called greenhouse gases (GHGs). Since these gases get trapped in the atmospheric layer instead of being released into space, they cause global warming.

For detailed information on our Carbon Emissions Report and reduction plan, please click here.

The reports on GHG Emissions by Ajman University, as conducted and reported by Axosomatic, can be accessed at:

https://ehs.ajman.ac.ae/upload/files/ehs/AU_GHG_Inventory_Report_-_Final_(2020_-_2022).pdf

https://ehs.ajman.ac.ae/upload/files/ehs/AU_GHG_Inventory_Report_-_Final_(2022_-_2023).pdf

https://sustainablecampus.ajman.ac.ae/upload/files/ehs/AU_GHG_Inventory_Report_Final_2023_-_2024_(Revised_Oct_2025)_1.pdf

Strategic Framework for Carbon Mitigation and Institutional Resilience

1. Commitment to Ambitious Climate Action

Ajman University has established a strategic commitment to lead in carbon mitigation and build institutional resilience against escalating climate risks. Acknowledging the profound impact of global warming, the University is dedicated to implementing a robust climate policy framework aimed at achieving a significant decrease of greenhouse gas (GHG) emissions. This commitment is operationalized through ambitious, science-aligned carbon reduction targets that comprehensively address our direct and indirect contributions to climate change.

2. Comprehensive GHG Accounting and Ambitious Targets

In strict alignment with the Greenhouse Gas Protocol corporate standard, AU's targets are expanding to encompass all relevant scopes of our carbon footprint. This begins with a firm foundation in Scope 1 and 2 emissions, providing a precise understanding of our direct emissions from fossil fuels and indirect energy consumption. Critically, we are advancing to incorporate Scope 3 emissions, which include indirect value chain contributions such as business travel, procurement, waste generation, and embodied carbon in materials. This comprehensive accounting ensures a complete picture of our total carbon emissions, including major gases like carbon dioxide (CO_2) and methane. Our multi-scope targets are designed with varying timelines and reduction intensities, yet all converge on the ultimate goal of transitioning the University towards a net zero emissions future, necessitating a fundamental shift away from dependence on fossil fuels and a strategic pivot towards renewable energy.

3. A Multi-Faceted Strategy for a Low-Carbon Future

To achieve these targets, AU is deploying an integrated portfolio of strategies focused on both mitigation and adaptation. Key initiatives include:

- Enhancing Energy Efficiency and Conservation: Implementing campus-wide upgrades to drastically improve energy efficiency and promote energy conservation behaviors.
- Transitioning to Renewable Energy: Procuring and generating renewable energy to power campus operations, moving steadily towards a zero-emissions energy profile.
- Exploring Innovative Carbon Capture: Investigating advanced technologies for carbon capture and utilization.
- Expanding Carbon Sequestration through Urban Forestry: Investing in urban forestry projects on and around campus, which serve as a vital natural solution for carbon sequestration while enhancing local biodiversity and community well-being.

4. Embedding Sustainability through Performance Management

The institutional drive for sustainability is fortified by a performance management system where Key Performance Indicators (KPIs) are assigned to each academic and operational unit. This aligns directly with the strategic goal to "Enhance Institution Sustainability" as outlined in the AU Strategic Plan 2022-2027. By embedding these metrics, AU ensures that accountability for reducing carbon emissions and advancing broader sustainability goals is shared across the entire organization.

5. Data-Driven Planning for Long-Term Resilience

Our approach is grounded in rigorous data analysis. By evaluating a wide range of data on energy use, carbon dioxide (CO_2) emissions, and other relevant factors, the University develops predictive models and detailed sustainability scenarios. These analyses are critical for forecasting our trajectory, assessing the potential impact of various interventions, and making informed strategic decisions. This proactive, data-driven stance is essential not only for mitigating our contribution to climate change but also for building adaptive capacity to withstand potential climate change disasters, safeguarding our community and operations for the long term.

This comprehensive strategy underscores AU's dedication to being a leader in the global effort to limit temperature rise and create a sustainable, resilient future.

Key Performance Indicators at Ajman University

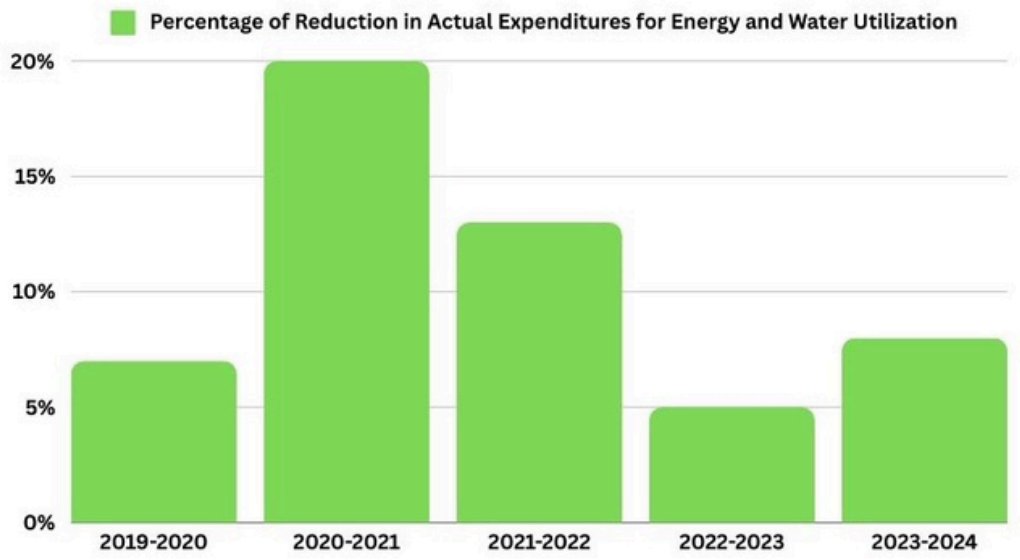
In Fall 2018, Ajman University adopted an annual key performance indicators (KPIs) based evaluation system for its Colleges/ Offices/ Units. Each Unit was assigned a set of KPIs mapped to six of AU's strategic goals. This is a standard process that is repeated every academic year. As part of AU's commitment to the UAE Climate strategy, the relevant KPIs were adopted to measure the low carbon energy consumption. Most key offices were assigned to take initiatives during the year that can contribute to 17 UN SDGs. Some of the relevant KPIs assigned during the AY 2023-2024 were:

Office	KPI_2023-24	Base 2022-23	Target 2023-24	Achieved
Office of Sustainability	# Activities carried out to support zero waste/carbon neutral campus and UN SDGs	6	8	11
	# AU community satisfaction with Sustainability related initiatives	NA	4.1	4.59
	# Students participating or collaborating in hosting activities or events related to sustainability	NA	70	115
	# Students/ Employees who received a Sustainability/ EHS training	25	20	60
	# Sustainability/ EHS awareness sessions	5	4	6
	# EHS internal audits performed	5	4	6

Key Performance Indicators at Ajman University

Office	KPI_2023-24	Base 2022-23	Target 2023-24	Achieved
Deanship of Student Services	# Community activities or events (supporting UN SDGs) co-hosted with students	15	12	25
	# Activities carried out to support UN SDGs	10	15	26
Office of Student Counselling Unit	# Initiatives with proven impact on UN SDGs and published on the AU website	3	8	9
Office of Student Housing	# Initiatives with proven impact on UN SDGs and published on the AU website	3	8	8
Office of Student Life	# Hosted community events in relevance to UN SDGs	13	20	31
Office of Community Engagement	# Initiatives with proven impact on UN SDGs	9	15	71

The KPI on "Efficiency of Utility Utilization" assigned to the Office of University Facilities, was achieved during the past academic years and showcased the AU's commitment to "SDG #13 Climate Action:



https://sustainablecampus.ajman.ac.ae/en/campus/energy-and-water-utilization-efficiency

Future Plans

Ajman University is committed to setting ambitious carbon reduction targets covering Scope 1, 2 and 3 emissions in alignment with the urgency to combat climate change. These targets vary in their specific emission reduction goals, timelines, and strategies. Still, they all aim to transition to a low-carbon economy and reduce dependence on fossil fuels.

The KPIs assigned to each Unit strengthened the AU's commitment to Sustainability, as this was one of the key Strategic Goals in the AU Strategic Plan 2022-2027 "Enhance Institution Sustainability".

https://www.ajman.ac.ae/en/about/strategic-plan-2022-2027

Current Low-Energy Use Projects

Ajman University is dedicated to fostering a sustainable future. Through its strong commitment to environmental stewardship, the university is at the forefront of creating a more sustainable world. As a leading educational institution, the university is committed to reducing its environmental impact and promoting energy efficiency. From implementing cutting-edge green technologies to promoting eco-friendly practices, Ajman University is setting a powerful example for other institutions to follow. The total energy used from low carbon sources in gigajoules for the year 2024 is 103.32 GJ/year.

Our ongoing projects demonstrate our dedication to creating a greener campus and building a better future for all. From solar panel installations to energy-efficient building upgrades, we are constantly seeking ways to minimize our carbon footprint. Our commitment to sustainability extends beyond our facilities, as we strive to inspire and educate our students, faculty, and staff on the importance of environmental conservation.

Ajman University is excited to announce two groundbreaking projects that align with our commitment to sustainability:

- Solar Hydroponic Net House: This innovative project combines solar energy with hydroponic farming to cultivate fresh produce year-round, reducing water consumption and minimizing the use of chemical fertilizers. By harnessing the power of the sun and using advanced hydroponic techniques, we will be able to grow a wide variety of fruits and vegetables in a highly sustainable way. This project will not only provide a local source of fresh produce, but will also serve as an educational tool to demonstrate the potential of sustainable agriculture.
- Sustainability Hub: A dedicated center for research, education, and community engagement focused on promoting sustainable practices. The hub will host workshops, seminars, and exhibitions to raise awareness about environmental issues and inspire action. The Sustainability Hub will be a vibrant gathering place where people can come together to learn, share ideas, and get involved in making a positive impact on the environment. From hands-on workshops to thought-provoking exhibitions, the hub will be a catalyst for sustainability in our community.

By integrating sustainability into our curriculum and promoting research in green technologies, we are cultivating the next generation of leaders who will shape a more sustainable future. Our students are not just learning about sustainability – they are actively contributing to it through hands-on projects and initiatives that make a real difference. At Ajman University, we believe that everyone has a role to play in protecting our planet, and we are dedicated to empowering our community to be a force for positive change.

As we continue to grow and evolve, our commitment to sustainability will remain at the heart of everything we do. We are proud to be a leader in sustainable education and will keep striving to set new standards for environmental responsibility. Together, we can create a greener, more sustainable future for all.

https://sustainablecampus.ajman.ac.ae/en/campus/solar-hydroponic-net-house

https://sustainablecampus.ajman.ac.ae/en/campus/solar-sustainability-hub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