Times Higher Education Sustainability Impact Ratings

University: Al-Mustaqbal University

Country: Iraq

SDG 7.2: University measures towards affordable and clean energy

7.2.6 Does your university as a body have a policy on divesting investments from carbon-intensive energy industries especially coal and oil?

Response: Yes

Al-Mustaqbal University has established a complete policy intended to divesting investments from carbon-intensive energy industries, particularly coal and oil.

Al-Mustaqbal University is dedicated to ethical and sustainable investment, reflecting its core values of environmental care, social responsibility, and strong governance. This policy defines the principles and strategies the university will adopt to ensure its investments support a sustainable future.

Evidence: https://sustainability.uomus.edu.iq/Policies/details/11

This policy reflects our promise to sustainability, social responsibility, and the urgent need to address climate change. Here are the important aspects of our policy:

1. **Investment in Renewable Energy and Sustainable Solutions**

   Al-Mustaqbal University recognizes the critical role that educational institutions play in combating climate change. By divesting from fossil fuels, we are taking a proactive stance in promoting sustainability and supporting global efforts to limit greenhouse gas emissions. This commitment is embedded in our institutional mission and values.

- Our university will allocate 25% of its endowment to renewable energy projects by 2026, focusing on solar, wind, and geothermal energy installations on campus and in surrounding communities." This will be achieved by conducting feasibility studies for solar panel installations on rooftops and parking lots. However, the university have already finished several projects regarding installing solar panels and integrating them into the main building of the university.





2- Implementation of PV panels for lighting Al-Mustaqbal Center for Energy Research

The campus design reflects the integration of renewable energy sources, such as solar panels on rooftops and wind energy. These connections are future to add the needs to the building energy and reduce the reliance on conventional energy sources. This contributes to cost savings and aligns with the commitments of the university sustainability.



3- Initiation of Al-Mustaqbal Energy Research Center that offers invaluable opportunities to participate in hands-on research projects. Al-Mustaqbal Energy Research Center stands out as one of the innovative programs created by Al-Mustaqbal University. A comprehensive example on the green building implementations is the center. The center is completely managed by solar energy, insulated, daylight, and so on. A hundred of activities regarding scientific research, interdisciplinary collaboration, community engagement and about green building can be found on the website of the center. For more information about these activities, please visit:

https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/100234

https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/104967
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/99452
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/98630
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/98677
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/98673
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/97611
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/97201
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/97195
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/97199
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/105714

https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/105705
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/105654
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/105653
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/105632
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/105626
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/105561
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/105559
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/105556
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/105510
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/105421
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/104910
https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/104783

❖ **Carbon Neutrality Commitment**:

By 2030, Al-Mustaqabl University aims to achieve carbon neutrality across all campus operations, including transportation, heating, and electricity use. Currently the university have implemented energy efficiency upgrades in all campus buildings including using smart systems and smart appliance. In addtion, the university have a policy for encouragement all of the staff and student to adopt an electrical car inside the campus in order to reduce the carbon emission. This Transition is a critical for the university fleet to electric vehicles and enhance public transportation options for students and staff.

The table below shows real values of the smart appliance that controlled by the control and monitor system.

Appliance	**Total Number**	**Total number energy Efficient appliances**	**Percentage**
Lighting			
Indoor light bulbs: replacing Halogen light bulb with LED	11245	11142	98.9%
Heating and cooling			
Fan	610	595	97.5%
Air conditioners	940	920	97.8%
Fan ceiling	1107	1100	99.3%
Office equipment			
Computers	1250	1225	98%
		Average Percentage	98%

All of these appliance are low electricity consumptions which helped the university in using the solar system for electricity generation instead of the appliance that consumes larger power that is usually generated by the generators that use usual oil as a fuel.

❖ **Community Engagement and Education**:

Al-Mustaqbal University have launched a campus-wide sustainability education program to raise awareness and promote sustainable practices among students, faculty, and staff by developing workshops and courses focused on sustainability and environmental stewardship.

Several courses are included in the syllabus for some majors beside workshop and seminars for the students and community. The first training course on the concepts and fundamentals of renewable energy and climate change was conducted by Assistant Professor Dr. Azher Mohsen Abed, with the attendance of a large number of participants from various disciplines. During the course, Dr. Azher delivered a comprehensive lecture covering several key topics on renewable energy, including an introduction to renewable energy, its types, and its importance in achieving sustainable development. The lecture also highlighted the latest technologies used in this field and the challenges of implementing them in Iraq and the region.



Evidence Link:

https://uomus.edu.iq/UnitsAndDivisions/NewsDetails/105705

In addition, Al-Mustaqbal Center for Energy Research hosted a training course on “Installation and Operation of Solar-Powered Water Systems” for the employees of the Babylon Agriculture Department.









Furthermore, Al-Mustaqbal University introduced an event "The first day of the training course titled 'Concepts and Foundations of Renewable Energy.' In this event, the presenter explained an introduction to the various types of renewable energy, such as solar energy, wind energy, hydroelectric energy, and biomass energy. He also discussed the practical applications of these different types of renewable energy, explaining how they can be used in various fields such as electricity generation, heating, and other applications. Several government, local communities, and industries representatives were invited to share their ideas about this topic.

https://uomus.edu.iq/NewDep.aspx?depid=2&newid=27275

Additional gathering and workshop can be found below:

1. Workshop on the solar energy thermal system in Al-Mustaqbal center for energy research

   https://uomus.edu.iq/NewDep.aspx?depid=2&newid=61409

2. Workshop about Carbon footprint

   https://uomus.edu.iq/NewDep.aspx?depid=2&newid=84482

3. Workshop about Ozon and carbon emissions

https://uomus.edu.iq/NewDep.aspx?depid=2&newid=28859

4. Workshop on the Heat pump and its applications in energy efficiency and emissions reduction

   https://uomus.edu.iq/NewDep.aspx?depid=2&newid=61038

5. Seminar on technologies to improve energy efficiency and reduce emissions

   https://uomus.edu.iq/NewDep.aspx?depid=2&newid=61472

6. Seminar on the renewable energy to the schools

   https://uomus.edu.iq/NewDep.aspx?depid=2&newid=61477

7. SCIENTIFIC WORKSHOP ON METHODS OF CLEANING SOLAR CELLS

   https://uomus.edu.iq/NewDep.aspx?depid=2&newid=15505

8. A scientific trip to the Hillah Comprehensive Power Plant for students

   https://uomus.edu.iq/NewDep.aspx?depid=2&newid=63160

9. Seminar on steam power plant for clean environment

   https://uomus.edu.iq/NewDep.aspx?depid=2&newid=62803

10. SCIENTIFIC SEMINAR ON THE IMPORTANCE OF HYDROELECTRIC ENERGY

    https://uomus.edu.iq/NewDep.aspx?depid=2&newid=15977

11. Workshop on wind energy

    https://uomus.edu.iq/NewDep.aspx?depid=2&newid=60856

12. Workshop on geothermal energy

    https://uomus.edu.iq/NewDep.aspx?depid=2&newid=39669

13. Workshop on designing an air-cooling system for a hybrid vehicle: a promising technique in emission reduction

    https://uomus.edu.iq/NewDep.aspx?depid=2&newid=50574

14. TRAINING WORKSHOP ON MEASURING DEVICES FOR SOLAR ENERGY SYSTEMS

    https://uomus.edu.iq/NewDep.aspx?depid=2&newid=16048

5. Alignment with Global Initiatives and Standards

The divestment policy of Al-Mustaqbal University aligns with leading global initiatives, such as the Paris Agreement and the United Nations Sustainable Development Goals. By divesting from carbon-intensive industries, Al-Mustaqbal University contributes to international efforts to alleviate climate change and enhance sustainable development.

6. Research, Innovation, and Education

The university is committed to fostering research and educational programs focused on sustainability and renewable energy. This includes research grants, curriculum development, and outreach programs. These programs provide the require funding for the research that introduce a reliable solution to the climate change problems and emission, encourage students to be in contact with the objects related to the climate change problem, and promote awareness and educational system about clean energy and sustainability.

Some of the researches that published regarding supporting the transform to the renewable resources for energy are:

Paper Title	Journal / Source	URL / Link
Experimental analysis of exhaust energy recovery performance of an internal combustion engine using thermoelectric generators and fuel economy evaluation	Energy (Elsevier, Vol. 332, 2025)	https://uomus.edu.iq/ScopusResearch/PublicResearchesEn/2110
Sinusoidal control methodology for rehabilitation arm exoskeleton due to system parameters dispersions	ResearchGate Publication (2025)	https://www.researchgate.net/profile/Salwan-Khafaji
Optimizing the electrical current and fluid-film thickness to control a Magneto-Rheological (MR) fluid brake using an analytical approach	MOHESR Iraq Research Management Portal (2025)	https://rms.mohesr.gov.iq/publications/cbcaf7fb-97a4-4199-b056-92cc93a76793
Enhancing Fe2O3/Bi2O3 performance for antibiotic photodegradation by combining with waste tire-derived activated carbon and visible-light-induced activation of peroxydisulfate	Journal of Water Process Engineering (2025)	https://www.researchgate.net/profile/Salwan-Khafaji
Optimal design of a dynamic vibration absorber based on the modified camel algorithm and physical concepts	Mechanical Engineering Publications / ResearchGate (2025)	https://www.researchgate.net/profile/Salwan-Khafaji

A Scoping Review of the Thermoelectric Generator Systems Designs (Heat Exchangers and Coolers) with Locations of Application to Recover Energy from Internal Combustion Engines	Journal of Applied and Computational Mechanics (2025)	https://www.researchgate.net/profile/Salwan-Khafaji

Paper Title	Journal / Source	URL / Link
Exergy-Aware Design, Deep Learning PINN-Driven Multi-Objective Optimization of Sustainable Energy Systems	ResearchGate Scientific Contributions (2025)	https://www.researchgate.net/scientific-contributions/Azher-M-Abed-2229275695
Heat transfer enhancement inside a constant temperature pipe via clockwise and counter-clockwise twisted triangle turbulators	Case Studies in Thermal Engineering / Elsevier (2025)	https://uomus.edu.iq/Profiles/IndexEn/713

Paper Title	Journal / Source	URL / Link
Design and Performance Evaluation of a Novel Multigeneration System for Simultaneous Electricity and Green Hydrogen Production	Energy Conversion and Management / ScienceDirect (2025)	https://uomus.edu.iq/DepartmentEn/Details/104907
Multi-objective optimization and exergy assessment of geothermal combined heat and power systems using regression-based machine learning methods	Energy / ScienceDirect (2025)	https://www.sciencedirect.com/science/article/abs/pii/S0360544224033723
Performance optimization of eco-friendly photocatalysts for wastewater treatment and hydrogen energy conversion	Journal of Cleaner Production / ScienceDirect (2025)	https://uomus.edu.iq/UnitsAndDivisionsEn/News/67?newsCategory=News&page=27
Optimal pressure ratio parameters for maximizing thermal capacity in heat recovery pump loops	Results in Engineering / ScienceDirect (2025)	https://www.sciencedirect.com/science/article/pii/S2214157X24013741

And some of the previous and continuous projects:

1. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85209642043&doi=10.1016%2fj.csite.2024.105514&partnerID=40&md5=4a58088384b376a910c730ecf5eda0d7

2. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85209580294&doi=10.1016%2fj.energy.2024.133850&partnerID=40&md5=deb7c2222ce502c49af42247f55cae07

3. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85206991419&doi=10.1016%2fj.energy.2024.133482&partnerID=40&md5=fe9c2d5e0265b113028a7279d1ad6ad2

4. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85209239149&doi=10.1016%2fj.csite.2024.105492&partnerID=40&md5=44511e82d6147389eda4655d3d32859f

5. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85203865832&doi=10.1016%2fj.energy.2024.133043&partnerID=40&md5=b25caf7a8743f6d1702e6cc0846bdff5

6. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85201380579&doi=10.1016%2fj.energy.2024.132593&partnerID=40&md5=30682e31620ebb08153b73f5ecd71f98

7. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85203024196&doi=10.1016%2fj.psep.2024.08.047&partnerID=40&md5=a94cb72dfa8560af5502dc02ce4cdc3f

8. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85205684162&doi=10.1016%2fj.csite.2024.105210&partnerID=40&md5=4b0f12032781b17737b980883aaa0625

9. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85205006494&doi=10.1016%2fj.est.2024.113871&partnerID=40&md5=537583c845e9271e356f095325b5b932

10. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85201490998&doi=10.1016%2fj.energy.2024.132703&partnerID=40&md5=30e022a1698ded91f0bce2127404a195

11. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85205498067&doi=10.1016%2fj.csite.2024.105228&partnerID=40&md5=e9b4527f7273be6b68aee3635b58d3f4

12. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85199110454&doi=10.1016%2fj.envres.2024.119526&partnerID=40&md5=f8e2c4b5a73192cc7ae80d6b15fb2c18

13. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85205542654&doi=10.1016%2fj.est.2024.113966&partnerID=40&md5=020f44e53a3ddd0fbb0618a029dace73

14. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85207804715&doi=10.1016%2fj.csite.2024.105343&partnerID=40&md5=3c329e1f76a19c329d9769549ce41008

15. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85199271754&doi=10.1016%2fj.psep.2024.07.062&partnerID=40&md5=4b394ffb757c79af3bfa23992ebdddc2

16. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85200816067&doi=10.1016%2fj.psep.2024.07.068&partnerID=40&md5=fba108d478113989c5146533a32a9424

17. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85193900146&doi=10.1016%2fj.desal.2024.117756&partnerID=40&md5=b3e0b6065ff1b24a0127a6571a66affd

18. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85203245427&doi=10.1016%2fj.rineng.2024.102823&partnerID=40&md5=6885ecb0d422129b40f8c1e3228911c4

19. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85201201158&doi=10.1016%2fj.renene.2024.121119&partnerID=40&md5=57d2e1ff1c290927b4c205df28908b2e

20. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85202290341&doi=10.1016%2fj.csite.2024.105028&partnerID=40&md5=cf34b4daf6edd8db18ee04b5da6db2bc

21. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85193904323&doi=10.1016%2fj.csite.2024.104585&partnerID=40&md5=1d6279c45137561d6bf2f5ee03003d15

22. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85194490319&doi=10.1016%2fj.psep.2024.05.110&partnerID=40&md5=64bf3be3384f8b32e3b5874aadfbeafd

23. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85193068082&doi=10.1016%2fj.csite.2024.104538&partnerID=40&md5=4bc1e7e0e7b21325c6423060ba36750a

24. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85194035332&doi=10.1016%2fj.csite.2024.104555&partnerID=40&md5=3bb990a6e230c70e2f8790ab56451d87

25. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85193001750&doi=10.1016%2fj.csite.2024.104485&partnerID=40&md5=59314ec45b1b1f83ec09fdf1b5cd95d1

26. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85192177563&doi=10.1016%2fj.psep.2024.04.116&partnerID=40&md5=55281208a7ade643001e2f98eaee6f80

27. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85193245839&doi=10.1016%2fj.csite.2024.104511&partnerID=40&md5=ec4015e8f63b3dab6223af95b7bca583

28. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85192749248&doi=10.1016%2fj.psep.2024.04.118&partnerID=40&md5=e209a68ace58d0b4b3510a644f52edad

29. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85194151524&doi=10.1016%2fj.csite.2024.104597&partnerID=40&md5=6b8949468837e8abc8888376e6efead0

30. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85192106324&doi=10.1016%2fj.est.2024.111880&partnerID=40&md5=52a1dc9c0cf7b3de528fe8f5a8e4acb2

31. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85193599897&doi=10.1016%2fj.heliyon.2024.e31244&partnerID=40&md5=19ee6c277325b6582e746f89376e51a0

32. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85193205887&doi=10.1063%2f5.0203755&partnerID=40&md5=03541944 5f4bdc39d75102550d5f06df

33. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85189077725&doi=10.1016%2fj.csite.2024.104298&partnerID=40&md5=5ded569ea90054873c6aa0dbab22a2ff

34. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85186955205&doi=10.1016%2fj.est.2024.111104&partnerID=40&md5=49714b81716302b7bb286cb9dea4e40c

35. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85189368424&doi=10.1016%2fj.csite.2024.104319&partnerID=40&md5=9ba82b8b985034c73266177e6252131a

Objectives of The Plan prepared by Al-Mustaqbal University

1. Organization of training of academic staffs and experts in the field of energy and buildings construction for bettering utilization of sustainable energy in buildings.
2. Encouragement of scientific research and progress in the field of energy and buildings.
3. Support the construction of the sustainable buildings through consultants
4. Promotion of innovative funding of energy efficiency, transition, and consumption projects
5. Using energy efficient of equipment, processes, systems, and devices such as LED lighting, renewable energy, solar powered air conditioning

Ongoing Policy

1. This policy governs all of the construction of the buildings activates of Al-Mustaqbal University.
2. 50 million kg carbon dioxide of carbon emission reduction per year in Al-Mustaqbal University by 2030.
3. 80% renewable energy usage by 2030
4. Promoting and creation awareness of energy conservation and management among students and staff with continual improvement for climate change and sustainability.
5. The new buildings is planned, constructed and implemented considering the applicable building code regulations, fire code regulations, ADA guidelines, OSU best practices, and zoning code regulations.
6. All campus space is managed, renovated in accordance with the policies and procedures of the appropriate committees in the campus such as the Campus Planning Committee, University Space Committee, University Safety Committee, etc.
7. Appropriate experts and professionals are licensed to design the sustainable buildings.
8. Avoiding establishing cooperation with carbon intensive bodies dependent on fossil fuel.