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## SDG 7: AFFORDABLE AND CLEAN ENERGY

Khalifa University of Science and Technology advances SDG 7: Affordable and Clean Energy by leading research and innovation in renewable energy, energy systems, and decarbonization, while continuously improving energy efficiency across campus operations. KU plays a strategic role in supporting the UAE's clean energy transition and Net Zero 2050 ambition.

### Key Contributions in 2025

#### 1. Clean Energy Research and Innovation

In 2025, Khalifa University continued to advance high-impact research in solar energy, hydrogen technologies, energy storage, power systems, and grid optimization. These research activities support the development of reliable, scalable, and affordable clean energy solutions.

#### 2. Energy Efficiency and Smart Campus Operations

KU implemented energy efficiency measures across campus, including HVAC optimization, LED lighting upgrades, building automation systems, and data-driven energy monitoring. These initiatives contribute to reduced energy intensity and improved operational performance.

#### 3. Renewable Energy Integration

The University expanded the integration of renewable energy technologies and explored low-carbon energy solutions within campus operations, supporting emissions reduction and energy resilience.

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#### 4. Education and Talent Development

Through academic programs, graduate research, and applied learning, KU develops expertise in clean energy and power systems. Students actively participate in research projects addressing real-world energy challenges.

#### 5. Partnerships Supporting Energy Transition

In 2025, Khalifa University strengthened partnerships with government entities, industry leaders, and international research institutions to advance clean energy deployment, policy support, and technology transfer.

#### Useful links:

- [Environment Sustainable policy](#)
- [Sustainability plan](#)
- [Local community outreach for energy efficiency](#)
- [Assistance to low carbon innovation](#)

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# SDG 7: AFFORDABLE AND CLEAN ENERGY

## Energy Research

In 2025, Khalifa University continued to strengthen its contribution to SDG 7 through a portfolio of research projects focused on clean and renewable energy, power systems optimization and managed energy transition.

These projects span advanced power systems modelling, hydrogen and CO<sub>2</sub> utilization, and integrated renewable energy solutions, supporting a more efficient and reliable energy mix for the UAE and beyond.

61

Active Awarded Research  
Projects in 2025

29 M

Projects' Research  
Budget (AED) in 2025

### Main research themes:

Clean and  
Renewable Energy

Energy: Fuels and  
Energy: Power

Managed Energy  
Transition

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## SDG 7 Research Publications in 2025

### Energy Research Publications Summary

In 2025, Khalifa University demonstrated strong and sustained research output aligned with SDG 7: Affordable and Clean Energy, producing **442 publications** mapped to this goal (as of 16 January 2026, Scopus data).

Between 2022 and 2025, KU's SDG 7 publication output grew at an average **annual rate of approximately 19%**, reflecting sustained expansion and consolidation of research activity in clean and sustainable energy.

The 2025 SDG 7 publications achieved a **Field-Weighted Citation Impact (FWCI) of 2.32**, indicating citation rates more than twice the global average.

In addition, **74.9%** of these publications involved **international co-authorship**, underscoring the strength of KU's global research collaboration network.

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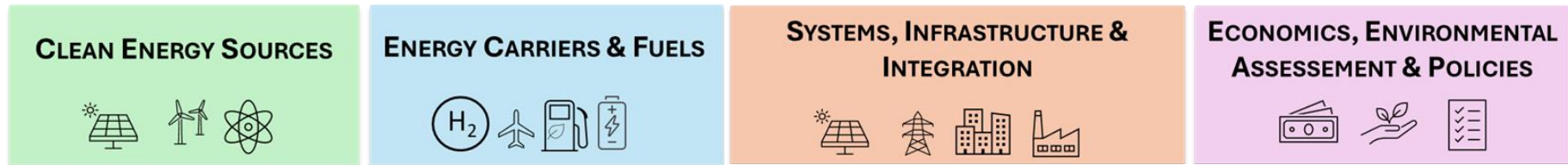
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# SDG 7: AFFORDABLE AND CLEAN ENERGY

## Energy Research

Research at KU covers the whole value change of energy production, transmission and utilization, including their environmental impact

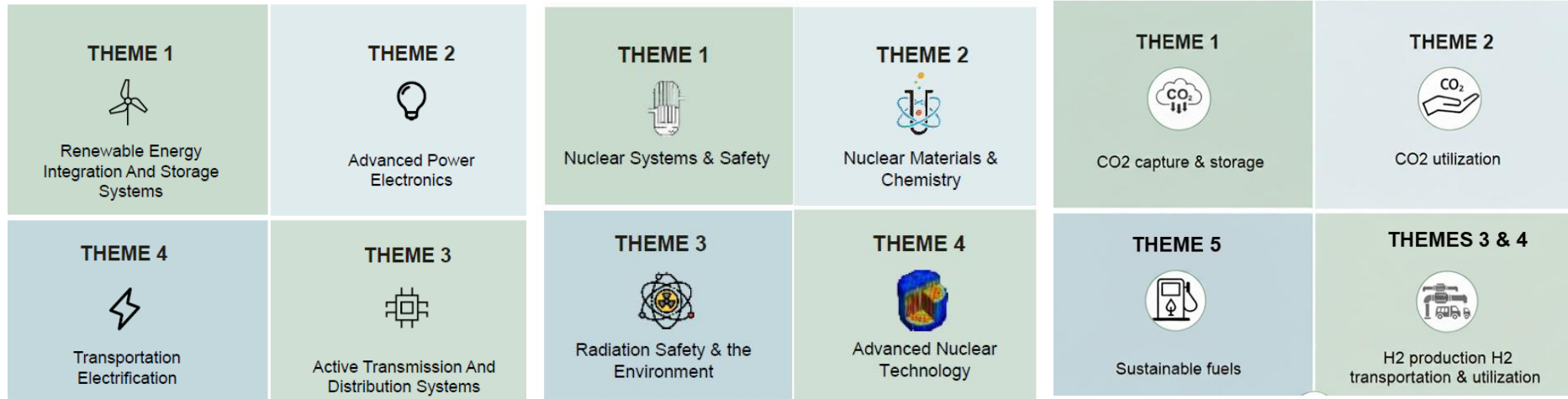


Research and Innovation Centers and areas of focus within the Energy sector at Khalifa University

Advanced Power Energy Center (APEC)

Emirates Nuclear Technology Center (ENTC)

Research and Innovation Center on CO2 and Hydrogen (RICH)



Research. Innovation, Commercialization in the energy sector

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## SDG 7: AFFORDABLE AND CLEAN ENERGY

- Energy partnerships/ Technology transfer
- Supply & Installation of VPNR system
- Supply and Installation of LED Strip Lights for Link Bridge in Main Campus (between E & G building 1st floor)

### Strategic partners in energy with active projects



### Support to the UAE government



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# SDG 7: AFFORDABLE AND CLEAN ENERGY

Students' engagement:

Debate: "CO<sub>2</sub> Capture vs. Hydrogen: The Best Path to a Net-Zero Future?" (YFEL program).





Dear YFEL Members,

We are excited to invite you to our Fifth technical session, hosted by the Chemical & Petroleum Engineering Department under the Research and Innovation Center on CO<sub>2</sub> and Hydrogen (RICH).

**Debate Title:** CO<sub>2</sub> Capture vs. Hydrogen: The Best Path to a Net-Zero Future?

**Main Objective of the Debate**

The primary goal of this debate is to explore cutting-edge research and technological advancements in CO<sub>2</sub> capture, utilization, and storage (CCUS) and hydrogen production for climate mitigation and adaptation.

Field	Details
Instructor(s)	Dr. Seba Zakaria Al Areeqi Dr. Priyanka Kumari and Eng. Sarah Waleed Hamdan
Date	25 <sup>th</sup> of June - 25
Time	4:30 PM - 6:00 PM
Location	KIC
Workshop Format	Hybrid • UAE Based Students - In Person • International Students - Virtual
Judges	Dr. Maryam Khaleel Dr. Khalid AlAli Dr. Ahmad Mayyees




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