

AFFORDABLE AND CLEAN ENERGY REPORT 2025



ISTANBUL GELISIM UNIVERSITY



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AFFORDABLE AND CLEAN ENERGY REPORT 2025
SDG 7: AFFORDABLE AND CLEAN ENERGY
“IGU for Ecological, Social and Economic Sustainability”

SDG 7: AFFORDABLE AND CLEAN ENERGY

Energy is one of the fundamental areas that brings together the economic, environmental, and social dimensions of sustainable development. While ensuring access to reliable and modern energy services is essential for sustaining economic activities and improving quality of life, reducing the environmental impacts of energy production and consumption is also a key component of the sustainability agenda. Sustainable Development Goal 7 (SDG 7), one of the United Nations Sustainable Development Goals (SDGs), addresses these requirements through a holistic approach and aims to ensure access to affordable, reliable, sustainable, and modern energy for all. In line with the targets of SDG 7, transforming energy systems towards greater sustainability is closely associated with increasing the use of renewable energy sources, improving energy efficiency, and strengthening energy infrastructure. This transformation also contributes to the more efficient use of energy resources, the reduction of environmental pressures, and the promotion of sustainable production and consumption patterns.

IGU’s activities within the scope of SDG 7 encompass complementary areas including energy efficiency, renewable energy, reduction of environmental impacts, raising awareness of energy-related issues, and supporting sustainable energy solutions. These activities not only contribute to improving the University's own energy-use practices but also help raise awareness of sustainable energy among students, academic and administrative staff, and other stakeholders. Accordingly, SDG 7 is addressed at IGU not merely as a technical objective related to energy use, but as a broader sustainability area interconnected with environmental responsibility, the efficient use of economic resources, knowledge generation, and social awareness. The University's academic and institutional activities in the field of energy enable the ecological, social, and economic dimensions of sustainability to be considered together and facilitate the establishment of a comprehensive sustainability model within the institution.



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IGU INSTITUTIONAL PROFILE

IGU VISION

Istanbul Gelisim University (IGU) is an Istanbul-based foundation university established in 2008 and granted university status in 2011. Recognizing education, research, and community service as its core missions, IGU aims to educate individuals who adhere to scientific ethics, possess sustainability awareness, and are competent at the international level.

As of 2025, the University provides education to 39,081 students and operates with 7 faculties, 1 institute, 1 school, and 2 vocational schools. It has a strong educational and research infrastructure comprising 22 research centers and 152 laboratories and workshops.

IGU's core values include respect for individual differences, openness and transparency, sustainability, interdisciplinary research, collaboration with the real sector, and a commitment to continuous improvement. With a governance model focused on quality management and stakeholder engagement, the University has successfully completed the institutional evaluation and accreditation processes conducted by the Council of Higher Education Quality Board (YÖKAK).

IGU Institutional Capacity

- Year of Establishment: 2008 (Vocational School), 2011 (University status)
- Number of Faculties: 7
- Number of Institutes: 1
- Number of Schools: 1
- Number of Vocational Schools: 2
- Number of Research Centers: 22
- Number of Laboratories and Workshops: 152
- Total Number of Students (2025): 39,081
- Total FTE (Full Time Equivalent) Number of Students (2025): 22,135
- Campus Location: Avcılar, Istanbul, Türkiye
- Library Facilities: 1 main library and 4 branch libraries
- Strategic Plan Period: [2024–2028](#)



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Acknowledgements

We would like to express our sincere gratitude to the esteemed academics, administrative unit coordinators, staff members, students, graduates, and internal and external stakeholders of Istanbul Gelisim University (IGU) who contributed to the preparation of this report.

We would also like to extend our special thanks to all members of the University and its stakeholders who have embraced all existing sustainability-related goals and undertaken efforts in this direction, as well as to the University Board of Trustees and the Rectorate for their continuous support of these efforts.

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7.1. Research on Clean Energy

7.1.1. Scopus Publications on IGU Affordable and Clean Energy

The number of scientific publications by Istanbul Gelisim University (IGU) in the field of SDG 7, as categorized in Scopus under the Sustainable Development Goals (SDGs), covering affordable and clean energy, energy systems, and energy efficiency, was 55 in 2021, 55 in 2022, 53 in 2023, 42 in 2024, and 32 in 2025.

In 2025, SDG 7 accounted for 8.7% of the scientific publications produced and published by IGU and categorized according to the 17 Sustainable Development Goals.

The figure below presents the number of scientific publications indexed in Scopus over the last five years.

For access to all publications indexed in Scopus [click here](#).

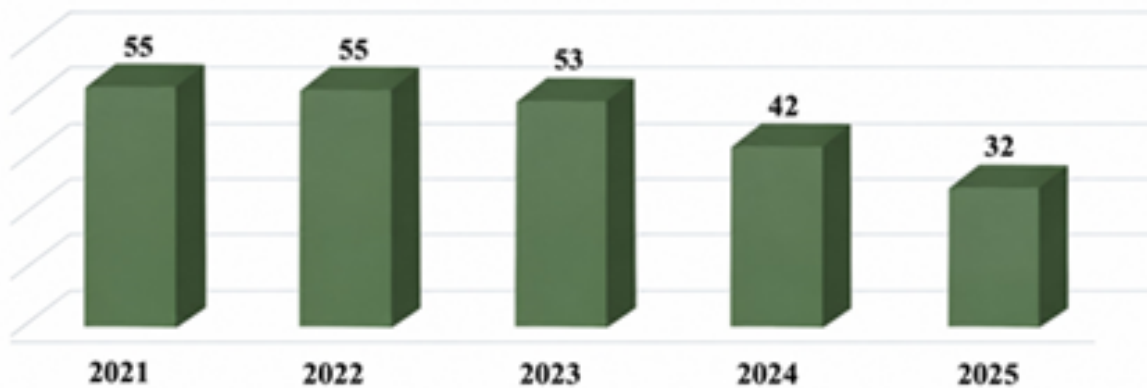


Figure 1. Number of Scientific Publications on SDG 7 by Years (Scopus)



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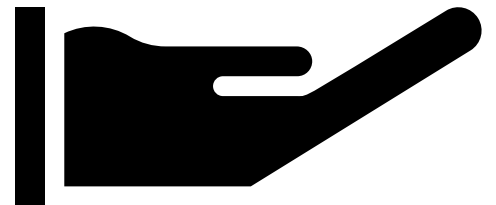
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7.1.2. IGU Courses on Affordable and Clean Energy

During the 2025–2026 academic year, various sustainability-oriented courses related to affordable and clean energy are offered at IGU. Through these courses, listed in the table below, students are provided with opportunities to develop in-depth knowledge and competencies in areas such as renewable energy sources, energy efficiency, energy conversion technologies, energy economics, and sustainable development. Offered at associate, undergraduate, and graduate levels, these courses provide students with an interdisciplinary learning environment by integrating technical, economic, and environmental perspectives.

New programs were launched within the Vocational School in the Fall Semester of the 2025–2026 academic year. These programs include [Electricity Energy Generation, Transmission and Distribution](#), [Carbon Management Technician](#), [Digital Conversion Electronics](#), and [Autonomous Systems Technician](#).

In addition, with the aim of introducing the University's sustainability vision to all students, the course [Introduction to Sustainability](#) is included in the compulsory course pool of some faculties and schools and in the elective course pool of others. Through this course, students become familiar with the global Sustainable Development Goals and develop the ability to approach the relationship between energy, the environment, and society from a holistic perspective.



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Table 1. Courses Offered within the Scope of Affordable and Clean Energy

Institute of Graduate Studies	Faculty of Engineering and Architecture	Faculty of Economics, Administrative and Social Sciences
Mechatronics Engineering (MSc) - New and Renewable Energy Systems - Fundamentals of Solar Cells - Energy Economics and Management in Thermal Systems - Advanced Power Electronics - DC-DC Converters and Analysis Electrical and Electronics Engineering (MSc) - New and Renewable Energy Systems - Solar Panel Applications - Power System Operation with Renewable Energy Integration - Energy Management - Design and Optimization of Electrical Power Systems - Fault Analysis in Energy Systems	Mechatronics Engineering - Renewable Energy Systems - Electromechanical Energy Conversion Systems Electrical and Electronics Engineering - Renewable Energy Systems - Electromechanical Energy - Energy Distribution Systems - Power Electronics - Electric Machinery	Economics and Finance - Energy Economics and Sustainability International Trade and Finance - Energy Economics and Sustainability International Trade and Business - International Energy Policies
IGU Vocational School		
Generation, Transmission and Distribution of Electrical Energy (1/2) - Electrical Energy Generation Plants - Electrical Energy Transmission - Electrical Energy Distribution Systems - Green Energy Transition and Sustainable Resources - Green Building and Energy Efficiency - Digital Winding and Quality Control Techniques for Efficient Electrical Machines	Generation, Transmission and Distribution of Electrical Energy (2/2) - Efficient Electrical Machines, Digital Testing and Predictive Maintenance - Efficient Electrical Machines, Drive Systems and Digital Maintenance - High Voltage, Insulation and Risk Management in Smart Grids - Battery Technologies and Microgrid Storage Solutions - Next-Generation Energy Generation and Grid Integration - Sustainable Lighting Design and Photometric Analytics Electronics Technology - Energy Economics in Industry	Smart Infrastructure Technician - Smart Energy Distribution Systems - Electrical Power Plants - Electric Machinery Digital Conversion Electronics - Green Energy Transition and Sustainable Resources - Next-Generation Energy Generation and Grid Integration - Efficient Electrical Machines and Digital Testing - Predictive Maintenance, Smart Fault Diagnosis and Energy Systems Reliability Autonomous Systems Technician - Battery Technologies and Microgrid Storage Solutions - Efficient Electrical Machines, Digital Testing and Predictive Maintenance - Green Technologies in Autonomous Vehicles Department of Car Body and Surface Finishing Technologies Renewable Energy Sources Technology of Hybrid and Electric Vehicles - Energy Storage Systems



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7.1.3. IGU Laboratories on Affordable and Clean Energy

IGU has a total of 152 laboratories and workshops supporting research, education and practical activities; 7 of them are directly relevant to SDG 7 and are listed below. These laboratories have been established to support the development of sustainable energy systems, the modeling of energy efficiency applications, and the analysis of environmentally friendly technologies, while providing students with a practical and experience-based learning environment. Seven laboratories directly relevant to SDG 7 are listed below.

This infrastructure has been designed to facilitate interdisciplinary studies and is actively used by undergraduate and graduate students and researchers from various fields, including engineering, architecture, environmental sciences, and energy systems. Through these facilities, students have the opportunity to relate their theoretical knowledge to real-world problems and gain practical experience in areas such as the design of renewable energy systems, energy efficiency analysis, sustainable building technologies, and environmental impact assessment. These laboratory environments also provide the necessary infrastructure for energy-focused graduation projects, TÜBİTAK-supported research, and applied studies aimed at contributing to society.

[For all laboratories at IGU, please click here.](#) 

1. Renewable Energy Laboratory – Electronic Machinery and Power Equipment Laboratory
2. Electrical-Electronics Laboratory
3. Electromechanical Systems Laboratory
4. Electrical Laboratory
5. Electrical and Electronics Engineering Student Workshop
6. Nanotechnology Laboratory (currently being established)
7. Hydraulic and Geotechnical Laboratory



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Renewable Energy Laboratory – Electronic Machinery and Power Equipment Laboratory.



Hydraulic and Geotechnical Laboratory.



Electrical-Electronics Laboratory.



Electromechanical Systems Laboratory.



Electrical and Electronics Engineering Student Workshop.



Nanotechnology Laboratory.



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7.2. University Measures towards Affordable and Clean Energy

IGU develops various strategies to support the use of clean and affordable energy in line with the Sustainable Development Goals. The University's energy policies aim both to increase energy efficiency across campus infrastructure and to promote awareness of clean energy at academic and societal levels.

7.2.1. Energy-Efficient Renovation and Building

In line with its 2024–2028 Strategic Plan, IGU adopts energy efficiency as a priority principle in all construction and renovation activities with the aim of achieving energy savings, reducing carbon emissions, and ensuring environmental sustainability. This approach is explicitly defined not only in practice but also in the University's updated policy documents.

The University's [Sustainability Training Policy](#), [Environment Policy](#), [Sustainable Procurement and Supplier Policy](#), [Policy for Waste Management and Reducing Environmentally Hazardous Products](#), [Water Management Policy](#), [Research and Development Policies](#), and [Policy of Sustainability Research](#) identify energy efficiency, the use of environmentally friendly technologies, and the transition to renewable energy as strategic objectives. In addition, the [Additional Policies](#) include the “Renovation and Sustainable Resources Policy” and the “Carbon Emissions and Nature Conservation Policy.” These policies directly contribute to supporting sustainable building infrastructure, prioritizing energy-saving equipment choices, and reducing resource consumption across the campus.

One of the key objectives defined within IGU's [Sustainability Training Policy](#) is to support industries in the areas of sustainable infrastructure, sustainable technology, and energy efficiency. In this regard, the University aims to support industries in implementing sustainable infrastructure transformation in line with responsible production principles, reducing their ecological footprints by developing sustainable energy and waste policies, and contributing to society by designing corporate social responsibility projects in line with their defined objectives. To this end, interactive and student-centered sustainability education programs are being developed.



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Within the framework of the [Environmental Policy](#), IGU carries out activities in cooperation with local industrial organizations with the objectives of reducing and preventing waste, implementing investments that improve environmental performance, and conducting activities aimed at reducing the environmental footprint.

Under the [Sustainable Procurement and Supplier Policy](#), the University ensures the procurement of environmentally friendly goods and services through comprehensive, effective, and sustainable supplier cooperation.

Under the [Policy for Waste Management and Reducing Environmentally Hazardous Products](#), IGU aims to reduce natural resource consumption and establish an effective waste management system by reducing waste generation and ensuring the reuse, recycling, and recovery of waste. For waste requiring disposal and environmentally harmful products, these processes are carried out in cooperation with local industry. In this context, official agreements such as the “Medical Waste Agreement,” “Non-Hazardous Waste Agreement,” and “Dental Hospital Medical Waste Agreement” are in place.

Under the [Water Management Policy](#), IGU takes responsibility for and supports activities, programs, and projects related to issues such as conducting regular economic analyses of water use and increasing awareness of water-related issues. In this context, cooperation is established with all local and global stakeholders.

Under the [Policy of Sustainability Research](#), IGU focuses on sustainability, particularly in social, economic, and environmental contexts, and encourages its researchers to design and conduct their research within this framework. IGU also supports its researchers in establishing national and international collaborations.

IGU's [Research and Development Policies](#) envisages setting annual research and publication targets for each academic staff member, department, and faculty in priority areas focused on sustainability. It also provides for the diversification of support for these targets through mechanisms such as IGUBAPMER and TTO, using institutional, national, and international resources.



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Within the scope of the [Additional Policies](#), the “Renovation and Sustainable Resources Policy” adopts the efficient use of resources as a fundamental principle. While renovation works on campuses are carried out in accordance with the original characteristics of the buildings, attention is paid to the sustainable use of resources. In this context, projects and initiatives aimed at society are implemented together with stakeholders with an awareness of social responsibility. Through the “Carbon Emissions and Nature Conservation Policy,” the University has established raising public awareness about the protection of nature and environmental sustainability and achieving transformation within the University itself as fundamental principles. The University aims to meet its own energy needs through initiatives involving renewable energy sources and also supports projects that raise public awareness and contribute to society.



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7.2.2. Upgrade Buildings to Higher Energy Efficiency

Within the scope of its 2024–2028 Strategic Plan, IGU has established concrete targets to improve the energy efficiency of its existing buildings in order to achieve energy savings and reduce carbon emissions that harm the environment.

These targets include the development of research and application centers, workshops, and laboratories within the University and the support of sustainable practices, in line with SH.2.3, “Participating in the entrepreneurial and innovative university ecosystem,” under SA.2, “Increasing the culture and competence of scientific and technological research within the framework of national and international standards.”

These efforts are supported by the strategic sub-objectives shaped under SA.3, “Making multidimensional social benefit more effective by placing sustainability at the center,” and SA.2. In particular, systematic investments and practices aimed at improving building energy performance across all campuses of the University are being implemented in line with SH.3.2, “Increasing the effectiveness of the sustainable environmental management system”. Accordingly, new buildings and renovation works are carried out through energy-saving practices such as insulation, natural lighting, automation systems, and LED conversion. The LED usage rate increased from 78.49% in 2023 to 90.08% in 2024 and reached **92.35% in 2025**.

Table 2. Changes in the Total Number of Lighting Fixtures and LED Lighting Fixtures by Years

Years	Total Lighting/ LED Lighting	LED Lighting Rate
2025	19,825/ 18,309	92.35%
2024	19,350 / 17,430	90.08%
2023	19,280 / 15,132	78.49%
2022	19,460 / 9,048	46.50%
2021	19,542 / 8,794	45%
2020	19,153 / 7,769	40.56%
2019	18,153 / 6,669	36.74%
2018	17,337 / 5,548	32%



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- **Building insulation and energy efficiency:** External thermal insulation works have been carried out to improve the thermal performance of university buildings. These measures have contributed to reducing heat loss, particularly during the winter months, and lowering natural gas consumption.
- **Smart lighting systems:** Lighting systems equipped with daylight sensors have been implemented at the Tower Campus. These systems optimize the need for artificial lighting according to natural daylight conditions and help prevent unnecessary energy consumption outside working hours.
- **Heating, cooling, and energy management:** At the Tower Campus, regular maintenance, monitoring, and improvement works are carried out on mechanical automation systems used for indoor climate control and energy management. Hardware components are upgraded when necessary to improve system efficiency, thereby supporting the reduction of energy consumption associated with heating and cooling processes. In this context, the existing chiller system was replaced in 2025 with a more technologically advanced and energy-efficient unit. This upgrade was undertaken to improve the energy efficiency of the campus cooling infrastructure and support its transition towards a more sustainable system.
- **Generator systems and fuel efficiency:** Regular maintenance and inspection protocols are implemented for generator systems to support their efficient operation. These practices contribute to reducing fuel consumption and the associated carbon emissions.
- **Rainwater Harvesting Project:** IGU develops practices for rainwater recovery in order to protect natural resources and reduce indirect energy consumption resulting from water usage. In this context, the reuse of rainwater contributes to reducing mains water consumption, while also supporting the reduction of the energy required for water treatment, transport, and pumping. The practice is currently ongoing at the Tower Campus and Block E.
- **Energy-Efficient Air Conditioning Equipment:** There are a total of 370 air conditioning units within the body of IGU. 355 of these devices consist of new generation, environmentally friendly models with high energy efficiency, while 15 consist of older models with higher energy consumption. In 2025, the university replaced 3 of the 15 existing old-type air conditioners with inverter devices. With the completion of this transition, it is aimed to further enhance energy efficiency in the university's air conditioning infrastructure and reduce the environmental impacts originating from energy consumption.



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IGU adopts the integration of renewable energy sources into its procurement framework as a core institutional priority, aiming to embed clean, sustainable energy into both campus life and academic-administrative operations. To formalize this goal, the university holds both YEK-G (Renewable Energy Guarantee of Origin) and I-REC (The International REC Standard) certifications. These credentials officially certify that the electrical power consumed across IGU campuses is sourced entirely from renewable origins. While the university's electricity demand was met via hydroelectric power plants beginning in 2021, 100% of its consumption has been supplied by solar energy since 2024. This transition not only significantly mitigates the institution's carbon footprint, but also demonstrates the structural integration of energy efficiency principles into its corporate infrastructure policy.

by
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10 000.000000
I-REC Certificates, representing 10 000.000000 MWh of
electricity generated from renewable sources
This Statement relates to electricity consumption located at or in
CİHANGİR MAHALLESİ ŞEHİT JANDARMA KOMANDO ER HAKAN ÖNER SOKAK NO:1
AVCILAR /İSTANBUL
Turkey
in respect of the reporting period
2025-01-01 to 2026-12-31
The stated Redemption Purpose is
Scope 2 Reporting



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7.2.3. Carbon Reduction and Emission Reduction Process

As part of its efforts to combat climate change, Istanbul Gelisim University (IGU) carries out comprehensive and systematic activities to reduce carbon emissions while fulfilling its environmental responsibilities. In this context, carbon emissions arising from the University's energy consumption are regularly monitored, and carbon footprint calculations are conducted in accordance with internationally recognized standards. Based on the measurement and assessment results, emission reduction targets and improvement strategies are developed.

While technical infrastructure improvements are implemented to enhance energy efficiency and reduce emissions arising from electricity, natural gas, and fuel consumption, various practices are also carried out to increase the environmental awareness of academic and administrative staff and students. Through this approach, İGÜ integrates carbon management and emission reduction processes into its sustainability policies and implements them through a measurable, monitorable, and continuously improvable framework.

The [2024–2028 Strategic Plan](#) sets out strategic objectives, strategic targets, and performance indicators in this area. The relevant objectives, targets, and indicators are as follows:

SA.3. Enhance multidimensional social benefit by placing sustainability at the center.

- SH.3.1. Increase the quality and quantity of social responsibility projects.
- SH.3.2. Enhance the effectiveness of the sustainable environmental management system.
- SH.3.3. Increase the level of cooperation with local and regional institutions and organizations.
- SH.3.4. Increase community service-oriented activities.

Relevant Indicators:

- Electricity consumption (kWh)
- Capacity of renewable energy sources (kWh)
- Investment in energy efficiency (USD)
- Total number of Zero-Emission Vehicles (ZEVs) divided by the total campus population



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The use of automation systems and LED lighting contributes indirectly to İGÜ's sustainability objectives by reducing energy consumption. Regular training and awareness-raising activities are organized for students and staff to increase awareness of carbon emissions and climate-related issues.

To reduce the University's carbon footprint, various measures are implemented to improve efficiency and promote resource conservation in water use, electricity consumption, heating, and transportation. In addition, environmentally responsible procurement practices are adopted, with preference given to energy-efficient, low-carbon-emission air-conditioning systems, equipment, and other products. Regular maintenance of all equipment and systems is carried out at predetermined intervals to ensure operational efficiency, extend the useful life of equipment, and prevent unnecessary energy consumption and resource waste.

IGU monitors the fuel types and operational characteristics of its vehicle fleet with the aim of reducing the environmental impacts of institutional transportation activities and developing more sustainable transportation practices. As of 2025, the university's vehicle fleet consists of 29 vehicles, including 17 gasoline-powered, 11 diesel-powered, and 1 electric vehicle. The inclusion of an electric vehicle in the university's fleet represents one of the steps taken toward transitioning to lower-emission vehicles in institutional transportation. IGU undertakes efforts to consider sustainability criteria such as fuel efficiency, emission reduction, and the minimization of environmental impacts when renewing its vehicle fleet and planning the use of existing vehicles.

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Projects aimed at rainwater reuse are being developed to foster water conservation and environmental awareness. One such initiative has already been implemented at the Tower and Block E campuses, with plans to expand it to other blocks as well. To further reduce these environmental impacts and ensure sustainability, the university plans to organize training programs to raise awareness regarding practices and factors that influence the carbon footprint.

According to the Impact Rankings 2026 results announced by Times Higher Education (THE), Istanbul Gelisim University (IGU) continued its progress in the field of sustainable development, adding another international achievement to its record. In the rankings prepared in line with the United Nations Sustainable Development Goals (SDGs), IGU moved up from the 601–800 band in the previous year to the 401–600 band, demonstrating its continued improvement in sustainability performance. Among foundation universities in Türkiye, IGU was also placed among the top three universities.

In the Affordable and Clean Energy (SDG 7) category, IGU ranked second. This achievement demonstrates the University's commitment to the sustainable use of natural resources and highlights its concrete contributions to carbon reduction processes at the national level.



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In this context, the measures and activities implemented are listed below:

1. The number of fluorescent lamps used across the University's campuses is being reduced progressively each year. These fluorescent lamps are being replaced with longer-lasting and more energy-efficient LED lighting systems. This transition is expected to improve overall energy efficiency by reducing energy consumption and maintenance costs while providing higher illumination levels with fewer lighting units. In line with this plan, 18,309 fluorescent lighting units were replaced with LED lighting in 2025 in areas where the replacement program was implemented. As of 2025, 18,309 of the university's 19,825 lighting fixtures had been converted to LED lighting. The number of LED fixtures increased by 879 compared with 2024, and the LED rate rose from 90.08% to 92.35%. The transition to energy-efficient LED lighting will continue in 2026, with the aim of further improving energy efficiency and reducing energy consumption across the University's campuses.

2. Regular maintenance and, where necessary, system renewal works are carried out on the mechanical automation systems at the University's Tower Campus to improve energy efficiency. In this context, in 2025, the existing chiller (cooling unit) systems with high energy consumption were replaced with new-generation equipment offering lower carbon emissions and higher energy efficiency. This improvement is expected to contribute to reducing energy consumption across the campus and, consequently, lowering the University's carbon footprint.

3. As part of its strategic energy policies aimed at reducing carbon emissions, IGU has adopted the use of renewable energy sources in its energy procurement as an institutional priority. Since 2021, 100% of the electricity used across the University has been supplied from renewable sources generated by hydropower plants, while, as of 2025, the University's entire electricity consumption has been supplied through solar energy.

This transition has been formally certified through the Renewable Energy Resource Guarantee System (YEK-G) and internationally recognized International Renewable Energy Certificate (I-REC) certificates. IGU's approach to incorporating renewable energy sources into its energy procurement process is also intended to minimize its environmental impacts. Through these practices, the University reduces carbon emissions associated with energy consumption while also contributing to the management of its indirect environmental impacts. IGU approaches this process not as a static practice but as a dynamic and continuously developing sustainability strategy. In this framework, the University aims to strengthen its emission reduction efforts through multidimensional interventions, including energy-efficiency investments, digital monitoring systems, green building practices, and the integration of low-carbon technologies.



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4. At the Tower Campus, lighting systems have been upgraded and equipped with daylight sensors, enabling automatic control and ensuring that lights are switched off automatically after working hours. These measures aim to prevent unnecessary electricity consumption and improve energy efficiency.

5. Policies promoting the use of renewable energy sources, particularly wind and solar energy, have been strengthened.

6. Work on the 4 MW Solar Power Plant (SPP) project is ongoing. The site has been identified, and the relevant official procedures have been initiated. The plant is planned to become operational in 2026. IGU aims to meet its own electricity consumption through electricity generated by its own renewable energy facility.

7. The use of various electrical appliances, such as tea and coffee machines, in individual staff offices contributes to overall energy consumption. To reduce energy use, efforts are ongoing to establish shared kitchen areas across the campuses. In this context, 19 shared kitchens have been established at the Tower Campus.

8. Annual tree-planting and afforestation activities continue regularly with the aim of reducing the University's carbon footprint.

9. The procurement specifications prepared for the acquisition of new equipment to be used across the campuses continue to be followed, with energy efficiency and energy-saving performance remaining among the primary selection criteria.

10. The maintenance of power factor correction panels used to prevent energy losses affecting total energy consumption is carried out regularly.

Accordingly, IGU not only works to reduce its current carbon emissions but also continues to develop its long-term carbon management strategies and emission reduction plans for the coming years.



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11. Throughout 2025, IGU effectively continued its used vegetable oil management activities in line with its environmental sustainability objectives.

12. In line with its environmental sustainability policies, IGU adopts a holistic approach to reducing carbon emissions that extends beyond energy consumption and incorporates waste management, recycling practices, and circular economy principles. Within this framework, hazardous and harmful waste generated primarily by gastronomy kitchens, laboratories, clinics, and technical units is managed in full compliance with environmental legislation. Such waste is properly controlled, segregated, temporarily stored under appropriate conditions, and disposed of through licensed waste management companies. All waste management processes are carried out in an integrated manner under the “Zero Waste” approach. The relevant procedures are documented through official records and receipts, and environmental impacts are monitored throughout the year.

13. [The Eco-Friendly Landscaping for a Sustainable Campus initiative](#) aims to conserve natural resources by reducing water consumption, lowering maintenance costs, and maintaining an aesthetically pleasing and vibrant campus landscape throughout the year. The use of drought-resistant plant species helps prevent unnecessary water consumption, particularly during the summer months, thereby supporting an environmentally friendly and sustainable campus environment.



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Throughout 2025, waste generated across IGU was segregated by type, recorded, and incorporated into the relevant waste management processes. Waste generated across the university was monitored under different categories, including municipal, glass, plastic, paper, metal, organic, hazardous, and medical waste.

Within the scope of the processes implemented throughout 2025:

- According to the 2025 annual totals, the university generated 7.55 tonnes of municipal waste, 3.35 tonnes of glass waste, 11.78 tonnes of plastic waste, 13.75 tonnes of paper waste, 2.70 tonnes of metal waste, 2.81 tonnes of organic waste, and 2.68 tonnes of medical waste. In addition, a total of 0.17 tonnes (165 kg) of hazardous waste was recorded.
- Within the scope of hazardous waste management, waste oils generated in gastronomy kitchens, contaminated packaging, and hazardous chemical waste were collected separately from other waste streams. In 2025, 65 kg of waste oil was collected from the gastronomy kitchens. To prevent the uncontrolled discharge of waste oils into the sewage system or the environment, these wastes are separately accumulated at the source and managed within the relevant waste management process.
- In addition, 20 kg of contaminated packaging waste coded 15 01 10 was generated and collected separately before being incorporated into the relevant waste management process. The amount of hazardous chemical waste coded 18 01 06 was recorded as 80 kg. These chemical wastes were collected separately from other waste types and managed in accordance with the applicable legislation.
- Accordingly, the total amount of the aforementioned hazardous waste recorded during 2025 was 165 kg. The source separation of hazardous waste, its storage under appropriate conditions, and its management through authorized/licensed organizations constitute key elements of the university's practices aimed at reducing environmental risks and preventing the uncontrolled release of waste into the environment.

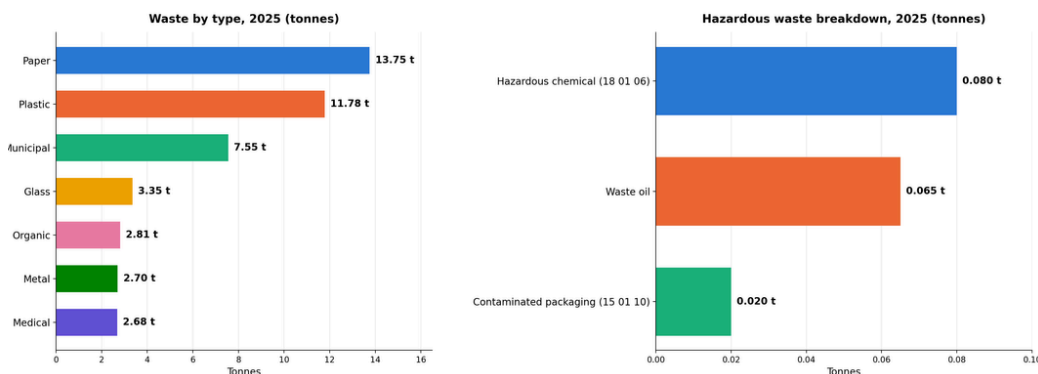


Figure 2. 2025 Annual Waste Generation by Type



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Overall, the segregation and recording of waste by type, the separate collection of recyclable waste, and the separation of hazardous waste from other waste streams contributed to IGU's efforts to improve resource efficiency, promote the circular economy, protect the environment, and enhance the effectiveness of the Zero Waste Management System.

The targets set for 2026 include:

- Making the segregation of hazardous waste types more systematic;
- Improving the infrastructure of temporary hazardous waste storage areas;
- Increasing the awareness and competencies of responsible personnel;
- Establishing an integrated hazardous waste management mechanism within the Zero Waste Management System.

These practices directly contribute to the university's objectives of reducing carbon emissions, preventing waste from entering the natural environment, contributing to the carbon cycle through energy recovery, and leaving a livable environmental for future generations.



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7.2.3.1. Carbon Footprint Measurement Process and Method

- The energy-related carbon footprint calculation of Istanbul Gelisim University (IGU) for 2025 was based on electricity, natural gas, gasoline, and diesel consumption. The energy consumption-based approach used in previous reporting periods was maintained; however, in the 2025 report, emission sources were additionally presented under Scope 1 and Scope 2 in accordance with the institutional greenhouse gas reporting framework.
- The classification of emissions into Scope 1 and Scope 2 was based on the GHG Protocol Corporate Accounting and Reporting Standard. Within this framework, direct fuel consumption from sources owned or controlled by the institution is classified under Scope 1, whereas indirect emissions associated with the generation of purchased electricity are classified under Scope 2. This classification does not constitute a separate calculation method that changes total emissions; rather, it provides a reporting framework that enables the sources of emissions to be presented more clearly.
- The energy consumption data for 2024 and 2025 are presented together below. Presenting the raw data side by side allows changes in energy consumption to be directly observed, independently of emission factors.

Table 3. Comparison of Energy Consumption Data for 2024 and 2025

Energy Source	2024	2025	Change
Electricity	4,523,414.21 kWh	4,829,516.19kWh	6,77%
Natural Gas	207,392.00 m3	203,671.00 m3	-1,79%
Gasoline	7,692.00 L	20,639.00 L	168,32%
Diesel	25,112.00 L	9,631.00 L	-61,65%



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Scope 1 Emissions from Direct Fuel Consumption: Natural gas, gasoline, and diesel consumption were classified under Scope 1. Emissions from fuel consumption were calculated based on the Tier 1 approach set out in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2: Energy, published by the Intergovernmental Panel on Climate Change (IPCC). Under this approach, fuel consumption is treated as activity data and is related to the energy content and emission factors specific to each fuel type. The IPCC Guidelines provide separate default CO₂ emission factors for natural gas, gasoline, and gas/diesel oil.

Based on IGU's 2025 consumption data and this approach, emissions were calculated as 411.21 tCO₂e from natural gas, 47.18 tCO₂e from gasoline, and 25.53 tCO₂e from diesel. Accordingly, total Scope 1 emissions amounted to 483.93 tCO₂e.

Table 4. Scope 1 Emissions in 2025

Source	2025 Emissions (tCO ₂ e)	Share of Total
Natural Gas	411,21	14,96%
Gasoline	47,18	1,72%
Diesel	25,53	0,93%
Total Scope 1	483,93	17,60%



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Scope 2 Emissions from Purchased Electricity: Emissions associated with electricity consumption were calculated based on the “2023 Türkiye Electricity Generation and Electricity Consumption Point Emission Factors Information Form” published by the Republic of Türkiye Ministry of Energy and Natural Resources, Department of Energy Efficiency and Environment. The Ministry states that electricity consumption point emission factors may be used to calculate Scope 2 greenhouse gas emissions arising from the electricity consumption of institutions. Accordingly, the emission factor of 0.469 tCO₂e/MWh, published for consumption points connected to the distribution grid, was used.

IGU’s electricity consumption in 2025 was 4,829,516.19 kWh, equivalent to 4,829.516 MWh. Multiplying this consumption by the emission factor of 0.469 tCO₂e/MWh resulted in Scope 2 emissions of 2,265.04 tCO₂e from purchased electricity.

Calculation:

$$4,829,516.19 \text{ kWh} / 1,000 = 4,829.516 \text{ MWh}$$

$$4,829.516 \text{ MWh} \times 0.469 \text{ tCO}_2\text{e/MWh} = 2,265.04 \text{ tCO}_2\text{e}$$

Table 5. IGU energy-related carbon footprint for the year 2025.

Emission Scope	2025 Emissions (tCO ₂ e)	Share of Total
Scope 1	483.93	17,60%
Scope 2	2.265.04	82,40%
Total Energy - Related Carbon Footprint	2.748,97	100,00%



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7.2.3.2. Carbon Footprint Calculation Result

The total energy-related carbon footprint calculated for IGU in 2025 within the scope of this study is 2,748.97 tCO₂e. Purchased electricity accounts for 82.40% of the total, while natural gas, gasoline, and diesel consumption account for 17.60%. This distribution indicates that electricity consumption is the primary determinant of the university's energy-related carbon footprint. Raw consumption data also provides an important sign in the same direction: electricity consumption increased by 6.77% compared to 2024. Considering that approximately four-fifths of total emissions originate from electricity, the increase in electricity consumption plays a critical role in the trajectory of the total carbon footprint. Therefore, monitoring building electricity usage and implementing energy efficiency measures represent the focus areas with the greatest impact on total emissions.

Natural gas consumption decreased by 1.79%. Although the change is limited, this decline is noteworthy as natural gas constitutes the largest portion of Scope 1 emissions. A 61.65% reduction in diesel fuel consumption is another key factor driving down direct emissions. Conversely, gasoline consumption rose from 7,692 liters to 20,639 liters, representing an increase of approximately 168%. While the share of gasoline in the total carbon footprint remains low, tracking the underlying reasons for this sharp rise in subsequent periods will be beneficial.

The 6.77% increase in electricity consumption compared to 2024 is considered to stem from higher campus utilization intensity and expanded educational and administrative activities. The limited 1.79% decrease in natural gas consumption is evaluated to be related to seasonal fluctuations in heating demand. The significant 61.65% decline in diesel consumption is attributed to reduced usage of diesel-powered vehicles and equipment, whereas the approximately 168% increase in gasoline consumption is thought to result from higher reliance on gasoline-powered vehicles and associated transportation activities.

Due to methodological differences between the calculation approach used in the previous reporting period and the emission factors and reporting framework applied in 2025, direct year-over-year comparison of total emission values was not performed. Instead, changes in energy consumption were evaluated using physical consumption data from 2024 and 2025.



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7.2.4. Plan to Reduce Energy Consumption

IGU has structured and detailed its plans for reducing energy consumption within the scope of its 2024–2028 Strategic Plan. The regulations and practices implemented in this context have been described in detail under the relevant sections above. The Plan includes targets such as reducing the use of energy sources such as electricity and natural gas, increasing renewable energy capacity, and increasing the proportion of green areas.

Some of the key targets and planned areas of implementation are summarized below:

- Electricity consumption: Electricity consumption was 4,829,516.19 kWh in 2025, and the target is to reduce it to 3,500,000 kWh by 2028.
- Renewable energy source capacity was 3,915,000 kWh in 2023 and is planned to at 4,000,000 kWh for 2024-2028.
- Natural gas consumption: No direct target has been specified for natural gas consumption; however, reductions are envisaged within the plans aimed at reducing total energy consumption.
- Transition to highly energy-efficient equipment
- Automation and improvements in mechanical systems (e.g., chiller replacement and LED conversion)
- Awareness-raising activities across the campus
- Expansion of automatic shut-off systems in unoccupied areas
- Regular monitoring and reporting of energy consumption in all buildings

[Click here for the Strategic Plan.](#) 

Some of the measures to be taken to reduce energy consumption are listed below:

- Savings-oriented practices in water, electricity, heating, and transportation should be continued, and decisions should continue to prioritize the procurement of environmentally friendly products that provide energy savings and have low carbon emissions.
- Activities aimed at increasing the use of renewable energy sources, particularly wind and solar energy, should be expanded, and efforts should be made to enable the University to meet its own energy needs.
- Necessary measures should be taken to ensure that newly constructed buildings are environmentally friendly green buildings.



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Table 6. Strategic Plan Objective 3 (SA 3) / Target 2 (SH 2): Increasing the Effectiveness of the Sustainable Environmental Management System

Purpose 3 (SP 3) To make multifaceted social benefit more effective by centering sustainability								
Goal 2 (SG 2): To increase the effectiveness of the sustainable environmental management system		Plan Starting Value 2023	2024	2025	2026	2027	2028	Actual 2025 Data
3.2.1	The university's ranking in the green, environmentally friendly university index (Türkiye)	58	55	50	48	45	40	71
3.2.2	The university's ranking in the green, environmentally friendly university index (World)	674	650	625	600	575	550	669
3.2.3	Electrical energy consumption (kw.hour)	3,901,005	3,900,000	3,800,000	3,700,000	3,600,000	3,500,000	4,829,516.19
3.2.4	Water consumption (m ³)	51,683	51,500	51,000	50,500	50,000	50,000	34.678
3.2.5	Annual amount of recycled water (m ³)	110	110	115	120	125	125	125
3.2.6	Total amount of waste (kg)	43,031	43,000	42,750	42,500	42,400	42,300	44.780
3.2.7	Amount of waste recycled (kg)	21,423	21,500	22,000	22,500	23,000	23,500	31.538
3.2.8	Amount of organic waste (kg)	14,471	15,000	15,000	15,000	15,000	15,000	2.811
3.2.9	Hazardous waste amount (kg)	186	200	210	220	220	220	165
3.2.10	Green area ratio (%)	26	26	26	26	27	27	24
3.2.11	Smoke-free airspace rate (%)	99.7	99.7	99.7	99.7	99.7	99.7	99.7
3.2.12	Capacity of renewable energy resources (kw.hour)	3,915,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4.80

An analysis of IGU sustainability data for 2025 indicates that, within the framework of corporate environmental management strategies, the amount of recycled waste exceeded the target threshold of 22,000 kg, reaching 31,538 kg; meanwhile, annual water consumption was recorded at 34,678 m³, remaining significantly below the targeted value of 51,000 m³ and resulting in notable resource savings. During the same period, the volume of recycled water successfully met the target of 125 m³, hazardous waste management processes remained well-controlled, and the smoke-free airspace ratio maintained its stable level at 99.7%.

Driven by academic expansion dynamics across the campus, annual electrical energy consumption stood at 4,829,516.19 kWh. In line with its carbon footprint reduction targets, the institution aims to step up its dedicated efforts toward reinforcing renewable energy infrastructure and advancing energy efficiency strategies.



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Table 7. Strategic Plan Objective 2 (SA 2) / Target 3 (SH 3): Participating in the Entrepreneurial and Innovative University Ecosystem

Purpose2 (SP 2) To increase scientific and technological research culture and competence within the framework of national and international standards								
Goal 3 (SG 3): To take part in the entrepreneurial and innovative university ecosystem		Plan Starting Value 2023	2024	2025	2026	2027	2028	Actual 2025 Data
2.3.1	Number of national and international patents, utility models or designs applied for	76	78	82	86	90	95	197
2.3.2	Number of finalized national and international patents	2	4	6	8	9	10	29
2.3.3	Number of resulting national and international utility models or designs	2	3	4	5	6	7	20
2.3.4	Number of active companies established within TDC	14	15	17	19	22	25	31
2.3.5	Number of students involved in Technology Transfer Office (TTO) projects	40	42	44	46	49	52	897
2.3.6	Number of projects carried out jointly with universities, institutions or organizations abroad	4	5	5	6	6	7	6
2.3.7	Number of internationally funded projects	6	7	7	8	8	9	6
2.3.8	Number of active faculty member technology companies	10	11	12	13	14	15	10
3.2.9	Number of events that bring together entrepreneurs and supporters	1	2	3	3	4	4	4
2.3.10	Number of innovation and entrepreneurship themed courses	74	76	78	80	82	84	94

When evaluated within the framework of SDG 7, the relevant indicators presented in Table 7 are considered an indicator of R&D capacity and innovative infrastructure for clean energy technologies. The institution's performance exceeding its 2025 targets in patent and utility model applications and registration rates enhances its potential to contribute to the development of clean and sustainable technological solutions.

The increase in the number of active companies within the TDC and students participating in TTO projects demonstrates the strengthening of qualified human resources and entrepreneurial capacity. Furthermore, internationally funded and joint projects, along with innovation courses in the curriculum, foster global collaboration and academic awareness to support the clean energy transition. Consequently, based on direct and indirect outputs, these indicators reveal that the institutional research and technology ecosystem plays a leveraging role in achieving SDG 7 goals.



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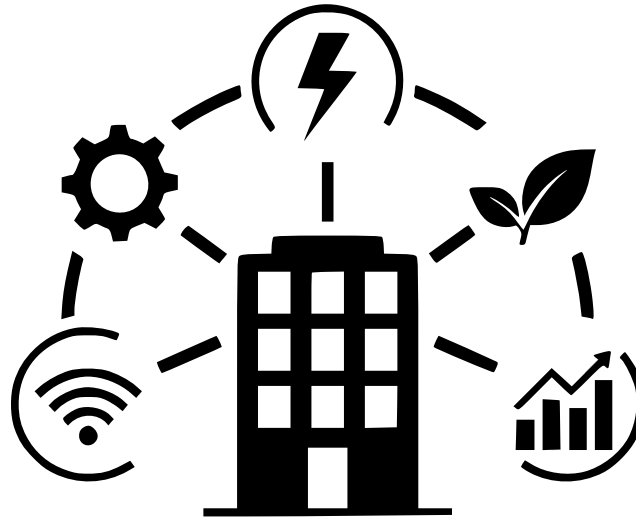
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7.2.5. Energy Wastage Identification

As part of its efforts to reduce energy waste, IGU conducts regular energy analyses and carries out technical interventions in areas where needed. In this context, the [Building Automation System](#) project, launched in 2023, provided detailed data on energy use and initiated improvement processes. In 2025, the tenders for the “Procurement and Installation of the Building Automation System” and “Building Construction, Ventilation and Automation Works” were completed to increase physical and technological capacity. In particular, with the system implemented at the Tower Campus, lighting, fire detection, and mechanical systems were revised, while efficiency was improved through dimmable lighting fixtures and daylight sensors.

Total electricity consumption was 4,523,414.21 kWh in 2024, while this figure was determined as 4,829,516.19 kWh in 2025. Carbon emissions increased by 5.19% compared to 2024. The main structural factors contributing to this increase in consumption include the rise in the number of active users (students and staff) on campus, the expansion of education and laboratory activities over time, increased cooling and heating loads resulting from climate change, and the calibration and adaptation processes during the initial operation period of the Automation System. This result indicates that energy waste identification and intervention processes are being carried out effectively.





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7.2.5.1. Analysis of Consumed Energy

Energy consumption is monitored through the relevant billing documents and is regularly recorded at the end of each month in the digital [QDMS Management System](#). Consumption data are analyzed through this system, and assessments are conducted in line with sustainability targets.

Electricity is the most intensively used energy source among the types of energy used at the University. Block-based electricity consumption data for 2025 were analyzed in detail, and total consumption was determined as 4,829,516.19 kWh. The analysis by month and building shows that A Block (Rectorate and administrative units) and K Block (housing several faculties, laboratories, and a high-rise building) stand out as the buildings with the highest consumption rates. The high energy consumption of these blocks is expected given their intensive use and the technical infrastructure they accommodate.

At the same time, these data demonstrate that the University monitors its energy consumption intensity, can identify areas with high consumption, and has the potential to develop targeted energy efficiency practices. Regular measurement and monitoring enable interventions aimed at preventing energy waste to be planned more effectively and strategically.

Table 8. Distribution of Electricity Energy Consumption (kWh) by Building and Month in 2025

Months	A Block	B Block	C Block	D-E Block	F Block	G Block	K Block	Total
January	73,685.79	9,997.68	15,338.40	10,847.04	13,375.90	32,255.78	246,242.03	401,742.62
February	68,962.05	8,120.03	14,776.40	9,406.44	10,747.10	26,456.67	217,779.53	356,248.22
March	62,869.01	11,513.70	15,345.04	10,798.50	11,598.30	35,642.30	240,989.40	388,756.25
April	53,752.73	9,562.63	11,738.64	9,047.04	9,547.30	31,472.28	215,440.43	340,561.05
May	47,069.73	10,510.00	12,221.36	8,916.06	8,864.50	36,081.14	249,445.35	373,108.14
June	52,972.34	6,942.98	10,783.52	7,101.84	8,538.80	25,677.32	267,350.85	379,367.65
July	72,384.80	4,487.28	8,501.72	7,747.08	9,824.90	30,043.98	416,396.03	549,385.79
August	67,041.09	2,951.93	7,355.80	5,228.34	9,671.10	31,094.51	357,799.50	481,142.27
September	62,319.42	5,159.08	7,363.36	6,203.34	9,471.00	28,989.32	255,903.75	375,409.27
October	56,801.84	9,747.67	12,793.24	9,954.42	10,168.10	35,767.53	230,054.62	365,287.42
November	59,025.02	9,714.33	11,996.04	9,505.32	11,024.00	33,846.57	226,333.80	361,445.08
December	76,898.43	13,584.70	15,794.16	13,031.46	14,393.80	41,374.13	281,985.75	457,062.43
Total	753,782.25	102,292.01	144,007.68	107,786.88	127,224.80	388,701.53	3,205,721.04	4,829,516.19



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An examination of the natural gas consumption data for 2025 shows that the total consumption of 203,671 m³ was largely concentrated in the winter months. January (47,610 m³), March (44,503 m³), February (36,868 m³), and December (32,566 m³) accounted for approximately 79% of total consumption. During the August–October period, consumption remained at very low levels, ranging from 39 m³ to 486 m³, while April and November reflected seasonal transition periods. Compared with the previous year, total consumption decreased slightly from approximately 207,392 m³ to 203,671 m³. Although this indicates a modest decline, consumption continued to be largely associated with heating needs. Energy efficiency and insulation practices therefore have the potential to further reduce consumption, particularly during the winter months.

Table 9. Total Natural Gas Energy Consumption (m³) in 2025

Months	Natural Gas Consumption (m ³)
January	47,610
February	36,868
March	44,503
April	26,707
May	6,888
June	431
July	43
August	39
September	409
October	486
November	7,121
December	32,566
Total	203,671



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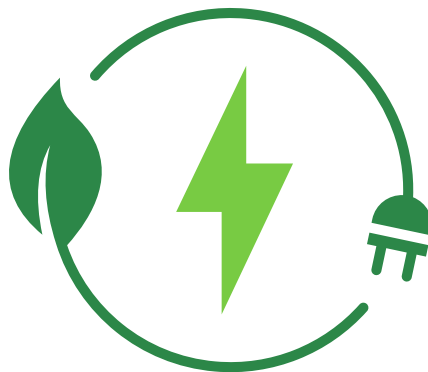
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When the 2025 energy and fuel consumption data are compared with those of 2024, electricity consumption increased by 6.77%, rising from 4.52 million kWh to 4.83 million kWh due to the effects of the increasing academic activities and campus use, while natural gas consumption decreased from 207.4 thousand m³ to 203.7 thousand m³, showing a slight decline of 1.79% and thus remaining relatively balanced. In transportation and service vehicles side, gasoline consumption increased from 7,692 liters to 20,639 liters, recording a 168.32% increase, while diesel consumption decreased from 25,112 liters to 9,631 liters, showing a significant decline of 61.65%; thus, in 2025, while the electricity and gasoline burden increased due to the expansion of the campus use, a trend toward savings in heating and heavy-duty vehicles came to the fore.

Table 10. Amounts of Energy Consumed by Energy Type in 2024 - 2025

Energy Type	Consumption Amount 2024	Consumption Amount 2025	Unit
Gasoline	7,692.00	20,639.00	Liter
Diesel	25,112.00	9,631.00	Liter
Natural Gas	207,392.00	203,671.00	m ³
Electricity	4,523,414.21	4,829,516.19	kWh





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7.2.6. Divestment Policy

IGU does not have a direct or indirect investment policy targeting energy sources based on fossil fuels such as coal and oil, which have high carbon emissions and adversely affect environmental sustainability. Considering environmental and social impact criteria is a fundamental principle among the University's investment priorities, and there is no funding, partnership, or sponsorship policy targeting carbon-intensive energy industries. Instead, in line with its institutional sustainability goals, the University prioritizes increasing the use of renewable energy and investing in environmentally friendly technologies.

This approach demonstrates that the University prioritizes environmentally friendly choices not only in energy investments but also throughout its strategic planning processes. In this regard, the [Sustainability Training Policy](#), [Environment Policy](#), [Sustainable Procurement and Supplier Policy](#), [Policy for Waste Management and Reducing Environmentally Hazardous Products](#), [Water Management Policy](#), [Research and Development Policies](#) and [Policy of Sustainability Research](#) have established energy efficiency, the use of environmentally friendly technologies, and the transition to renewable energy as strategic objectives. In addition, under the [Additional Policies](#), [Renovation and Sustainable Resources Policy](#) and [The Policy for Carbon Emissions and Nature Conservation](#) are actively in force. These policies contribute to reducing the University's environmental impacts, increasing its contribution to society, and achieving long-term sustainable development goals.



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7.3. Energy Use Density

In line with its sustainable energy management goals, IGU regularly monitors energy consumption intensity and evaluates its level of efficiency by analyzing energy use per unit of floor area. Energy consumption intensity (GJ/m²) is calculated by dividing the total consumption of each energy type by the University's total indoor floor area. This indicator is an important measure for assessing the extent to which energy use is proportional to physical space.

7.3.1. Energy Usage per Sqm

The table below presents IGU's energy consumption intensity per square meter for different energy sources in 2025.

In terms of individual energy sources, electricity consumption increased from 16,284.290 GJ in 2024 to 17,386.260 GJ in 2025, representing an increase of approximately 6.77%. In contrast, natural gas consumption decreased from 7,424.630 GJ to 7,291.420 GJ, corresponding to a decrease of approximately 1.79%. A more significant decrease was observed in diesel consumption, which declined from 901.646 GJ to 345.800 GJ, representing a decrease of approximately 61.65%. This change indicates that in 2025, energy consumption shifted further from fossil fuel-based sources toward electricity. In particular, the substantial decrease in diesel use may be associated with a reduction in diesel-related energy needs for transportation, generator use, or similar purposes compared with the previous year. The slight decrease in natural gas consumption also indicates that energy use for heating decreased to some extent compared with the previous year.

Table 11. Energy Use per Square Meter

Energy Type	Consumption(GJ)	Energy Consumption Intensity (GJ/m ²)
Gasoline	682.70	0.0025
Diesel	345.80	0.0013
Natural Gas	7,291.420	0.0271
Electricity	17,386.26	0.0646
Total	25,706.177	0.0955



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7.4. Energy and the Community

Istanbul Gelisim University does not limit its energy policies to institutional efficiency but also focuses on raising public awareness, promoting awareness of sustainable energy use, and acting with a sense of social responsibility. The activities carried out in this context demonstrate that the University adopts an approach to the energy transition that engages with society.

7.4.1. Local Community Outreach for Energy Efficiency

The University carries out various activities and produces digital content to inform the local community and raise awareness about energy efficiency. Within this scope, social activities have been organized on sustainable energy use and energy conservation, while talks, workshops and awareness-raising activities have been conducted with the participation of students, academics and members of the local community.

The [Sustainability Academy](#) within the University serves as an important platform for activities addressing energy efficiency, environmental awareness and social transformation. The [Sustainability Short Film Festival](#), organized within the scope of the Academy, aims to provide a creative perspective on environmental, social and economic sustainability. In addition, the [Sustainability Workshop](#), talks and film screenings for primary and secondary school students contribute to developing awareness of energy and environmental responsibility at an early age.



[Click here for news about the Sustainability Short Film Festival.](#)



[Click here for the Sustainability Workshop news.](#)



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In addition, awareness of topics such as energy efficiency, renewable energy and carbon footprint is promoted through content published on the University's [YouTube channel](#). Seminars organized on the University campus, student club activities and social responsibility projects also contribute to raising awareness among local residents, teachers and students about energy and supporting sustainable living practices.

[Click here for the Affordable and Clean Energy_1 video.](#)

[Click here for the Affordable and Clean Energy_2 video.](#)

At Istanbul Gelisim University, student clubs, academic units and sustainability-focused organizations organize various activities throughout the year on energy efficiency, environmental awareness and sustainable living. Some examples of these activities are presented below:

1. FIELD TRIP: Expomaritt Exposhopping-Istanbul/2025

Event Date: 18 February 2025

Expomaritt Exposhopping Istanbul – 18th International Maritime Exhibition was directly related to SDG 7, particularly its dimensions concerning energy efficiency and renewable energy, through its focus on improving energy efficiency, promoting the use of renewable energy, supporting the energy transition of the maritime sector, and expanding low-carbon practices. In addition, by bringing together sector representatives, technology and equipment manufacturers, port operators, shipyards, and other stakeholders, the exhibition contributed to the dissemination of knowledge and good practices related to the energy transition at the sectoral level.



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2. Think, Sustain, Inspire (TEDx)

Event Date: 22 November 2025

The event brought together experts from different disciplines and the academic community around sustainability and contributed to raising awareness of sustainable living and environmental responsibility. In this respect, the event was an activity that supported the development of social and academic awareness of key SDG 7 issues, including the sustainable use of energy resources, energy efficiency, and the transition to clean energy. In addition, by encouraging innovative thinking and solution-oriented approaches for a sustainable future, it played an important role in promoting behavioral and technological change that supports the energy transition.



3. Sustainable Innovation and Entrepreneurship Summit

Event Date: 18 January 2025

The Sustainable Innovation and Entrepreneurship Summit was held on 18 January 2025 at Istanbul Gelisim University, in collaboration with the Sustainable Environment and Society Application and Research Center (SCTUAM) and Green for Youth. The summit featured panels on “The Future of Sustainable Innovation,” “Social Responsibility and Sustainable Development,” and “Future Leaders: Young Entrepreneurs,” as well as exhibition stands where sustainability-oriented initiatives showcased their products and ideas.

The event was evaluated within the scope of SDG 7 (Affordable and Clean Energy), particularly in terms of fostering an innovative and sustainable entrepreneurship ecosystem that supports the energy transition. Promoting sustainable innovation created an environmental for the emergence of new business models and initiatives that could contribute to increasing energy efficiency and expanding clean energy technologies. In this respect, the summit was indirectly associated with SDG 7 targets 7.2 (increasing the share of renewable energy) and 7.3 (improving energy efficiency).



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4. Developments in the Electricity Sector and Career Opportunities

Event Date: 6 May 2025

The event addressed recent developments in the electricity sector and their implications for the sector's human resource needs. Rapid technological advancement and growing energy demand in recent years led to a significant transformation in the electricity sector. Renewable energy sources, digitalization, smart grids, and sustainable energy solutions were among the major developments shaping the sector. These developments increased the demand for professionals with new skills and competencies. This content was directly aligned with SDG Target 7.2 (increasing the share of renewable energy) and SDG Target 7.3 (improving energy efficiency). Furthermore, linking the sector's transformation to human resource development supported the technology and capacity-building dimension of SDG Target 7.a

Elektrik Sektöründeki Gelişmeler ve Kariyer Fırsatları Semineri

Elektrik Programı ve Elektronik Teknoloji Programı tarafından düzenlenen olan "Elektrik Sektöründeki Gelişmeler ve Kariyer Fırsatları" semineri, 06 Mayıs 2025 Salı günü G Blok Prof. Dr. Aziz Sancar Konferans Salonu'nda gerçekleştirilecektir.

İstanbul Gelisim Meslek Yüksekokulu Elektrik Programı ve Elektronik Teknoloji Programı iş birliğiyle düzenlenecek olan "Elektrik Sektöründeki Gelişmeler ve Kariyer Fırsatları" başlıklı seminer, 06 Mayıs 2025 Salı günü saat 13.00-15.00 arasında G Blok Prof. Dr. Aziz Sancar Konferans Salonu'nda gerçekleştirilecektir.

Seminerde, Boğaziçi Elektrik Dağıtım A.Ş.'den önemli isimler sektöre dair bilgi ve tecrübelerini öğrencilerimize paylayacaklar:

- Erkan Aydın – Saha Operasyonları Direktörü
- Hüseyin Keskîn – Saha Operasyonları İnsan Kaynakları Müdürü
- İsmail Dudağı – Saha İnsan Kaynakları Kıdemli Uzmanı

Moderatör: Öğr. Gör. Şehmus Turan (İGYO Elektronik Teknoloji Programı)

Sunucu: Öğr. Gör. İzzet Yavuz (İGYO Elektrik Programı)

Tüm öğrencilerimiz ve ilgilenen katılımcılar seminerimize bekliyoruz.

5. Busbar Energy Distribution Systems

Event Date: 28 May 2025

Energy distribution plays a critical role in many modern facilities, ranging from industrial plants and shopping centers to data centers and high-rise buildings. This seminar examined the structure, operating principles, and advantages of busbar energy distribution systems, which have emerged as an alternative to conventional cable systems. Participants had the opportunity to learn about the technical advantages of busbar systems—including ease of installation, safety, energy efficiency, and ease of maintenance—as well as gained insights into their field performance through real-world application examples across different sectors. Overall, the seminar aimed to provide valuable content for electrical engineers, technicians, project managers, and energy infrastructure professionals.

By focusing on Busbar systems that offer enhanced efficiency, safety, and streamlined installation in energy distribution, the event was directly aligned with SDG Target 7.3 (improving energy efficiency) and SDG Target 7.b (expanding and upgrading sustainable energy infrastructure).



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6. Smart Building Technologies: Comfort and Efficiency in Future Buildings

Event Date: 12 May 2025

The seminar addressed smart building technologies, which drove significant transformation in the construction sector alongside rapid technological developments. Smart buildings stood out for the benefits they provided in areas such as energy efficiency, security, user comfort, and sustainability, and shaped the living spaces of the future. The seminar introduced key components, including automation systems, the Internet of Things (IoT), energy management, sensor technologies, and artificial intelligence-based solutions. The economic, environmental, and social impacts of smart buildings were also discussed, allowing participants to gain insights into how modern buildings can be made more efficient, secure, and livable. By focusing on the contribution of automation, IoT, and energy management systems to energy efficiency at the building level, the seminar was directly aligned with SDG Target 7.3 (improving energy efficiency) within the built environment.



7. HVAC & Energy Technologies Summit – ISK-SODEX 2025

Event Date: 24 October 2025

The event was organized to enable students and academics to observe the latest developments in heating, cooling, ventilation, air conditioning, installation, and energy efficiency technologies firsthand. As part of the event, participants visited domestic and international company stands at the Istanbul Expo Center, attended technical demonstrations and product presentations, and explored opportunities for university–industry collaboration through direct interaction with sector representatives. The event also increased the University's visibility within the sector, created opportunities for future collaborations, and strengthened participants' awareness of sustainable energy and innovative technologies.

By focusing on developments in heating, cooling, air conditioning, and energy efficiency technologies, the event was directly aligned with SDG Target 7.3 (improving energy efficiency). In addition, its emphasis on cross-sectoral collaboration contributed to SDG Target 7.a (international/sectoral cooperation in clean energy)



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8. Resource Management and Sustainability in Airport Operations

Event Date: 25 December 2025

This talk addressed the concepts of resource management and sustainability in airport operations from a holistic perspective and aimed to increase students' awareness and knowledge of current transformation dynamics in the sector. The session explained, through practical examples presented by Saner Toksoz, an experienced manager at İGA, how environmental and water management, energy efficiency, carbon footprint reduction, waste management, and sustainable resource use contributed to the efficiency of airport operations. As the content directly addressed energy efficiency and carbon footprint reduction in airport operations, the event was directly aligned with SDG Target 7.3 (improving energy efficiency) as a practical application of sustainable energy practices in critical infrastructure.



9. Çamlıca Tower (Kule A.Ş.) Technical Visit

Event Date: 30 April 2025

Students from the Electrical Program and Electronic Technology Program at Istanbul Gelisim University had the opportunity to observe current practices in the electrical and electronics sectors during the technical visit to Çamlıca Tower. During the visit, students received detailed information about the transmitter systems, communication infrastructure, and operation of electronic equipment at Çamlıca Tower. As an important communication and broadcasting center in Istanbul, Çamlıca Tower hosted various radio, television, and telecommunications transmitters. The students observed the operating principles of these transmitter systems, their electrical infrastructure, power distribution, and maintenance processes on site. By providing practical knowledge of the electrical and electronic operation of energy-dependent critical infrastructure systems, the technical visit was directly aligned with SDG Target 7.b (expanding infrastructure and upgrading technology for supplying modern and sustainable energy services).



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10. Electrical Program & Electronic Technology Program – Omega Elektrik Technical Visit

Event Date: 2 May 2025



During the technical visit to Omega Elektrik Pano San. Tic. A.Ş., students had the opportunity to observe current practices in the electrical and electronics sectors firsthand. The visit provided detailed information on the production of electrical panels, industrial electrical systems, panel assembly, and the operation of electronic devices. Students reinforced their theoretical knowledge through practical observations in the field and developed their professional skills by interacting with sector professionals. The visit aimed to enhance students' engineering and technological knowledge, enable them to follow developments and innovations in the sector, and support their preparation for professional life.

Observing the production of electrical panels and industrial electrical systems in practice provided students with hands-on learning opportunities related to energy distribution technologies. In this respect, the activity was directly aligned with SDG Target 7.b (expanding infrastructure and upgrading technology for supplying modern and sustainable energy services).

11. Mutlusan Electrical Factory Technical Visit

Event Date: 7 May 2025

Participants had the opportunity to observe the company's electrical equipment production processes firsthand. During the visit, detailed information was provided on topics including energy efficiency, structured cabling systems, energy distribution equipment, and advanced automation technologies. Visitors also observed the production processes and quality control stages of critical components in Mutlusan Elektrik's product portfolio, such as electrical panels, distribution systems, frequency converters, and booster systems. In addition, information was provided on the company's R&D activities and innovative technological solutions. The technical visit provided participants with a comprehensive understanding of the design, production, and application areas of modern electrical systems, while also offering insights into emerging technologies responding to the needs of the sector.



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12. Boğaziçi Electricity Distribution (BEDAŞ) Çağlayan Technical Visit

Event Date: 8 May 2025

During the visit, participants gained comprehensive information about topics such as electricity grid infrastructure, energy management systems, smart grid technologies, and fault management. Boğaziçi Electricity Distribution Inc. (BEDAŞ) is an important institution responsible for electricity distribution in Istanbul. During the visit, students observed on site how energy distribution processes operate, including power distribution within the grids and the operating principles of transmission lines and transformer substations.

The examination of electricity grid infrastructure, energy management systems, and smart grid technologies provided a practical understanding of reliable access to electricity at the urban scale and the development of energy infrastructure. In this respect, the activity was directly aligned with SDG Target 7.1 (ensuring universal access to affordable, reliable, and modern energy services) and SDG Target 7.b (expanding infrastructure and upgrading technology for supplying modern and sustainable energy services).



13. From University to Industry: The Maker Spirit in R&D Seminar

Event Date: 22 October 2025

Productive individuals and creative thinking approaches play an important role in industrial development and technological innovation today. The “maker” culture represents not only an approach to production but also a way of learning and working that encourages learning through experimentation, rapid prototyping and multidisciplinary thinking. The seminar addressed how theoretical knowledge acquired at universities can be transformed into practical solutions through R&D and innovation processes. Participants were introduced to examples demonstrating the influence of the maker mindset on research projects, product development and university–industry collaborations, while the importance of university–industry cooperation and the dissemination of a technology development culture were also emphasized.

Addressing R&D and innovation culture more broadly, the seminar has a connection with SDG 7 through the potential application of developed prototypes and solutions in the field of energy efficiency.

22 Ekim 2025

Üniversiteden Endüstriye: AR-GE’de Maker Ruhu Etkinliği

İstanbul Gelişim Meslek Yüksekokulu Elektrik, Elektronik Enerji Ölçme, Bakım ve Doğrulama ile Dijital Ölçüm ve Elektronik Programlama bölümlerinde düzenlenen "Üniversiteden Endüstriye: AR-GE'de Mükem Akıllı" atkındığı, sektör akademisyerleri arayıp getirilerek Etkinlikte, AR-GE süreçlerinde mükemle yapılaşmasını önemi konuşulacaktı.

İstanbul Gelişim Üniversitesi Meslek Yüksekokulu, elektrik ve elektronik alanında yenilikçi eğitime köklerini geliştirmek amacıyla "Üniversitemiz Endüstriye: AR-GE'de Mükar Kulu" başlıklı etkinliği düzenliyor.

İkinci Kelebek, Öğr. Gör. Şehmus Turan (KMYO Dışarı Öğrenci Elektronik Program Başlangıç) sunusu olarak görev alırken, Öğr. Gör. İzzet Yılmaz (KMYO Elektrik ve Enerji Bölümü Başlangıç) moderatörlük yapmıştır. Proje konusunu bir Mühendislik AB-Gİ Teknoloji Muhammed Ömer Güneş olarak

Katılmalar, AR-GE süreçlerinde "maker" ruhunun inovasyon, girişimcilik ve uygulamalı mühendislik yetkinliği konusundaki etkilerini test etmeye fırsat bulacaktır. Üniversite sanayi iş birliğini güçlendirmeyi ve öğrencilerde yenilikçi

Tarih: 22 Ekim Çarşamba

📍 **Seat:** 14.00 - 16.00
📍 **Year:** G Block Prof. Dr. Aziz S.

İkinci, tüm öğrenciler, akademisyenler ve sektör temsilcileriyle



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14. Economic Integration and Industrialization in East Asia

Event Date: 24 October 2025

The seminar examined the changing balance of power shaped by economic integration and the political economy of East Asia. The discussion covered tensions between the United States and China, global value chains and industrial policies, the dynamics of the Fourth Industrial Revolution, and technological competition. The seminar also addressed China's increasing regional influence, the relative decline of Japan's high-tech industries compared with South Korea and China, and the changing economic landscape of East Asia.

By addressing industrialization and the dynamics of the Fourth Industrial Revolution, the seminar was aligned with SDG 7 (Affordable and Clean Energy) and SDG Target 7.b (upgrading technology and expanding infrastructure) through the relationship between industrial development, increasing energy demand, and technological competition.



15. BİSTLAB Opening Ceremony

Event Date: 29 May 2025

The BİSTLAB Opening Ceremony marked the official opening of BİSTLAB, which was established to support the development of innovative projects in financial technologies and expand opportunities for collaboration. The ceremony aimed to introduce BİSTLAB's vision, bring together relevant stakeholders, and encourage the development of technology-oriented solutions in the financial sector. As the inauguration of an innovation center focused on financial technologies, the event was aligned with SDG Target 7.a (promoting international cooperation and investment in clean energy technology) by fostering an ecosystem for technology-based innovation and potential green finance mechanisms for clean energy projects.



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16. Sociology Film Workshop I: Behind the Screen

Event Date: 20 March 2025

The workshop aimed to watch the film *Contratiempo* (The Invisible Guest) and discuss and analyze it from a sociological perspective following the screening. The purpose of the event was to examine concepts such as social structure, justice, power relations, media influence, and ethics through the film from a sociological perspective. Discussions focused on class privileges, the legal system, and social norms by examining the decisions of the characters and the development of events in the film. The workshop had a limited and indirect connection with SDG 7 (Affordable and Clean Energy), primarily through its broader association with the social justice dimension of sustainable development, including issues such as energy poverty and inequalities in resource access.



17. Yesterday, Today and Tomorrow of Broadcasting in Our Country

Event Date: 29 April 2025

The seminar provided an in-depth examination of Çamlıca Tower and Kule A.Ş., one of the important broadcasting centers in the country, and their role in the broadcasting sector. The construction of Çamlıca Tower and the connection between its transmitter systems and broadcasting were discussed in detail, with emphasis on the role of modern broadcasting technologies at the tower in nationwide distribution. The seminar also addressed the effects of digitalization and internet technologies on the broadcasting sector.

By focusing on the digital infrastructure of the broadcasting sector, the seminar was indirectly aligned with SDG Target 7.b (expanding infrastructure and upgrading technology for supplying modern and sustainable energy services) by addressing the energy-dependent technical infrastructure of communication transmitters.



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18. Interdisciplinary Symposium on Independent Living, Urban Areas and Health II

Event Date: 15 May 2025

The symposium aimed to analyze the social, economic, and environmental challenges arising from urbanization and to develop solution strategies through contributions from different disciplines. In this context, academic and practical knowledge was shared on urban policies supporting independent living, accessibility, social service models, and health approaches.

By addressing the multidimensional effects of urbanization on sustainable development, the symposium indirectly touched upon the energy dimension of urban infrastructure planning, including access to affordable and efficient energy services. Given its holistic approach covering all 17 SDGs, SDG 7 (Affordable and Clean Energy) formed one component of this broader framework.



19. Workshop on New Trends in Turkish Cooperatives in the International Year of Cooperatives 2025

Event Date: 23 May 2025

The workshop aimed to emphasize that cooperatives are not only economic structures but also instruments of social solidarity and transformation, while creating a platform that would raise awareness and provide inspiration for all participants, particularly young people. Within this scope, a final report containing the ideas and recommendations developed during the workshop was shared with the participants and the public.

By addressing cooperatives as mechanisms for social solidarity, the workshop had a conceptual connection with SDG 7 (Affordable and Clean Energy), particularly through community-based sustainable energy models such as energy cooperatives.



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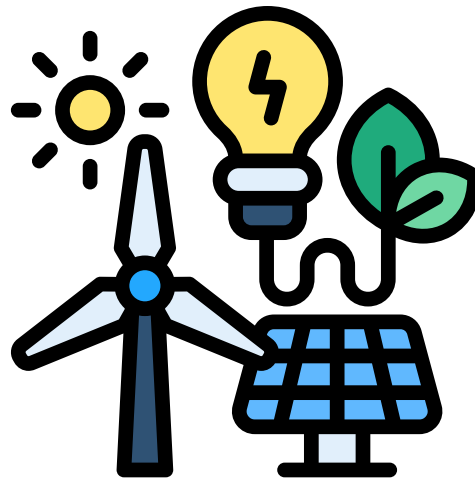




7.4.2. 100% Renewable Energy Pledge

Istanbul Gelisim University has adopted the transition to 100% renewable energy use as one of its strategic objectives, based on the principle of sustainability in energy consumption. In this regard, internationally recognized Renewable Energy Certificates (I-REC) are used to ensure that the electricity consumed on the campuses is supplied from renewable sources. At present, the University's entire electricity consumption is supplied from renewable energy sources certified through these certificates.

In addition, technical and feasibility studies are being carried out for the installation of solar energy systems on University rooftops and suitable campus areas. In the medium and long term, the University aims to reach a capacity that will enable its campuses to generate a significant proportion of their own electricity needs on site. Furthermore, practices such as LED conversion, automation systems and the use of energy-efficient equipment support efforts to increase the share of renewable energy.



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7.4.3. Energy Efficiency Services for Industry

Istanbul Gelisim University supports various academic and research projects aimed at providing consultancy, training and awareness-raising services to industry in the field of energy efficiency. Within this scope, studies are carried out both to encourage the use of energy-saving technologies and to promote practices that reduce carbon emissions.

One example of the projects supported by the University is presented below:

Project Title: Calculation of the Carbon Footprint of Istanbul Gelisim University Tower Building and Short-, Medium- and Long-Term Load Forecasting Using Artificial Intelligence Methods

Project Objective: In the project, the energy consumption data of the Istanbul Gelisim University Tower Building were measured using an energy analyzer and recorded on a computer via an RS-485 line. Using the data obtained, an energy analysis of the building was conducted and its annual carbon footprint based on energy consumption was calculated. In addition, artificial intelligence methods were used to forecast energy loads for one-day, one-week, six-month, one-year and five-year periods. Energy consumption was compared and evaluated by month. Furthermore, three different energy models were developed using HOMER software and examined from technical, economic and environmental perspectives. Within the scope of the project, information was generated for more effective energy management through the measurement and analysis of energy consumption, forecasting of future energy demand, and evaluation of different energy models. The calculation of the carbon footprint associated with energy consumption also contributes to identifying the environmental impact of energy use. In these respects, the project is directly related to United Nations Sustainable Development Goal 7, “Affordable and Clean Energy,” in terms of energy efficiency, effective energy management and sustainable energy planning. The applicability of the energy analysis, load forecasting and alternative energy modeling methods used in the project to different institutions and businesses may also provide a basis for future applications and collaboration in the field of energy efficiency for industry. The project was supported by the BAP Coordination Office of Istanbul Gelisim University.

[Project Link](#)



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Project Title: Awareness Research on the Use of Solar Panels to Reduce Carbon Footprint – Illuminate the Future, Lighten the Carbon Footprint

Project Objective: The project examines the role of solar panel use in raising awareness of carbon footprint reduction. Within this scope, a survey was conducted to determine the level of awareness of students at the Faculty of Applied Sciences of Istanbul Gelisim University regarding solar panels. The sample consisted of students who voluntarily participated in the research. The reliability of the data obtained through an online questionnaire prepared within the scope of ethical committee approval was assessed using Cronbach Alpha, while validity was evaluated using the Kaiser-Meyer-Olkin statistic. The data were analyzed using SPSS for Windows 25.0. Based on the results obtained from the research, public relations practices aimed at social responsibility were also carried out. The research anticipates findings indicating that the use of solar panels can reduce carbon footprint. In this respect, the project is directly related to United Nations Sustainable Development Goal 7, “Affordable and Clean Energy,” and Goal 13, “Climate Action.” The project contributes to SDG 7 by increasing awareness of solar energy use, promoting the wider use of renewable energy sources, and raising awareness of carbon footprint reduction. The publication of the research findings through Istanbul Gelisim University publications is also planned. The awareness created by the project regarding solar energy use provides an applicable knowledge base for future studies aimed at expanding renewable energy use in different institutions and businesses. The project was supported by the BAP Coordination Office of Istanbul Gelisim University.

[Project Link](#)

Project Title: An Experimental Study to Reduce Energy, Power and Maintenance-Repair Consumption Associated with Elevator Use in Multi-Storey Buildings and to Accelerate Inter-Floor Access (TÜBİTAK 2209-A)

Project Objective: The main objective of the project is to develop a system equipped with weight sensors and infrared sensors to increase sensor efficiency. By equipping the sensors in this way and integrating them with software, the project aims to prevent elevators from stopping unnecessarily at floors. In this way, both energy savings and an improved user experience will be achieved. Within the scope of the project, software algorithms will also be optimized and sensor data will be processed rapidly to ensure that the system operates accurately and precisely. This innovative approach aims to enable elevators to be used more efficiently and sustainably while providing both technological and environmental benefits.

[Project Link](#)



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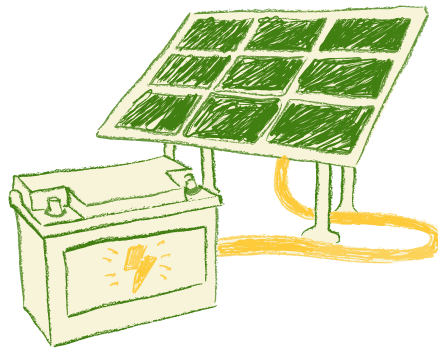
7.4.4. Policy Development for Clean Energy Technology

Istanbul Gelisim University produces knowledge, projects and practices that can guide policymakers and relevant institutions and organizations in the development and dissemination of clean energy and energy efficiency technologies. The University's sustainability vision has been integrated into its education, research and campus management policies, supporting efforts to promote environmentally friendly energy solutions.

Istanbul Gelisim University contributes to policy development processes by:

- Developing innovative and sustainable methods for waste management through recycling-oriented campus practices,
- Providing students with opportunities to develop competencies in clean energy technologies, energy efficiency and climate change through sustainability-themed academic programs and projects,
- Carrying out physical infrastructure investments and awareness-raising activities to increase the use of renewable energy,
- Supporting the dissemination of low-carbon technologies through research projects and sectoral collaborations.

These activities enable the University to contribute to policies and strategies for clean energy technologies not only on its own campus but also through cooperation with public institutions, the private sector and civil society organizations.



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7.4.5. Assistance to Low-Carbon Innovation

Through the [Technology Development Center \(İGÜ TEKMER\)](#), Istanbul Gelisim University provides comprehensive support to ventures operating in the fields of the low-carbon economy and sustainable technology.

İGÜ TEKMER provides a shared working environment for ventures developing innovative solutions at the intersection of biotechnology, electronics, software, robotics and mechatronics. In particular, the development of products that reduce carbon footprint and increase energy efficiency in areas such as healthcare, food, agriculture and environmental technologies is encouraged.

The main incentives and supports provided by [İGÜ TEKMER](#) are as follows:

R&D and Design Deduction: In technology center enterprises, 100% of R&D and innovation expenditures are deducted in the determination of institutional and commercial income. Depreciable assets included in R&D and innovation expenditures are also capitalized in accordance with the Tax Procedure Law and amortized through depreciation. In the event that completed R&D and innovation projects are transferred, the amounts capitalized by the enterprises receiving the projects are taken into account as a cost item in determining commercial or institutional income.

Income Tax Withholding Incentive (80–95%): In technology center enterprises, for projects carried out within the scope of R&D and support activities, 95% of the wages of personnel holding a doctoral degree or at least a master's degree in one of the basic sciences, 90% of the wages of personnel with a master's degree or a bachelor's degree in one of the basic sciences, and 80% of the wages of other personnel are exempt from income tax.

Social Security Premium Support (50%): A social security premium support is provided at a rate of 50%.

Stamp Duty Exemption: All types of negotiable instruments issued in relation to R&D and innovation activities covered by the relevant legislation are exempt from stamp duty. Accordingly, no stamp duty is charged on documents issued due to salary payments made to the relevant personnel.

Customs Duty Exemption: Goods imported for use in R&D and innovation projects carried out under the relevant legislation and approved by the Ministry of Industry are exempt from customs duties and all related funds. Documents and transactions issued within this scope are also exempt from stamp duty and fees.



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In addition, the infrastructure and services provided to entrepreneurs include:

- Equipped laboratories and testing facilities
- Rental offices and flexible working spaces
- Event and seminar organization
- Stakeholder collaborations and access to investors
- Mentoring support and expert guidance
- Opportunities to benefit from the University's qualified workforce

Through these comprehensive support mechanisms, ventures can develop sustainable and low-carbon innovative products such as medical devices, biosensors, smart healthcare applications, robotic solutions, and food and agricultural technologies. İGÜ TEKMER aims to contribute to a low-carbon future by increasing the competitiveness of young entrepreneurs in both national and international markets.



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7.5. Low-Carbon Energy Use

In line with its sustainability objectives, IGU prioritizes increasing the use of low-carbon energy sources in energy management and reducing dependence on fossil fuels. Within this scope, the use of renewable and environmentally friendly energy technologies is regularly monitored and reported each year.

7.5.1. Low-Carbon Energy Use

IGU aims to reduce greenhouse gas emissions by increasing the use of low-carbon energy sources in energy management. The University regularly monitors and reports energy consumption data in order to measure its environmental impacts and strengthen its sustainability strategies. Accordingly, data on low-carbon energy use for 2025 are presented below:

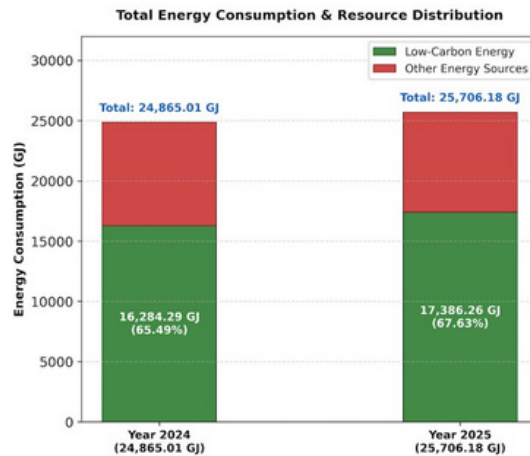


Figure 3. Energy Consumption by Low-Carbon and Other Sources, 2024–2025 (GJ)

In 2025, the University's total energy consumption reached 25,706.18 GJ, a 3.38% increase from 24,865.01 GJ in 2024. Low-carbon energy accounted for 17,386.26 GJ (67.63% of total consumption), marking a 6.77% growth compared to 16,284.29 GJ (65.49%) in 2024. Consequently, the share of low-carbon energy grew by 2.14 percentage points.

With the total floor area remaining constant at 269,160 m², low-carbon energy intensity increased from 0.0605 GJ/m² in 2024 to 0.0646 GJ/m² in 2025 (+6.78%), reflecting proportional growth in clean energy use per unit area.



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