

# ISO 14064: 2018 CARBON FOOTPRINT PUBLIC DISCLOSURE REPORT

*ABDULLAH GÜL UNIVERSITY*



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**ISO 14064: 2018 Carbon Footprint**

**Public Disclosure Report**

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# 1.

## Organization Information

Abdullah Gül University (AGU,) the first Turkish Public University supported by a philanthropic foundation (AGUV), was established on 21 July 2010 and enrolled its first students in the 2013- 2014 academic year. AGU was established in the city of Kayseri, a Historical, Industrial and Touristic Hub of Turkey counting 1,5 Mio inhabitants.

AGU was designed as a Socio-Technical University Model for Higher Education, an on-going initiative supported by the Turkish Ministry of Development. The project was defined with the help of over 20 Search Conferences and 40 Workshops, and has aimed at pioneering the New Generation University model in Turkey, with unique and innovative curricula and educational processes, with the objective of disseminating the project's findings across all higher education institutions in the country and beyond.

This pilot project, started in 2010 by the Turkish State to reform the Higher Education, was shaped by +700 contributors from Universities, Corporations, NGOs, etc. and is the 1<sup>st</sup> cross-sectorial initiative for a Hybrid University Model.

AGU, as a research university seeking solutions to global challenges through partnerships and learner-centered approaches, aims to raise citizens who can contribute to their communities and shape the future by converting knowledge into personal and social values.

With its mission focusing on societal impact, AGU targets global challenges, which will also stimulate students' professional careers and ambitions. AGU aspires to the ways of engagement with UN Sustainable Development Goals (SDGs) through the provision of qualified human resources, development of technology, production of patents, founding new start-up companies, running industrial projects, development of economic and social policies, contribution to the culture, and the dissemination of knowledge to the society.

AGU's primary objective is to pioneer "New Generation Universities" by blending the three university missions (1<sup>st</sup> Education, 2<sup>nd</sup> Research and 3<sup>rd</sup> Societal Impact) via innovative approaches, focusing particularly on the 3<sup>rd</sup> mission.

Within the framework of AGU's vision, AGU sees its contribution to the world and the environment as a responsibility. All stakeholders, governments, institutions, and individuals, are responsible for doing their part to bring climate change under control. AGU has prepared the Carbon Footprint Report to become a sustainable campus and analyze its environmental impacts by moving forward within the framework of its commitment to become carbon neutral by 2029.

AGU, while operating as an internationally-oriented university, strives to play a part in the global initiative by engaging in efforts that minimize its ecological footprint and work towards achieving sustainability objectives. It carries out its activities in line with the United Nations Sustainable Development Goals (UN SDGs). This carbon report contributes to SDG 7 (Affordable and Clean Energy), SDG 13 (Climate Action) and SDG 17 (Partnerships for the Goals).



# 2.

## Definitions and Acronyms

**Base Year:** A past period determined for comparison of greenhouse gas emissions, removals, or other greenhouse gas-related information in the future. Note – Base-year emissions or removals can be calculated based on a specific time period (one year) or the average of several time intervals.

**Biomass:** Organic matter of biological origin, excluding matter within geological formations and fossilized matter. Note 1: Biomass includes organic materials (both living and dead), such as trees, grains, grasses, woody debris, algae, animals, manure, and biologically derived wastes.

**Carbon Dioxide Equivalent (CO<sub>2</sub>e):** A unit used in comparing the radiative forcing of a greenhouse gas to that of carbon dioxide. Note – The carbon dioxide equivalent is obtained by multiplying the mass of a given greenhouse gas by its global warming potential.

**Carbon Footprint:** A term used to describe the amount of carbon released into the atmosphere as a result of a process's production, transportation, heating, energy consumption, or the purchase of any raw material and the production of any product.

**Confidence Level:** The degree of confidence requested by the target user in validation or verification. Note 1 – The confidence level is used to determine the details of the validation or verification plan designed by the approving or verifying party to determine whether there are material errors, omissions, or misunderstandings. Note 2 – Two confidence levels (reasonable or limited) result in different validation or verification statements.

**Facility:** A single facility, group of facilities, or production processes that can be defined within a single geographical boundary, organizational unit, or production process (fixed or mobile).

**Greenhouse Gas:** A component of Earth's atmosphere and clouds that absorbs and emits certain wavelengths of infrared radiation in the spectrum, both naturally and anthropogenically.

**Greenhouse Gas Activity Data:** A quantitative measure of an activity resulting in greenhouse gas emissions or removals. Note – Examples of greenhouse gas emission activity data include the amount of energy consumed, fuel or electricity used, materials produced, services provided, or affected land area.

**Greenhouse Gas Emission:** The total mass of one of the greenhouse gases released into the atmosphere over a specific period.

**Greenhouse Gas Emission or Removal Factor:** Factor related to activity data for greenhouse gas emissions or removals. Note – An oxidation parameter may also be included in the emission or removal factor of a greenhouse gas.

**Greenhouse Gas Inventory:** Information related to greenhouse gas sources, sinks, emissions, and removals for an organization.

**Greenhouse Gas Program:** A voluntary or mandatory international, national, or regional system or plan outside an organization or greenhouse gas project that records, processes, or manages records of greenhouse gas emissions, removals, emission reductions, or removal improvements.

**Greenhouse Gas Removal:** The total mass of one of the greenhouse gases removed from the atmosphere over a specific period.

**Greenhouse Gas Sink:** A physical unit or process that removes any one of the greenhouse gases from the atmosphere.

**Greenhouse Gas Source:** A physical unit or process that releases greenhouse gases into the atmosphere.

**Materiality:** A concept that can affect greenhouse gas declarations and decisions of target users due to errors, omissions, and misunderstandings, either in whole or in part.

**Monitoring:** The continuous or periodic assessment of greenhouse gas emissions, removals, or other greenhouse gas data.

**Non-Anthropogenic Biological Origin GHG Emission:** Greenhouse gas emissions resulting from natural disasters (e.g., forest fires or insect infestations) or natural evolution (e.g., growth, decomposition) of biological materials.

**Organization:** An entity with its own operation and management, whether public or private, joint or non-joint, a company, firm, entrepreneur, institution, or establishment, or any combination thereof or part thereof.

**Responsible Party:** The individual or individuals responsible for providing greenhouse gas declarations and information. Note – The responsible party can be individuals or a representative of an organization or project, and may collaborate with an approving or verifying party, such as a verifying customer or greenhouse gas program manager.

**Target User:** The person or organization identified by greenhouse gas reporters who rely on this information in decision-making. Note – Target users can be customers, responsible parties, greenhouse gas program managers, legislators, the financial community, or other stakeholders (local governments, government agencies, or non-governmental organizations).

CH<sub>4</sub> Methane  
CO<sub>2</sub> Carbon Dioxide  
N<sub>2</sub>O Nitrous Oxide  
HFC Hydrofluorocarbons  
PFC Perfluorocarbons  
SF<sub>6</sub> Sulfur Hexafluoride  
NF<sub>3</sub> Nitrogen Trifluoride  
CO<sub>2</sub>e Carbon Dioxide Equivalent  
EF Emission Factor  
NKD Net Calorific Value  
FV Activity Data  
GHG Greenhouse Gas  
GWP Global Warming Potential  
IPCC Intergovernmental Panel on Climate Change  
DEFRA Department for Environment, Food & Rural Affairs  
EPA USA Environmental Protection Agency

# 3.

## Inventory Boundary

### 3.1 Institution Boundary

The boundaries for the calculation of AGU's greenhouse gases were identified by taking into account its active offices. While determining the institutional boundaries, the "control approach" was adopted. Thus, only administratively or financially controlled boundaries were taken into account. In this context, greenhouse gas emissions due to the activities carried out or managed at the buildings and facilities located at AGU Sümer Campus, 38080 Kayseri, Türkiye were calculated.

All areas used for education including faculty, graduate schools, and administrative office buildings, sports centers, laboratory buildings, and residence halls and dormitories on the AGU Sümer Campus were counted in the institutional boundaries. Private establishments on the Sümer Campus were excluded from the calculations. The areas counted within the institutional boundaries are shown on Figure 1.

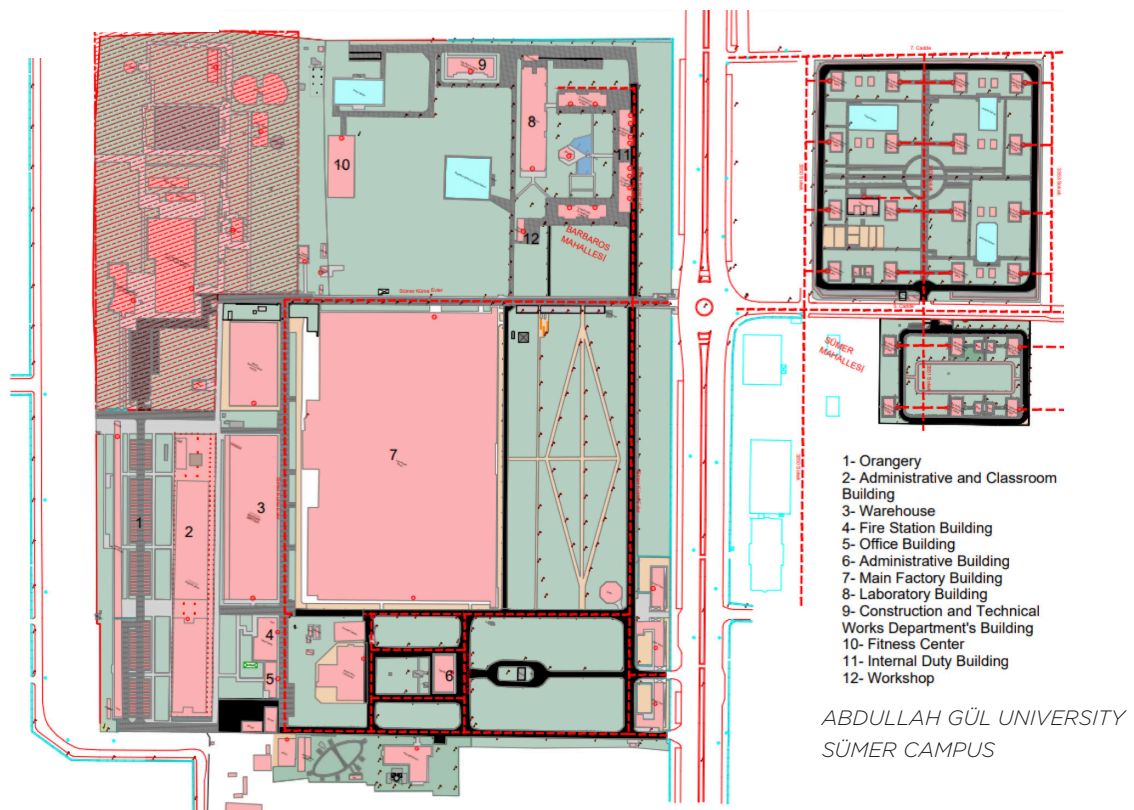


Figure 1. AGU Institution Boundaries



### 3.2. Report Boundary

The operational boundaries are identified by measuring the greenhouse gas emissions and removals caused by the activities of the organization. All potential emission sources to be counted within the operational boundaries are defined by the Greenhouse Gas Protocol and ISO 14064-1 standard. These can be categorized as

- Direct greenhouse gas emissions,
- Energy indirect greenhouse gas emissions,
- Other indirect greenhouse gas emissions.

## 4

### Emissions Summary

AGU is a young university established in 2010 and the preparation of greenhouse gas emission inventories has continued steadily since this report. Therefore, there is no reference point that can be compared with 2010. In this context, 2021 was taken as the base year for AGU carbon calculations. In 2022, the comparison of the carbon calculation realized by including all data is given in the table below.

Table 1. AGU's Total Carbon Emission

| No           | Scope   | Base Year (2021)<br>t CO <sub>2</sub> e | Current Year<br>(2022)<br>t CO <sub>2</sub> e | Base Year<br>(2021)<br>Carbon Intensity | Current Year<br>(2022)<br>Carbon Intensity |
|--------------|---------|---|---|---|--|
| 1            | Scope 1 | 733,11                                  | 1.069,47                                      | 0,2115                                  | 0,2495                                     |
| 2            | Scope 2 | 1.116,21                                | 1.500,75                                      | 0,3220                                  | 0,3501                                     |
| 3            | Scope 3 | 5.311,37                                | 1.035,23                                      | 1,5324                                  | 0,2527                                     |
| <b>Total</b> |         | <b>7.160,69</b>                         | <b>3.605,45</b>                               | <b>2,0659</b>                           | <b>0,8523</b>                              |

Category based emission values are given in the table below.

Table 2. AGU's Carbon Emission Sub-Categories

| No            | Sub Categories  | Sub Categories   | t CO <sub>2</sub> | te CH <sub>4</sub> | te N <sub>2</sub> O | Te CO <sub>2</sub> |
|---------------|---|--|-------------------|--------------------|---------------------|--------------------|
| 1             | 1.1 Sabit yakma kaynaklı doğrudan emisyon   | 1.1 Direct emissions from stationary combustion                                      | 913,2415          | 2,2826             | 0,4602              | 915,9844           |
| 2             | 1.2 Mobil yakma kaynaklı doğrudan emisyon   | 1.2 Direct emissions from mobile incineration  | 36,3207           | 0,2549             | 0,4749              | 37,0506            |
| 3             | 1.4 Antropojenik sistemlerde GHG salınımından kaynaklanan doğrudan kaçak / sızıntı emisyonu | 1.4 Direct fugitive/leakage emission from GHG release in anthropogenic systems       | 116,4340          | 0                  | 0                   | 116,4340           |
| 4             | 2.1 İthal edilen elektrikten kaynaklanan dolaylı emisyon                                    | 2.1 Indirect emissions from imported electricity                                     | 1500,7536         | 0                  | 0                   | 1500,7536          |
| 5             | 3.1 Girdi malzemelerin taşınması ve dağıtımını kaynaklı dolaylı emisyon                     | 3.1 Indirect emissions from transportation and distribution of input materials       | 188,226           | 0                  | 0                   | 188,226            |
| 6             | 3.2 Çıktı malzemelerin taşınması ve dağıtımını kaynaklı dolaylı emisyon                     | 3.2 Indirect emissions from transportation and distribution of output materials      | 0                 | 0                  | 0                   | 0                  |
| 7             | 3.3 Çalışanların işe geliş gidişleri kaynaklı dolaylı emisyonlar                            | 3.3 Indirect emissions from employee commuting                                       | 424,2991          | 0                  | 0                   | 424,2991           |
| 8             | 3.4 Ziyaretçiler ve müşterilerin tesise ulaşımını kaynaklı dolaylı emisyonlar               | 3.4 Indirect emissions from transportation of visitors and customers to the facility | 118,9514          | 0                  | 0                   | 118,9514           |
| 9             | 3.5 İş seyahatleri kaynaklı dolaylı emisyonlar  | 3.5 Indirect emissions from business travel  | 84,0108           | 0                  | 0                   | 84,0108            |
| 10            | 4.1 Satın alınan ürünlerden kaynaklı dolaylı emisyonlar                                     | 4.1 Indirect emissions from purchased products                                       | 36,8226           | 0                  | 0                   | 36,8226            |
| 11            | 4.2 Sermaye varlıklarından kaynaklı dolaylı emisyonlar                                      | 4.2 Indirect emissions from capital assets   | 4,7656            | 0                  | 0                   | 4,7656             |
| 12            | 4.3 Katı ve sıvı atıkların bertarafı kaynaklı dolaylı emisyonlar                            | 4.3 Indirect emissions from the disposal of solid and liquid waste                   | 27,5063           | 0                  | 0                   | 27,5063            |
| 13            | 4.4 İşletmenin mülkiyetinde olmayan varlıkların kullanımı kaynaklı dolaylı emisyonlar       | 4.4 Indirect emissions from the use of assets not owned by the entity                | 0,5675            | 0                  | 0                   | 0,5675             |
| 14            | 4.5 Diğer hizmetlerin kullanımı kaynaklı dolaylı emisyonlar                                 | 4.5 Indirect emissions from the use of other services                                | 0                 | 0                  | 0                   | 0                  |
| 15            | 5.1 Ürünün kullanım aşamasında kaynaklı dolaylı emisyonlar                                  | 5.1 Indirect emissions from the use phase of the product                             | 0                 | 0                  | 0                   | 0                  |
| 16            | 5.2 Tesisin mülkiyetindeki sermaye varlıklarının kullanımı kaynaklı dolaylı emisyonlar      | 5.2 Indirect emissions from the use of capital assets owned by the facility          | 0                 | 0                  | 0                   | 0                  |
| 17            | 5.3 Ürünün atık haline geldikten sonraki atık yönetimi kaynaklı dolaylı emisyonlar          | 5.3 Indirect emissions from waste management after the product has become waste      | 0                 | 0                  | 0                   | 0                  |
| 18            | 5.4 Yatırımlar kaynaklı dolaylı emisyonlar  | 5.4 Indirect emissions from investments  | 0                 | 0                  | 0                   | 0                  |
| 19            | 6 Diğer kaynaklar kaynaklı dolaylı emisyonlar   | 6 Indirect emissions from other sources  | 150,0753          | 0                  | 0                   | 150,0753           |
| <b>Toplam</b> |   | <b>Total</b>   | <b>3601,9745</b>  | <b>2,5376</b>      | <b>0,9351</b>       | <b>3605,4473</b>   |

#### 4.1. Significant Changes in Emissions

To begin, with this kind of reporting, AGU seeks to quantify and control its corporate greenhouse gas emissions, formulate and evaluate impactful initiatives as part of its corporate efforts to address climate change and foster awareness regarding corporate emission reduction. Therefore, it is important to improve the scope and data quality of the report. In this regard, during the assessment of AGU's carbon footprint inventory, which saw enhancements in 2022, the coverage of activities within Scope 3 was expanded and their details were further refined, particularly in the year 2022. Consequently, a more extensive carbon footprint inventory was prepared.

When we analyze the carbon emission rates for the base year and 2022 data, AGU has experienced a significant increase in Scope 1 and Scope 2 emissions, contributing to the overall increase in the base year to the current year comparison. However, AGU has made notable progress in reducing Scope 3 emissions, leading to a decrease in the total emissions. The decrease in total emissions and carbon intensity indicates AGU's positive efforts in emission reduction strategies and practices.

## 5.

### Emissions Reduction

The Paris Agreement is an international climate change agreement adopted in 2015 under the United Nations Framework Convention on Climate Change (UNFCCC). The main goal of the agreement is to continue efforts to keep global warming below 2°C and, if possible, limit it to 1.5°C. This aims to minimize the impacts of climate change around the world and maintain environmental sustainability. The Paris Agreement also requires countries to commit to reducing their greenhouse gas emissions and establish action plans to achieve these targets.

AGU's approach is also aligned with the 1.5°C Paris Target, in line with the IPCC roadmap. This target requires a global net reduction of 45% of anthropogenic greenhouse gas emissions by 2030, with the ultimate goal of achieving net zero emissions before 2050. Against this backdrop, the AGU's main objective is to set carbon reduction targets that exceed current global standards and implement a comprehensive plan. Therefore, AGU has made a commitment to achieve net zero carbon emissions by 2029. Continuous efforts are being made across the University campus to achieve this goal.

Since its inception, AGU has shown a strong commitment to various initiatives related to transportation, energy efficiency, and waste management with a focus on reducing carbon emissions. In this context, it has prepared its Strategic Plan for 2023-2027 as a result of being aware of its responsibility to contribute more efficiently. The Strategic Plan includes goals that will contribute to the environment such as reducing carbon footprint and switching to renewable energy sources. In addition, AGU has developed an Energy Efficiency Strategy. With this Strategy, AGU has determined the principles to be considered in energy efficiency, saving in the use of energy resources, and low CO<sub>2</sub> emissions. As an implementation of the Energy Efficiency Strategy, it has also set new targets by monitoring the emission rate by performing carbon calculations since 2021 and created the Abdullah Gül University Climate Action Plan.

AGU acknowledges its global responsibilities, and as a proactive measure, it enforces a range of policies, action plans, guidelines, and regulations in line with these responsibilities. Thus, AGU has established the Plastic Use Reduction and Disposable Products Policy. Accordingly, AGU is committed to reducing the amount of plastic and single-use products on its campus. This policy aims to prevent and mitigate the negative impacts of plastic and single-use products on the environment and human health.

In addition, there is Abdullah Gül University Energy Management Unit and Energy Management Directive to ensure energy savings and to control and reduce energy consumption at AGU. With this directive, AGU aims to regulate energy management practices, use energy effectively and efficiently, prevent energy waste, reduce the burden of energy costs on the institution's budget, and increase efficiency in energy use to protect the environment.

As a continuation of these activities, AGU has a Waste Management (Zero Waste) Committee, which has developed a Waste Management Directive. This Directive aims to regulate the principles for the sorting, safe temporary storage, transportation, and final disposal of waste generated from teaching, research and service activities under the responsibility and authority of AGU within the university. An annual Waste Management Report is also published to monitor the implementation of this directive. In recognition of its commitment to environmental sustainability and responsible practices, AGU also holds the AGU Zero Waste Certificate. This certification reflects AGU's commitment to waste management and emphasizes our continued commitment to a greener and sustainable future.

Furthermore, AGU has established the Sustainability Office as a result of the importance it attaches to Sustainable Development Goals. Through this office, AGU carries out sustainability activities more systematically while making a global contribution.

Moreover, the AGU Sümer Campus represents an exemplary university location that has been dedicated to environmentally friendly and sustainable practices from its inception. AGU's most-used main building received silver LEED Certification in 2015 for its use of a greywater recycling system. AGU's LEED Certification proves that all AGU facilities are designed and constructed using strategies that aim to improve performance in energy conservation, water efficiency, reduction of CO<sub>2</sub> emissions, improvement of indoor quality, and sensitivity to resource conservation and impacts.

AGU aims to create a pedestrian-friendly campus by continuing its efforts for a sustainable environment. Therefore, AGU has adopted a philosophy that promotes urban environmental awareness through pedestrian traffic, encourages pedestrian living, and supports the use of bicycles within the campus. By supporting pedestrian and bicycle transportation within the campus, it reduces the carbon dioxide emissions generated within the campus and consequently aims to reduce the individual carbon footprint of community members.

Some of the other activities AGU has undertaken to reduce emissions are listed below:

- **Waste Reduction and Recycling Programs:** Waste management strategies are updated to contribute to recycling more waste.
- **Education and Awareness Raising:** Students, staff and the community are made aware of environmental sustainability through training programs and awareness campaigns.

- **Sustainable Food and Dining Services:** The environmental impact of catering services is reduced by preferring sustainable agricultural products and local foods in university dining halls.
- **Collaboration and Partnerships:** The number of sustainability projects is increased by collaborating with other international institutions, universities, local institutions, non-governmental organizations, and the private sector.

AGU will continue to contribute to the international community in the future.

## 6

### AGU's Future Goal

As a state university, AGU has set the following goal in line with the climate strategies and targets adopted in our country. AGU has committed to achieving carbon neutrality by 2029. To achieve this goal AGU set following targets and activities:

Table 3. AGU's Future Goal

| Goal                                | Targets  | Activities   |
|-------------------------------------|--|--|
| Achieving Carbon Neutrality by 2029 | Reduce net emissions from category 1 to zero by 2027     | Calculate and verify category 1 emissions<br>Evaluate carbon pricing mechanisms<br>Prioritizing emission sources according to emission amounts for reduction         |
|                                     | Reduce net emissions from category 2 to zero by 2024     | Calculate and verify category 2 emissions<br>Evaluate carbon pricing mechanisms<br>Prioritizing emission sources according to emission amounts for reduction         |
|                                     | Reduce net emissions from categories 3,4,5,6 %40 by 2028 | Calculate and verify categories 3,4,5,6 emissions<br>Evaluate carbon pricing mechanisms<br>Prioritizing emission sources according to emission amounts for reduction |

A In order to achieve this goal AGU will:

- Raise students with high awareness and consciousness about climate change,
- Raise this awareness in the institutions where AGU graduates work and create a wider impact on reducing greenhouse gas emissions
- Increase renewable energy resources by conducting an energy audit
- Continue practices to get ISO 50001 Energy Management Certificate

To achieve these goals, the aim is to progressively reduce and ultimately eliminate greenhouse gas emissions through guided activities. The AGU Sustainable Development Committee, tasked with achieving these goals, is responsible for planning and executing these initiatives.

## 7.

### Conclusion

AGU has taken intentional actions toward sustainability by aiming for carbon neutrality by 2029. This carbon footprint report demonstrates a dedication to analyzing and reducing our environmental impact. We intend to reach our target through active actions such as the use of renewable energy sources, increased energy efficiency, and the promotion of environmentally responsible practices.



As a result of AGU's efforts, AGU was awarded the first prize in the 'Outstanding Contribution to Environmental Leadership' category at the 2023 Times Higher Education Asia Awards, often referred to as the 'Oscars of Higher Education,' in recognition of its environmental contributions through its activities. AGU has achieved this success with its improvement efforts and projects such as the Strategic Plan, Climate Action Plan (CAP), Zero Waste and Smart Building (LEED) Certification, ISO 14064:2018 Certification. AGU will continue to increase its contributions to the environment.

Our university community's teamwork and dedication have been critical in our journey. We extend our gratitude to everyone participating as we work together to execute and develop these projects. The journey to carbon neutrality is not simply an environmental commitment, but also a community effort toward a more sustainable and resilient future.

# Greenhouse Gas Verification Statement

*The inventory of Greenhouse Gas emissions of*  
**ABDULLAH GÜL ÜNİVERSİTESİ**

*Organizational Boundaries*  
Sümer Kampüsü 38080 Kayseri, Türkiye

has been verified in accordance with ISO 14064-3:2019 as meeting the requirements of

## ISO 14064-1:2018

|  |                                     |
|--|-------------------------------------|
| <i>Category 1- Direct Emissions</i>                                      | 1.069,47 t CO <sub>2</sub> eq       |
| <i>Category 2- Emissions from imported energy</i>                        | 1.500,75 t CO <sub>2</sub> eq       |
| <i>Category 3- Emissions from transportation</i>                         | 815,4873 t CO <sub>2</sub> eq       |
| <i>Category 4- Emissions from products / service used</i>                | 69,66 t CO <sub>2</sub> eq          |
| <i>Category 5- Emissions from associated with the use of the product</i> | Nil t CO <sub>2</sub> eq            |
| <i>Category 6- Other Emissions</i>                                       | 150,08 t CO <sub>2</sub> eq         |
| <b><i>Total Emissions</i></b>  | <b>3.605,44 t CO<sub>2</sub> eq</b> |

Level of Assurance : Reasonable Verification Report Date : 10.11.2023  
Reporting Period : 01.01.2022 - 31.12.2022 Statement No : 085 / 2022

Authorized by  
**Okay Kayhanlı – Director**





# ISO 14064-1:2018 Verification Statement

Revision 0

INSTITUTE

ABDULLAH GÜL ÜNİVERSİTESİ

Report Author

Okay Kayhanlı

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## ISO 14064-1:2018 Verification Statement

|                                      |  |               |  |
|--------------------------------------|--|---------------|--|
| <b>Institute</b>                     | ABDULLAH GÜL ÜNİVERSİTESİ  |               |  |
| <b>Adress</b>                        | Sümer Kampüsü 38080 Kayseri, Türkiye                             |               |  |
| <b>Phone</b>                         | +90 352 224 88 00  | <b>Faks</b>   | --   |
| <b>Web</b>                           | <a href="http://www.agu.edu.tr">www.agu.edu.tr</a>               | <b>E-Mail</b> | <a href="mailto:sustainability@agu.edu.tr">sustainability@agu.edu.tr</a> |
| <b>Third party Verification Body</b> | QSI Belgelendirme, Muayene ve Test Hizmetleri Ltd. Şti           |               |  |
| <b>Adress</b>                        | Mira Ofis, Beytepe Mah. 5397 Sokak, B1 Blok D:2, Çankaya, Ankara |               |  |
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| <b>Web</b>                           | <a href="http://www.qsi.com.tr">www.qsi.com.tr</a>               | <b>E-Mail</b> | <a href="mailto:info@qsi.com.tr">info@qsi.com.tr</a>                     |
| <b>Lead Verifier</b>                 | EMRAH DUMAN  |               |  |
| <b>Verifier/s</b>                    | CİHAN YEŞİL  |               |  |
| <b>Indipendent Reviewer</b>          | DİLAN BAĞDATOĞLU SARIN   |               |  |
| <b>Statement Decision Maker</b>      | BENGİ ÇİFTÇİ   |               |  |
| <b>Statement No</b>                  | 085-2022   |               |  |
| <b>Statement Date</b>                | 10.11.2023   |               |  |



|  |  |
|--|--|
| <b>Organisational Boundaries</b>               | Sümer Kampüsü 38080 Kayseri, Türkiye   |
| <b>Verification Period</b>                     | 01.01.2022 – 31.12.2022  |
| <b>Verification Criteria</b>                   | ISO 14064-1:2018, ISO 14064-3:2019   |
| <b>The Aim &amp; Scope of the Verification</b> | Independently and objectively monitoring the compliance of the emissions, directly and indirectly controlled by the establishment, with the requirements of the greenhouse gas reporting standard EN ISO 14064-1:2018  |
| <b>Method Used</b>                             | Based on Calculation   |
| <b>Emission Factors</b>                        | Emission factors are compiled from IPCC and DEFRA 2022. The electricity emission factor was compiled from national inventory. Emission factors for indirect emissions, and intensity and sub-thermal values are compiled from internationally recognized sources.            |
| <b>Consolidate Methode</b>                     | <input checked="" type="checkbox"/> Operational Control<br><input type="checkbox"/> Financial Control<br><input type="checkbox"/> Equity Share   |
| <b>Level of Assurance &amp; Materiality</b>    | <input checked="" type="checkbox"/> Verified at Reasonable Assurance Level (5%)<br><input type="checkbox"/> Verified at Limited Assurance Level  |
| <b>Evaluation by Verification Criteria</b>     | The evaluation made by the verification team suggests that the greenhouse gas report meets the verification criteria.  |
| <b>Verification Result</b>                     | QSI confirms that the greenhouse gas statement report of the organization is prepared in accordance with the requirements of EN ISO 14064-1 for the above-mentioned verification period according to EN ISO 14064-3 standard & ISO 17029:2019 and ISO 14065:2020 principles. |



## 1- Reporting Boundaries

The organization has developed a risk-based method to determine indirect greenhouse gas emissions by importance criteria.

For indirect emissions in the less important category, they are included in the calculation if sufficient data is available.

Following the materiality analysis made by the organization, the following emissions have been taken into account.

### Category 1 – Direct GHG emissions and removals

- Stationary combustion
- Mobile combustion
- Leakage (Refrigerants, Fire Extinguishers inventory)

### Category 2 – Indirect greenhouse gas emissions from imported energy;

- Electricity Consumption

### Category 3 – Indirect greenhouse gas emissions from transportation;

- Upstream Transport and Distribution
- Employee Commuting
- Business Travel
- Client or Visitor Transport
- WTT

### Category 4 – Indirect greenhouse gas emissions from products used by the organization;

- Purchased Goods
- Capital Goods
- Waste Disposal
- Arising from the use of assets
- Purchased services

### Category 6 – Greenhouse gas emissions from other sources



## 2- Exclusions from Reporting Boundary

As a result of the significant evaluation made by the organization, it has been determined that no emission source that has been evaluated as important has been excluded from publication.

## 3- NCN's

There are no non-compliances that remain open from the audits and need to be reviewed.

## 4- Verification Explanation

The purpose of the verification is to establish a reasonable trust level opinion on the above-mentioned greenhouse gas statements, including:

- a) Compliance with the requirements of TS EN ISO 14064-1 standard,
- b) The acceptability of the calculated emissions.

The verification activities carried out are based on the ISO 14064-3:2019 standard and ISO 14065:2020 principles. In this context, the following verification activities were carried out;

- Reviewing of documentation, controls and methods, including other verification reports,
- Preparation of the risk assessment and verification plan,
- Evaluation of greenhouse gas information management, documentation, records, controls and methods of the organization,
- Documentation of verification findings and observations in the verification report,
- Assessment and documentation of non-conformities and reconciliations of observations in the verification report,
- Preparing the verification statement and completing the verification.

During the verification process, a risk assessment was made, a sample plan and a verification plan were created, and within the framework of this planning, documents were reviewed and site visits were made for the following purposes;

- Selection and management of greenhouse gas information and data,
- Processes for collecting, processing, combining and reporting greenhouse gas information and data,



- Processes and systems created for the accuracy of greenhouse gas information and data,
- Studies conducted to design and maintain the greenhouse gas information system,
- Systems and processes that ensure the continuity of the greenhouse gas information system,
- Other systems supporting greenhouse gas information system
- Results of previous evaluations, if available and applicable

Findings determined during the document review and site visit were presented to the organization with the Greenhouse Gas Verification Correction Table. The purpose of presenting the verification findings is to agree on the greenhouse gas statement and to identify the issues that need to be clarified.

Correction actions (CA) have been reported and adjusted within the reporting period.

In addition, the verification team requested an explanation from the organization in cases where there was not enough or enough clear information to decide that the report meets the requirements of TS EN ISO 14064-1:2018.

The responses sent by the organization regarding the explanation and correction activities were evaluated and it was determined that the deficiencies that required explanation and correction were corrected.

The verification activity results and the verification report were subjected to a technical review and approved by the technical reviewer.

## **5- Greenhouse Gas Information System and Control**

In order to carry out the greenhouse gas information system and controls by the organization, a document system that explains how to document and archive including information management system activities consistent with the intended use of the greenhouse gas statement, which ensures the accuracy and completeness of the greenhouse gas statement and complies with the relevant principles of EN ISO 14064-1:2018 has been prepared.

Data collection, processing and reporting processes have been verified by field audits.



## 6- Methodology

The calculation methodology is stated as multiplying the activity data by the emission factor.

TIER-1 is accepted in the calculation methods. However, TIER 2 approach is applied in electricity emission calculations.

Greenhouse gases covered include the seven (7) greenhouse gases covered by the Kyoto Protocol ISO 14064-1: 2018, which are;

CO<sub>2</sub> carbon dioxide, CH<sub>4</sub> methane, N<sub>2</sub>O nitrous oxide, NF<sub>3</sub> nitrojen trifluorid, HFCs hydrofluorocarbons, PFCs perfluorocarbons, SF<sub>6</sub> sulphur hexafluoride.

## 7- Evaluation of GHG Statement

The evidences obtained in the evaluation of the controls are sufficient according to the greenhouse gas data, information and the criteria of the current greenhouse gas program and support the greenhouse gas statement.

|  |   |                               |
|--|---|-------------------------------|
| Total GHG Emissions  | : | 3.605,44 t CO <sub>2</sub> eq |
| <b>Direct Emissions</b>  |   |                               |
| <i>Category 1- Direct Emissions</i>  | : | 1.069,47 t CO <sub>2</sub> eq |
| <b>Indirect Emissions</b>  |   |                               |
| <i>Category 2- Emissions from imported energy</i>                                  | : | 1.500,75 t CO <sub>2</sub> eq |
| <i>Category 3- Emissions from transportation</i>                                   | : | 815,48 t CO <sub>2</sub> eq   |
| <i>Category 4- Emissions from products / service used</i>                          | : | 69,66 t CO <sub>2</sub> eq    |
| <i>Category 5- Emissions from associated with the use of the product / service</i> | : | Nil t CO <sub>2</sub> eq      |
| <i>Category 6- Other</i>   | : | 150,08 t CO <sub>2</sub> eq   |
| <b>Anthropogenic biogenic GHG emission</b>   |   |                               |
| <i>Biogenic Emissions</i>  | : | Nil t CO <sub>2</sub> eq      |



I-REC Reference Number :

**Approving The Report on Behalf Of QSI  
Okay KAYHANLI  
General Manager**

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