# Arçelik A.Ş.

Green Bond Allocation and Impact Report

**June 2022**

Arçelik

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# Executive Summary

Climate risk is one of the biggest risks that humanity and business lines are facing today since there is no planet B. According to the IPCC analysis, both public and private players have to plan their business activities in line with the most aspirational climate scenario of RCP 1.9 by referencing to the limiting the global warming with 1.5°C to minimize the impacts of global warming in both the short and longer terms.

To support this transformation, Arçelik works endlessly by putting sustainability at the top of the company's agenda and searching the way of stewardship for all ESG headings. With this aspiration, Arçelik issued the first-ever international corporate green bond in Turkey with €350 million- and 5-year maturity. Arçelik's green bond issuance is designed to collect projects from different countries that can help climate friendly transformation such as energy and water efficiency, circular economy, preventing pollution and wastewater, supporting renewable energy, and increasing the number of eco-friendly products.

During the fiscal years between **2018-21** €189,844,582 was disbursed between the projects that were approved in the green bond eligible projects. This amount is equal to **385** projects; **139** of those were under the category of energy efficient products, **89** eco-efficient and/or circular economy adapted products, **116** energy efficiency in production, **14** pollution prevention and control, **21** sustainable water and wastewater management, and **6** renewable energy.

This ***Green Bond Allocation and Impact Report*** is designed to prove Arçelik's current and future aspiration for environmental sustainability to maintain company's climate stewardship position with this first-ever green bond issuance.

## Arçelik's Support for SUSTAINABLE DEVELOPMENT GOALS

**Empowering responsible and sustainable value**

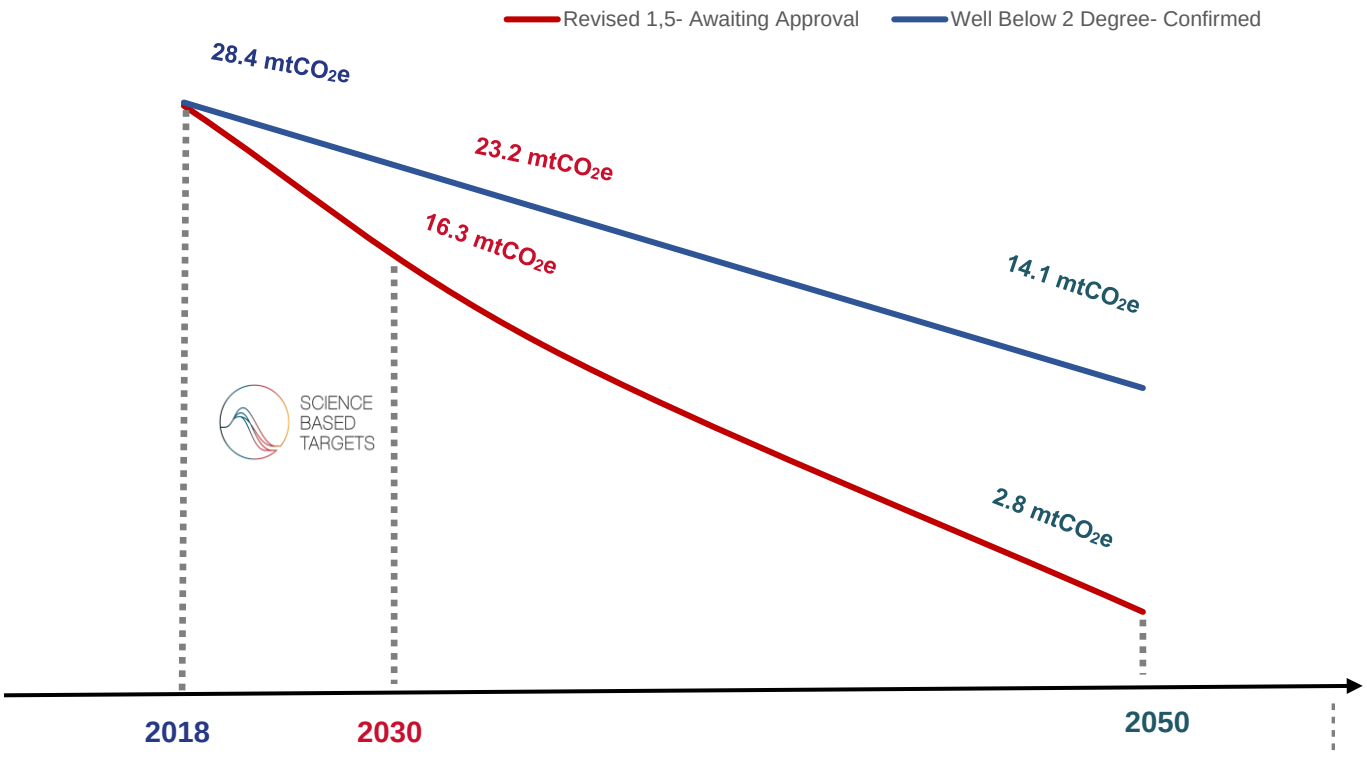
**Improving the lives of people**


**Sustainable innovations & product range**

**Sustainable leadership**

# Integrating Arçelik's Green Bond Issuance with Ambitious Environmental Targets

Arçelik with the vision of "Respecting the World, Respected Worldwide" puts sustainability as one of the most significant strategic priorities for business operations. The company divides sustainability focus by three main headings: **In Touch with Planet**, **In Touch with Human Needs** and **In Touch with Business.**[1] In parallel with that, Arçelik has two ambitious environmental targets referring to the years 2030 and 2050. Previously, Arçelik was aiming to decrease absolute global Scope 1 and 2 emissions by 30% and Scope 3 emissions by 15% in line with the SBTi well below 2°C. Currently, as of 2030, the company aims to reduce the absolute global Scope 1, 2 and 3 emissions by 50.4% by referencing to the SBTi 1.5°C.[2] As of 2050, Arçelik committed to the SBTi Net Zero Standards to reduce Scope 1, 2 and 3 emissions by 90% in all value chain to become a net zero company.[3]



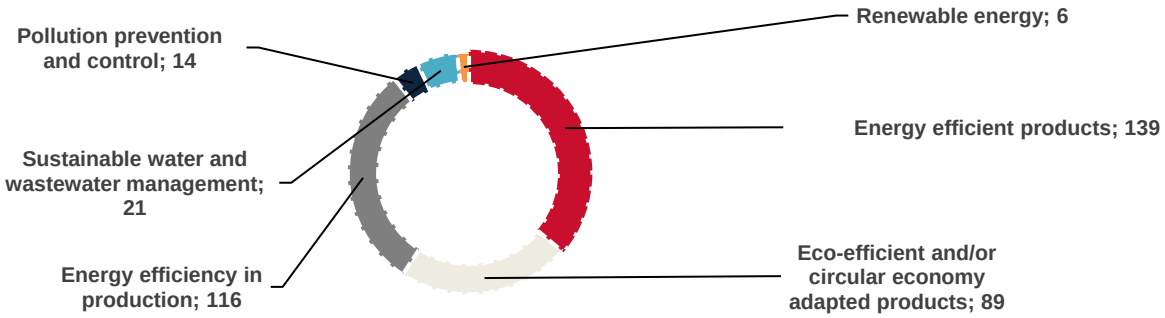

[1] This Green Bond Allocation and Impact Report includes details related with the *In Touch with Planet* section because of the projects eligible in green bond list.
[2] Arçelik's revised SBTs are under the approval process of the SBTi. The approved SBTs are aiming 30% reduction in absolute Scope 1,2 emissions and 15% reduction in Scope 3 emissions. For details please visit SBTi **official web-site** by searching "ARÇELİK A.Ş."
[3] Arçelik plans to invest in voluntary carbon markets for the remaining 10% emissions. For details please **visit Arçelik Global's official web-site** for the company's 2050 pathway.

Currently, Arçelik has services in more than 145 countries with its 12 brands. Having built a global organization network with 28 production facilities in 9 countries and 74 subsidiaries in 49 countries, Arçelik introduces the company's products to the customers in various categories. Since all those environmental targets are global, the company has to adopt robust strategies in different regions by considering the different needs of geographies and customers. In parallel with that, low carbon transition in products and product lines and sustainable transformation are the number one priorities to compete with these challenging targets.

Arçelik's 5-year mature green bond integrates projects from different countries and facilities which can support transformation to low carbon products and production activities. For the related green bond issuance, the eligible green projects are listed as[4]:

- Energy efficient products
- Eco-efficient and/or circular economy adapted products
- Energy efficiency in production
- Pollution prevention and control
- Sustainable water and wastewater management
- Renewable energy
- Green buildings

[5]The defined eligible criteria are the key source for Arçelik's environmental targets especially to decrease Scope 3 emissions which is equal to 98% of all emissions caused by the company.




**2018-21 Arçelik Green Bond Eligible Categories Number of Funded Projects**

[4] The detailed information on the use of proceeds is explained in the **Arçelik A.Ş. Green Financing Framework** which was published on May 2021.

[5] The category of "Green Buildings" is not funded for the fiscal years 2018-21, therefore, not included in the part of this Green Bond Allocation and Impact Report.

# Arçelik's Green Bond Portfolio and Green Eligible Categories

In 2021, Arçelik's green bond was issued with various sustainable projects in the portfolio equal to €350 million and eligible 385 projects equal to €189,8 million were allocated under the bond issuance among the fiscal years 2018-21.


**Energy efficient products**


**Eco-efficient and/or circular economy adapted products**


**Energy efficiency in production**


**Pollution prevention and control**


**Sustainable water and wastewater management**


**Renewable energy**

## Energy efficient Products

Energy efficient products are key the sources for Arçelik to decrease company's Scope 3 emissions in parallel with two different environmental targets. Arçelik supports both company's low carbon transition and consumers' well-being by providing financial savings via more energy efficient products. In 2021, 47% of Arçelik's turnover was from the energy-efficient products.

For the related category, there are listed projects below as examples for Arçelik's value generated products and systems:

**Dishwashers**.

- With the use of heat pump technology, a dishwasher with an 'A' energy class rating has been launched. These dishwashers consume around 47% less energy compared to dishwashers with an 'F' energy class rating.

**Washing Machines & Washer Dryers**

- AquaTech technology avoids long and high programs that wear out clothes and decrease energy consumption. A special blade sensing system with water jets in the drum sprays the detergent-water mixture directly on the laundry. AquaTech Plus washing machines consume 10% less energy than 'A' energy class machines.

### Tumble Dryers

- Dryers with heat pump technology with an 'A+++' class rating save 73% energy compared to 'C' class products and enable drying at lower temperatures. In addition to consuming less energy, this contribute to sustainability by extending the life of clothes.

### Refrigerators

- In 60 cm Nofrost Combi refrigerators, high energy-efficient products in the 'C' energy class consume 49% less energy compared to 'F' energy class products.

### Ovens

- All new ovens consist of 'A' and 'A+' energy class products. 'A+' energy class ovens consume 14% less energy than those in the 'A' energy class.

### TVs

- Eco Control is produced from 100% recycled plastic and offers the user the opportunity to easily select eco settings that minimize energy consumption.

**Energy Efficient Products KPI List**

| | | | |
|---|---|---|---|
| Funded amount allocated to the related projects | | **€ CapEx** | |
| | *2018* | | 2,963,542*[6] |
| | *2019* | | 42,132,323* |
| | *2020* | | 13,917,971* |
| | *2021* | | 46,202,525* |
| Funded amount allocated to the related projects | | **€ OpEx** | |
| | *2018* | | 4,621,634* |
| | *2019* | | 5,207,193* |
| | *2020* | | 3,353,208* |
| | *2021* | | 2,559,725* |
| Total share of green proceeds | | **%** | |
| | *2018* | | 100 |
| | *2019* | | 100 |
| | *2020* | | 100 |
| | *2021* | | 100 |
| Annual amount of GHG savings with the related projects **Scope 3 use phase of sold products** | | **$tCO_2e$/year** | |
| | *2018* | | 213,887 |
| | *2019* | | 163,385 |
| | *2020* | | 272,896 |
| | *2021* | | 443,445 |

[6] *Numbers are verified by PwC. Please see page 19 for details.

## Eco-efficient and/or circular economy adapted products

As well as energy efficiency, protection of natural resources and responsible use of raw materials are also critical components for Arçelik's products. Arçelik R&D teams develop innovative material reduction, recycled plastic, bio plastic and waste composites formulas to be used in products. In parallel with that, Arçelik has targets to increase recycled plastics and bio-material contents in the products to 40% and 5% by 2030, respectively.

For the related category, there are listed projects below as examples from 2021 for Arçelik's value generated products and systems:

### PET bottles

- Recycled PET bottles are used in washing machines, washer-dryers, tumble dryers, dishwashers and air conditioners. In 2021, Arçelik used approximately 50.5 million recycled pet bottles in washing machines and washer-dryer tubs and 4.8 million in Arçelik-LG air conditioners.

### Fish nets & Industrial Thread

- To prevent ghost fishing nets left in the seas and oceans, the company used 9 tons of recycled fishing nets and 233.6 tons of recycled industrial thread.

### WEEE Recycling Plants

- For Arçelik's operations, WEEE Recycling Plants play a key role in developing circular economy solutions. In 2021, fan parts of dishwashers were produced by recycling approximately 568 dishwasher baskets obtained from WEEE recycling plants.

### PE Packaging Waste

- Arçelik recycled polyethylene-based packaging waste generated during the transportation of components in the company's Refrigerator and Dishwasher plants. In 2,021.79 tons of PE packaging waste were used in dishwashers and refrigerator components.

### Recycled Plastic Contents

- Recycled plastic content has increased from 31% to 52% in Atak vacuum cleaners and from 17% to 52% in Jaguar vacuum cleaners compared to 2020 and approved as 42% in Jaguar vacuum cleaners.

### Bio-material Contents

- The BioFridge is made using both biobased polyurethane insulation material (Bio-Cool) and bio-composite raw materials that contain organic material such as soy and castor oil. The egg trays are made of 20% eggshell waste and 80% bio-based plastics made from organic resources such as corn starch and sugarcane, and the fan cover is produced with 100% bio-based plastics.

### Microplastic Prevention

- Microfiber filtration technology has been developed to prevent microplastics from entering the seas and oceans from wastewater pipes during the washing of petroleum-based textile products in washing machines. Developed within the scope of

FiberCatcher technology, this filter itself is made using 98% recycled plastic and contains up to 60 recycled PET bottles in its tubs.

## Sustainable Packaging

- Arçelik saved approximately 540,610 new trees from being cut down by using 31,800 tons of recycled cardboard for products packaging globally.
- In 2021, the company used 324 tons of 100% recycled and recyclable cardboard and 40 tons of molded pulp instead of EPS in the cooker, hood, small domestic appliances, and consumer electronics categories. To eliminate EPS with sustainable material options, work continues in all Arçelik's global factory networks, together with the central control of the sustainability and R&D team.
- The company used approximately 28 million recycled PET bottles in the major domestic appliance product packaging strips.

Besides projects aiming to use recycled materials and sustainable packaging practices, there are also projects which are aiming to reduce the material components used in the products. Between 2018-21 total of 1,956 tons of metal reduced in Electronics Plant while saving the resource amounts total of 46 tons with the project held in Tumble Dryer Plant and 83,873 tons of water was saved with the projects have been held in Dishwasher Plant and Central R&D.

**Eco-efficient and/or Circular Economy Adapted Products KPI List**

| | | | |
|---|---|---|---|
| Funded amount allocated to the related projects | | **€ CapEx** | |
| | *2018* | | 197,470*[7] |
| | *2019* | | 10,944,927* |
| | *2020* | | 9,565,696* |
| | *2021* | | 9,844,897* |
| Funded amount allocated to the related projects | | **€ OpEx** | |
| | *2018* | | 3,130,473* |
| | *2019* | | 6,545,155* |
| | *2020* | | 4,163,976* |
| | *2021* | | 2,448,753* |
| Total share of green proceeds | | **%** | |
| | *2018* | | 100 |
| | *2019* | | 100 |
| | *2020* | | 100 |
| | *2021* | | 100 |
| Annual amount of material reduced | | **ton/year** | |
| | *2018* | | 503 |
| | *2019* | | 1,062 |
| | *2020* | | 8,095 |
| | *2021* | | 19,891 |

[7] *Numbers are verified by PwC. Please see page 19 for details.

## Energy-efficiency in production

With energy-efficient production methods, Arçelik is able to save energy, reduce GHG emissions and minimize the environmental impacts of production processes. For this reason, Arçelik focuses on increasing efficiency with operational improvements, maintenance of production equipment, and especially by investing in innovative energy-efficient technologies. Within this scope, Arçelik implemented a total of 228 energy efficient projects in 2021 and approximately saved 63,000 GJ of energy. Thanks to this increase in efficiency, Arçelik prevented 5,514 tons of $CO_2$e emissions and achieved a financial savings of €773,932.

**Energy-efficiency in Production KPI List**

| | | | |
|---|---|---|---|
| Funded amount allocated to the related projects | | **€ CapEx** | |
| | *2018* | | 6,960,866*[8] |
| | *2019* | | 2,787,746* |
| | *2020* | | 2,311,454* |
| | *2021* | | 3,165,822* |
| Funded amount allocated to the related projects | | **€ OpEx** | |
| | *2018* | | 16,387* |
| | *2019* | | 42,173* |
| | *2020* | | 34,433* |
| | *2021* | | 20,947* |
| Total share of green proceeds | | **%** | |
| | *2018* | | 100 |
| | *2019* | | 100 |
| | *2020* | | 100 |
| | *2021* | | 100 |
| Annual amount of energy savings with the related projects | | **kWh/year** | |
| | *2018* | | 12,963,744 |
| | *2019* | | 2,402,334 |
| | *2020* | | 3,450,690 |
| | *2021* | | 949,705 |
| Annual amount of GHG savings with the related projects **Scope 2** | | **$tCO_2e$/year** | |
| | *2018* | | 5,273 |
| | *2019* | | 1,026 |
| | *2020* | | 2,210 |
| | *2021* | | 438 |

[8] *Numbers are verified by PwC. Please see page 19 for details.

## Pollution prevention and control

To meet the company's Near Zero Waste Target, Arçelik uses resources more efficiently, prevents and reduces waste resulting from the company's operations and improves the effectiveness of separating waste as its source. Green bond eligible projects in this category aims to increase waste reduction rate or recycling and process improvement studies to increase the annual savings of relevant resource amounts.

In addition, Arçelik collects old products from the market regardless of their brand and replaces them with new, energy efficient ones through Arçelik's widespread network of authorized dealers and service shops. The products collected from the market are then recycled in Arçelik's two Waste Electrical and Electronic Equipment (WEEE) Recycling Facilities in Turkey. With the help of our green bond issuance, annual efficiency of the WEEE recycled ratio was increased by 7% and resulted from 92% to 99% in Bolu Cooking Appliances Plant.

In addition to the table below, total of 313 tons of plastic was reduced with the projects in Tumble Dryer and Washing Machine Plants, 36 tons of carrier bag and 1,360 tons of cartoon were reduced with the help of the projects held in Electronics Plants under the scope of green bond issuance. Finally, total of 46 tons of saving of resource amounts was provided with the project in Tumble Dryer Plant.

**Pollution Prevention and Control KPI List**

| | | | |
|---|---|---|---|
| Funded amount allocated to the related projects | | **€ CapEx** | |
| | *2018* | | 93,496*[9] |
| | *2019* | | 1,041,623* |
| | *2020* | | 1,397,418* |
| | *2021* | | 823,518* |
| Funded amount allocated to the related projects | | **€ OpEx** | |
| | *2018* | | 0* |
| | *2019* | | 0* |
| | *2020* | | 23,000* |
| | *2021* | | 18,000* |
| Total share of green proceeds | | **%** | |
| | *2018* | | 100 |
| | *2019* | | 100 |
| | *2020* | | 100 |
| | *2021* | | 100 |
| Annual amount of waste prevented with the related projects | | **ton/year** | |
| | *2018* | | 9 |
| | *2019* | | 1 |
| | *2020* | | 1,178 |
| | *2021* | | 1,199 |

[9] *Numbers are verified by PwC. Please see page 19 for details.

## Sustainable water and wastewater management

The efficient use of water resources is one of the most significant components for Arçelik's business value since Arçelik is also under the risk of water stress. According to the S&P Trucost ESG, WRI Aquaduct and Arçelik internal expertise mutual methodology, Arçelik's overall physical risk score is moderate, main risk item being water stress. India, Romania, Turkey sites are prone to high water stress risk. Based on Trucost analysis, Arçelik's suppliers' main physical risks are related to water stress as well. Therefore, Arçelik has to consider water stress risks in water stress countries of Arçelik and the company's suppliers' operations. In addition, the physical risk assessment carried out by Trucost also points out the risks related to high heatwave/coldwave/flood risks.

For this reason, Arçelik aims to increase water efficiency and reuse that contribute to protecting rapidly depleting freshwater resources. In parallel with that, Arçelik has reduced the total amount of water withdrawal in Arçelik Turkey manufacturing plants by 49% when compared with 2011 and has a target to reduce water withdrawal in production to 45% per product produced by 2030. Arçelik also aims to increase the water recycling ratio to 70% in all production plants by 2030 aiming to achieve closed loop water system in production. At Arçelik, reducing the company's consumers' water footprint as well as that of Arçelik operations is one of the company's top priorities. To decrease our water withdrawal in all Arçelik manufacturing plants, Arçelik performs water efficiency, water recycling and reuse projects. Recently, Arçelik joined to the CEO Water Mandate which is a UN Global Compact Initiative commitment platform for business leaders and learners to advance water stewardship by committing to take actions in the areas of direct operations, supply chain and watershed management, collective action, public policy, community engagement and transparency.

**Sustainable Water and Wastewater Management KPI List**

| | | | |
|---|---|---|---|
| Funded amount allocated to the related projects: ***2018-21*** | | **€ CapEx** | |
| | ***2018*** | | 284*[10] |
| | ***2019*** | | 498,462* |
| | ***2020*** | | 108,368* |
| | ***2021*** | | 1,098,236* |
| Funded amount allocated to the related projects: ***2018-21*** | | **€ OpEx** | |
| | ***2018*** | | 2,500* |
| | ***2019*** | | 8,250* |
| | ***2020*** | | 5,750* |
| | ***2021*** | | 0* |
| Total share of green proceeds | | % | |
| | ***2018*** | | 100 |
| | ***2019*** | | 100 |
| | ***2020*** | | 100 |
| | ***2021*** | | 100 |
| Annual amount of wastewater recycled with the related projects | | **$m^3$/year** | |
| | ***2018*** | | 0 |
| | ***2019*** | | 29,879 |
| | ***2020*** | | 184 |
| | ***2021*** | | 11,190 |
| Annual volume of rainwater harvested with the related projects | | **$m^3$/year** | |
| | ***2018*** | | 0 |
| | ***2019*** | | 8,350 |
| | ***2020*** | | 53,152 |
| | ***2021*** | | 200 |

[10] *Numbers are verified by PwC. Please see page 19 for details.

## Renewable energy

Since the benefits of renewable energy technologies are inevitable especially to improve sustainable production processes, Arçelik has various targets and projects related with the renewable energy to decrease the company's GHG emissions and to support transition to low carbon business models. With this approach, Arçelik has a target to make at least $50 million investment in renewable energy and energy efficiency in 2030. Besides, the company committed to establish renewable energy systems with 50 MW capacity by 2030.

Arçelik has 3.6 MW solar plant capacity as of 2021 with photovoltaic panels, concentrated solar power and a solar wall in the Arctic Ulmi Washing Machine, Eskişehir Refrigerator, Çayırova Washing Machine and Defy Jacobs factories. Through this way, Arçelik generated 3,193 GJ of electricity in 2021, with 930 kWp installed capacity of photovoltaics in the Arctic Ulmi Washing Machine factory and prevented 585 tons of CO2e GHG emissions. In addition, Arçelik purchased 206,047,793 kWh of green electricity for Turkey manufacturing plants under the green bond issuance in 2021 which has helped to reduce 89,239 tons of Scope 2 emissions.

**Renewable Energy KPI List**

| | | | |
|---|---|---|---|
| Funded amount allocated to the related projects: ***2018-21*** | | **€ CapEx** | |
| | ***2018*** | | 0*[11] |
| | ***2019*** | | 1,493,823* |
| | ***2020*** | | 4,898* |
| | ***2021*** | | 0* |
| Funded amount allocated to the related projects: ***2018-21*** | | **€ OpEx** | |
| | ***2018*** | | 0* |
| | ***2019*** | | 0* |
| | ***2020*** | | 0* |
| | ***2021*** | | 87,657* |
| Total share of green proceeds | | **%** | |
| | ***2018*** | | 100 |
| | ***2019*** | | 100 |
| | ***2020*** | | 100 |
| | ***2021*** | | 100 |
| Annual amount of energy production | | **kWh/year** | |
| | ***2018*** | | 0 |
| | ***2019*** | | 734,868 |
| | ***2020*** | | 106,392 |
| | ***2021*** | | 0 |
| Annual amount of GHG savings with the related projects | | **$tCO_2e$/year** | |
| | ***2018*** | | 0 |
| | ***2019*** | | 237 |
| | ***2020*** | | 25 |
| | ***2021*** | | 113,837[12] |

[11] *Numbers are verified by PwC. Please see page 19 for details.

[12] It was also purchased for green electricity in 2019 and 2020, however, only 2021 GHG saving value was calculated in Arçelik Green Bond Allocation and Impact Report.

# Arçelik Green Bond Issuance Consolidated Tables - Allocation

## Consolidated allocations

| € Total Capital Expenditure Investment | | | | | |
|---|---|---|---|---|---|
| **Categories** | **2018** | **2019** | **2020** | **2021** | **Total** |
| Energy Efficient Products | 2,963,542*[13] | 42,132,323* | 13,917,971* | 46,202,525* | **105,216,362*** |
| Eco-efficient and/or Circular Economy Adapted Products | 197,470* | 10,944,927* | 9,565,696* | 9,844,897* | **30,552,990*** |
| Energy Efficiency- Production | 6,960,866* | 2,787,746* | 2,311,454* | 3,165,822* | **15,225,888*** |
| Pollution Prevention and Control | 93.496* | 1,041,623* | 1,397,418* | 823,518* | **3,356,056*** |
| Sustainable Water and Wastewater Management | 284* | 498,462* | 108,368* | 1,098,236* | **1,705,351*** |
| Renewable Energy | 0* | 1,493,823* | 4,898* | 0* | **1,498,721*** |
| **Total** | **10,215,659*** | **58,898,903*** | **27,305,807*** | **61,134,999*** | **157,555,367*** |
| **€ Total Operating Expenses Investment** | | | | | |
| **Categories** | **2018** | **2019** | **2020** | **2021** | **Total** |
| Energy Efficient Products | 4,621,634* | 5,207,193* | 3,353,208* | 2,559,725* | **15,741,760*** |
| Eco-efficient and/or Circular Economy Adapted Products | 3,130,473* | 6,545,155* | 4,163,976* | 2,448,753* | **16,288,358*** |
| Energy Efficiency- Production | 16.387* | 42.173* | 34.433* | 20,947* | **113,940*** |
| Pollution Prevention and Control | 0* | 0* | 23,000* | 18,000* | **41,000*** |
| Sustainable Water and Wastewater Management | 2,500* | 8,250* | 5,750* | 0* | **16,500*** |
| Renewable Energy | 0* | 0* | 0* | 87,657* | **87,657*** |
| **Total** | **7,770,994*** | **11,802,771*** | **7,850,367*** | **5,135,082*** | **32,289,215*** |
| **Grand Total:** | **17,986,653*** | **70,701,674*** | **34,886,174*** | **66,270,081*** | **189,844,582*** |

[13] *Numbers are verified by PwC. Please see page 19 for details.

# Arçelik Green Bond Issuance Consolidated Tables - Impact

## Consolidated KPI

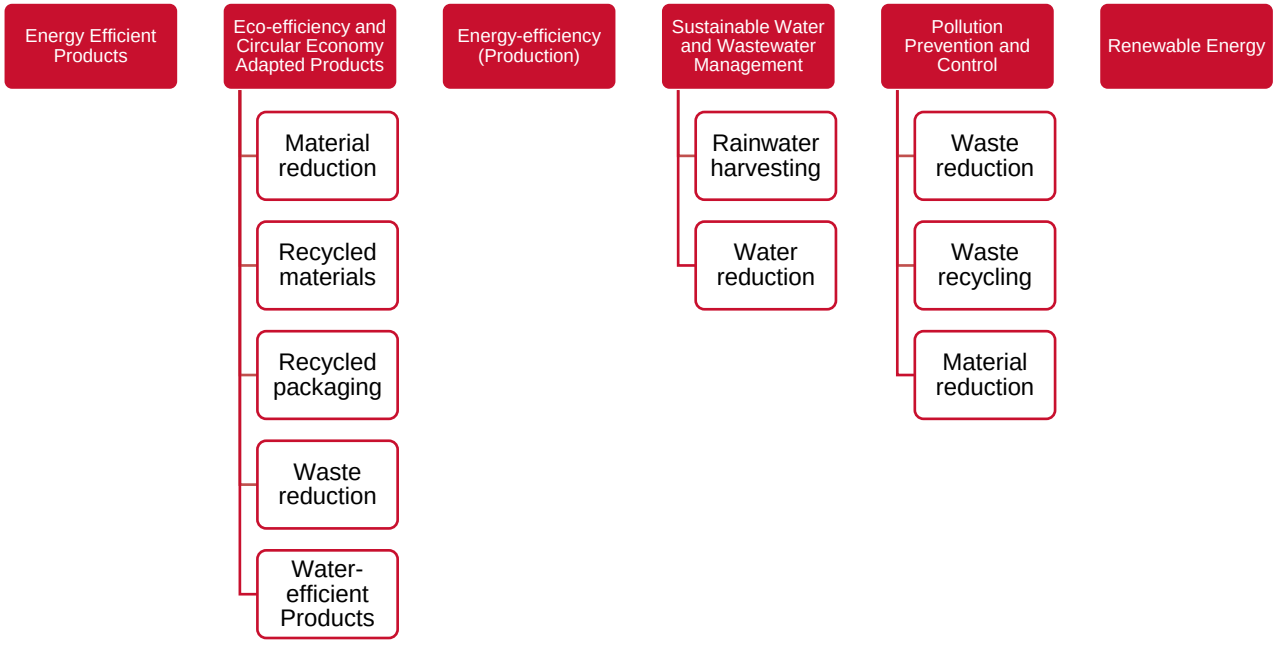
**Key Performance Indicator (KPI) Distribution**

| Categories | 2018 | 2019 | 2020 | 2021 | Total |
|---|---|---|---|---|---|
| **Energy Efficient Products** | | | | | |
| **KPI:** | | | | | |
| ***Annual amount of GHG savings- Scope 3 (ton/year)*** | 213,887 | 163,385 | 272,896 | 443,445 | **1,093,613** |
| **Eco-efficient and/or Circular Economy Adapted Products** | | | | | |
| **KPIs:** | | | | | |
| ***Annual amount of material reduced (ton/year)*** | 503 | 1,062 | 8,095 | 19,891 | **29,551** |
| **Energy Efficiency- Production** | | | | | |
| **KPIs:** | | | | | |
| ***Annual amount of energy savings (kWhYear)*** | 12,963,744 | 2,402,334 | 3,450,690 | 949,705 | **19,766,473** |
| ***Annual amount of GHG savings – Scope 2 (ton/year)*** | 5,273 | 1,026 | 2,210 | 438 | **8,947** |
| **Pollution Prevention and Control** | | | | | |
| **KPI:** | | | | | |
| ***Annual amount of waste prevented (ton/year)*** | 9 | 1 | 1,178 | 1,199 | **2,387** |
| **Sustainable Water and Wastewater Management** | | | | | |
| **KPIs:** | | | | | |
| ***Annual amount of wastewater recycled (m3/year)*** | 0 | 29,879 | 184 | 11,190 | **41,523** |
| ***Annual volume of rainwater harvested (m3/year)*** | 0 | 8,350 | 53,152 | 200 | **61,702** |
| **Renewable Energy** | | | | | |
| **KPIs:** | | | | | |
| ***Annual amount of energy production (kWh/year)*** | 0 | 734,868 | 106,392 | 0 | **841,260** |
| ***Annual amount of GHG savings- Scope 2 (ton/year)*** | 0 | 237 | 25 | 113,837 | **114,099** |

# Calculation Methodology for the Defined KPIs

To calculate the KPI values of different eligible green bond projects, Arçelik Sustainability, Environment, Energy and Regulation Teams have worked together to define the best KPI formula to find the right solution.

### Categories of the projects which were included in the KPI calculation:




## Energy efficient products

KPIs were decided by considering the total improvement of energy efficient products between 2018-21. This improvement was considered as both energy saving (kWh) and $CO_2e$ reduction. Annual amount of $CO_2e$ reduction/avoidance was calculated by considering the Scope 3 formula which includes the expected life time of the product, kWh difference between the old and new versions, the number of expected cycles during a year (if any), world electricity emission factor (0,4809 $kgCO_2/kWh$), total quantity of the product during a year, greenhouse warming potential (GWP), if any and ton conversion to calculate the finalized GHG value.

Expected lifetime is 7 years for SDAs and 10 years for white goods in general. While making calculations, expected cycles are also considered in the multiplying formula for cooking appliances (110), washing machines (220), dishwashers (280) and TVs (1,400 hours). All values were calculated as tons for energy efficient products.

## Eco-efficiency and circular economy adapted products

KPIs were decided by considering the products' improvement from the side of material or plastic reduction, water efficiency and recycled packaging. For this reason, it was questioned the amount of plastic reduced, the amount of recycled material used in the products (i.e. bio-composite materials, recycled materials instead of virgin materials), the amount of metal reduced, and the total amount of recycled packaging practices. For the years 2018-21, the biggest impact was from the material reduction projects. Some projects were questioned if there is any waste reduction with the new models or any water-efficiency is provided when compared with the old version.

The KPIs were calculated by considering the old and the new capabilities of the products. For instance, it was considered the product's material usage before the application of the new investment in a specific investment year (i.e. the value must be belonging to 2018, if there is an investment for the green bond in 2018) and the same product's material usage after the improvement project was applied. The difference was accepted as "efficiency" and reported as material reduction impact in the Allocation and Impact Report. All values were calculated as tons for eco-efficiency and circular economy adapted products.

## Energy efficiency – Production

KPIs were decided by considering the overall improvement in energy efficiency with the projects which have been developed in manufacturing areas.

The KPIs were calculated by considering the old and new energy efficiency levels. For instance, it was considered the energy efficiency level of a factory in a specific investment year (i.e. the value must be belonging to 2019, if there is an investment for the green bond in 2019) and the new energy efficiency level after the investment was realized. The difference (kWh) was defined as "efficiency" and listed in the Allocation and Impact Report. All values were calculated as kWh (converted to MWh) and tons for energy efficiency projects.

Since energy efficiency projects are related with Scope 2 emissions, the new efficiency levels were converted into $CO_2e$ values by using the emission factor (EF) belonging to different countries.

The emission factor for the electricity was decided based on the IEA's official EFs and shown as below:

| | *$tCO2_eq/MWh$* | | | |
|---|---|---|---|---|
| | ***2018*** | ***2019*** | ***2020*** | ***2021*** |
| Turkey | 0,466 | 0,4629 | 0,4661 | 0,4331 |
| South Africa | 0,95 | 0,9021 | 0,8958 | 0,9366 |
| Romania | 0,3253 | 0,3439 | 0,3349 | 0,3452 |
| Russia | 0,3596 | 0,3513 | 0,3569 | 0,375 |
| Pakistan | 0,3918 | 0,4169 | 0,3929 | 0,3509 |
| Thailand | 0,4939 | 0,4895 | 0,4847 | 0,4655 |

| | *kgCO2eq/kWh* | | | |
|---|---|---|---|---|
| | ***2018*** | ***2019*** | ***2020*** | ***2021*** |
| World | 0,49 | 0,4861 | 0,4809 | 0,477 |

## Sustainable water and wastewater management

KPIs were decided by considering the projects in the manufacturing areas which can provide wastewater recycling and rainwater harvesting. For this reason, main aim was to understand, if the project was able to recycle wastewater when compared with the old version or if the project was able to harvest rainwater in the new versions.

The KPIs were calculated by considering the old and new water capabilities of the specific projects. For instance, it was considered the wastewater recycling before the modernization of the system in a specific investment year (i.e. the value must be belonging to 2018, if there is an investment for the green bond in 2018) and the new volume of wastewater recycling after the project was realized. The difference was defined as “efficiency” and listed in the Allocation and Impact Report. All volumes were calculated as $m^3$ for water-related projects.

## Pollution and prevention control

KPIs were decided by considering the projects in the manufacturing areas which can provide waste or material reduction and waste recycling.

The KPIs were calculated by considering the old and new waste reduction or recycling capabilities of the specific projects. For instance, it was considered the waste amount before new transition was applied in a specific investment year (i.e. the value must be belonging to 2018, if there is an investment for the green bond in 2018) and the new waste amount after the project was completed. The difference was defined as “efficiency” and listed in the Allocation and Impact Report. All volumes were calculated as tons for waste related projects.

## Renewable energy

This sub-category’s KPIs were decided by considering the renewable energy projects (Solar PV investments) which were planned between 2018-21 in different locations. The main aim was to understand how much (MW) electricity was produced with those new solar PV investments and how many tons of $CO_2e$ reduction was provided when the electricity value was converted to emission data with EF of the countries listed above.

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**Limited Assurance Report**
**To Board of Directors of Arçelik A.Ş.**

We have been engaged by the Board of Directors of Arçelik A.Ş. ("Arçelik A.Ş." or "Company") to perform an independent limited assurance engagement in respect of the Selected Allocation Report Information ("Selected Information") stated in Arçelik A.Ş. Green Bond Allocation and Impact Report June 2022 (the "June 2022 Allocation and Impact Report") for the year ended 31 December 2021 and listed below.

**Selected Information**

The scope of the Selected Information for the year ended 31 December 2021, which is subject to our independent limited assurance work, set out in the June 2022 Allocation and Impact Report on pages of 7, 9, 10, 11, 12, 13, 14 and the scope of indicators marked with ("*") for the year ended 31 December 2021 is summarised below:

- Energy efficient products
- Eco-efficient and/or circular economy adapted products
- Energy efficiency in production
- Pollution prevention and control
- Sustainable water and wastewater management
- Renewable energy

Our independent assurance report has been prepared only for the year ended 31 December 2021, and we have not performed any procedures with respect to any information other than Selected Information marked with an ("*") in the June 2022 Allocation and Impact Report, and therefore no do not express any conclusion thereon.

**Criteria**

While preparing Selected Information, the company used the principles in the June 2022 Allocation and Impact Report - Reporting Principles ("Reporting Principles") section on page 22, 23, 24 of the June 2022 Allocation and Impact Report.

**The Company's Responsibility**

The Company is responsible for the content of the June 2022 Allocation and Impact Report and the preparation of the Selected Information in accordance with the Reporting Principles. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of Selected Information that is free from material misstatement, whether due to fraud or error.

*PwC Bağımsız Denetim ve Serbest Muhasebeci Mali Müşavirlik A.Ş.*
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**Inherent Limitations**

Non-financial performance information is subject to more inherent limitations than financial information, given the characteristics of the subject matter and the methods used for determining such information. The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measures and measurement techniques and can affect comparability between entities. The precision of different measurement techniques may also vary. Furthermore, the nature and methods used to determine such information, as well as the measurement criteria and the precision thereof, may change over time. It is important to read the Selected Information in the context of the Reporting Principles.

**Our Independence and Quality Control**

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

Our firm applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

**Our Responsibility**

Our responsibility is to form a conclusion, based on limited assurance procedures, on whether anything has come to our attention that causes us to believe that the Selected Information has not been properly prepared in all material respects in accordance with the Reporting Principles. We conducted our limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised), Assurance Engagements other than Audits or Reviews of Historical Financial Information ("ISAE 3000") issued by the International Auditing and Assurance Standards Board.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement under ISAE 3000. Consequently, the nature, timing and extent of procedures for gathering sufficient appropriate evidence are deliberately limited relative to a reasonable assurance engagement.

The procedures we performed were based on our professional judgment and included inquiries, observation of processes performed, inspection of documents, analytical procedures, evaluating the appropriateness of quantification methods and reporting policies, and agreeing or reconciling with underlying records.

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Given the circumstances of the engagement, in performing the procedures listed above we:

- made inquiries of the persons responsible for the Selected Information;
- understood the process for collecting and reporting the Selected Information. This included analysing the key processes and controls for managing and reporting the Selected Information;
- evaluated the source data used to prepare the Selected Information and re-performed selected examples of calculation;
- performed limited substantive testing on a selective basis of the preparation and collation of the Selected Information prepared by the Company and;
- undertook analytical procedures over the reported data.

**Limited Assurance Conclusion**

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Company's Selected Information for the year ended 31 December 2021, is not properly prepared, in all material respects, in accordance with the Reporting Principles.

**Restriction of Use**

This report, including the conclusion, has been prepared for the Directors of the Arçelik A.Ş. as a body, to assist the Directors in reporting Arçelik A.Ş.'s performance and activities related to the Selected Information. We permit the disclosure of this report within the June 2022 Allocation and Impact Report for the year ended 31 December 2021, to enable the Directors to demonstrate they have discharged their governance responsibilities by commissioning a limited assurance report in connection with the Selected Information. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Directors of Arçelik A.Ş. as a body and Arçelik A.Ş. for our work or this report save where terms are expressly agreed and with our prior consent in writing.

PwC Bağımsız Denetim ve
Serbest Muhasebeci Mali Müşavirlik A.Ş.

Sertu Talı, SMMM
Partner

İstanbul, 3 June 2022

## Appendix 1: June 2022 Allocation and Impact Report - Reporting Principles

### About This Report

This document provides information on the data preparation and reporting methodologies of indicators within the scope of the limited assurance in the Arçelik A.Ş. ("Company") Arçelik A.Ş. Green Bond Allocation and Impact Report June 2022 ("the "June 2022 Allocation and Impact Report") The calculations presented in the report were carried out on the basis of the Company's internally developed methodology. The indicators of green bond allocation include the total amount of investment costs allocated to defined project categories.

The data included in this document covers the 1 January 2018-31 December 2021 and the relevant Turkey and Global operations of the Company.

Arçelik issued the first-ever international corporate green bond in Turkey with €350 million-and 5-year maturity. Arçelik A.Ş.'s green bond issuance was designed to collect projects from different countries that can help climate friendly transformation such as energy and water efficiency, circular economy, preventing pollution and wastewater, supporting renewable energy, and increasing the number of eco-friendly products.

### General Reporting Principles

In preparing this guidance document, consideration has been given to following principles:

- Information Preparation - to highlight to users of the information the primary principles of relevance and reliability of information; and
- Information Reporting - to highlight the primary principles of comparability / consistency with other data including prior year and understandability / transparency providing clarity to users.

### Scope of Reporting

Arçelik's 5-year green bond integrates projects from different countries and facilities which can support transformation to low carbon products and production activities. According to Arçelik A.Ş. Green Financing Framework 2021 for the related green bond issuance, the eligible green projects are listed as:

- **Energy efficient products**: Energy efficient products are the key sources for Arçelik to decrease company's Scope 3 emissions in parallel with two different environmental targets.
- **Eco-efficient and/or circular economy adapted products:** As well as protection of natural resources and responsible use of raw materials are also critical components for Arçelik's products.
- **Energy efficiency in production:** With energy-efficient production methods, Arçelik is able to save energy, reduce GHG emissions and minimize the environmental impacts of production processes.
- **Pollution prevention and control:** To meet the company's Near Zero Waste Target, Arçelik uses resources more efficiently, prevents and reduces waste resulting from the company's operations and improves the effectiveness of separating waste as its source.
- **Sustainable water and wastewater management:** The efficient use of water resources is one of the most significant components for Arçelik's business value.
- **Renewable energy:** Renewable energy project to decrease the company's GHG emissions and to support transition to low carbon business models.

Arçelik has obtained a Second Party Opinion from Sustainalytics, an external verifier, confirming the alignment of Arçelik' Green Financing Framework with ICMA GBP and LMA GLP. (https://www.arcelikglobal.com/media/6293/arcelik-as-green-financing-framework-second-party-opinion_1705.pdf )

**Data Preparation**

Arçelik set up a Green Financing Committee which is responsible for the evaluation and selection of the projects to be financed and/or refinanced through the proceeds of Green Financing Instruments. The Green Financing Committee is headed by the CFO and includes the Finance and Enterprise Risk Director, Quality, Sustainability and Corporate Affairs Director, Treasury Manager, and Sustainability Manager. If required, representatives from other business units may join on a case-by-case basis.

The Green Financing Committee verify the compliance of the selected pool of eligible projects with the eligibility criteria defined in this Framework and responsible for approving allocations of net proceeds on an annual basis. Accordingly, Green Financing Committee consolidated the amounts being allocated to following categories:

- **Energy efficient products**: It represents expenditures related to R&D, test equipment and other developments.
- **Eco-efficient and/or circular economy adapted products:** It represents expenditures (incl. R&D and procurement of materials) related to achieving substantial environmental improvements in Arçelik's products, in areas such as packaging, material reduction, usage of recycled and biomaterials as well as chemical reduction in products.
- **Energy efficiency in production:** It represents expenditures related to energy efficiency improvements in Arçelik's operations (incl. in warehouses, factories and administrative buildings)
- **Pollution prevention and control:** It represents expenditures (including R&D) related to waste prevention, waste reduction in production, process improvements in line with Arçelik's Near Zero Waste target, and GHG management in Arçelik's operations.
- **Sustainable water and wastewater management:** It represents expenditures (incl. R&D) related to projects that significantly increase water efficiency, water recycling and water reduction in Arçelik's production operations.
- **Renewable energy:** It represents expenditures related to investments in establishing renewable energy systems, as well as procurement of renewable energy.

| Categories | 2018 (€) | 2019 (€) | 2020 (€) | 2021 (€) | Description |
|---|---|---|---|---|---|
| Energy Efficient Products | 2,963,542 | 42,132,323 | 13,917,971 | 46,202,525 | The amount represents the capital expenditures, supported by the invoices, regarding Energy Efficiency Products, as described above for each respective year |
| Eco-Efficient and/or Circular Economy Adapted Products | 197,470 | 10,944,927 | 9,565,696 | 9,844,897 | The amount represents the capital expenditures, supported by the invoices, regarding Eco-Efficient and/or Circular Economy Adapted Products, as described above for each respective year |
| Energy Efficiency in Production | 6,960,866 | 2,787,746 | 2,311,454 | 3,165,822 | The amount represents the capital expenditures, supported by the invoices, regarding Energy Efficiency in Production, as described above for each respective year |
| Pollution Prevention and Control | 93,496 | 1,041,623 | 1,397,418 | 823,518 | The amount represents the capital expenditures, supported by the invoices, regarding Pollution Prevention and Control, as described above for each respective year |
| Sustainable Water and Wastewater Management | 284 | 498,462 | 108,368 | 1,098,236 | The amount represents the capital expenditures, supported by the invoices, regarding Sustainable Water and Wastewater Management, as described above for each respective year |
| Renewable Energy | 0 | 1,493,823 | 4,898 | 0 | The amount represents the capital expenditures, supported by the invoices, regarding Renewable Energy, as described above for each respective year |

| Categories | 2018 (€) | 2019 (€) | 2020 (€) | 2021 (€) | Description |
|---|---|---|---|---|---|
| Energy Efficient Products | 4,621,634 | 5,207,193 | 3,353,208 | 2,559,725 | The amount represents the operational expenditures, supported by the invoices, regarding Energy Efficiency Products, as described above for each respective year |
| Eco-Efficient and/or Circular Economy Adapted Products | 3,130,473 | 6,545,155 | 4,163,976 | 2,448,753 | The amount represents the operational expenditures, supported by the invoices, regarding Eco-Efficient and/or Circular Economy Adapted Products, as described above for each respective year |
| Energy Efficiency in Production | 16,387 | 42,173 | 34,433 | 20,947 | The amount represents the operational expenditures, supported by the invoices, regarding Energy Efficiency in Production, as described above for each respective year |
| Pollution Prevention and Control | 0 | 0 | 23,000 | 18,000 | The amount represents the operational expenditures, supported by the invoices, regarding Pollution Prevention and Control, as described above for each respective year |
| Sustainable Water and Wastewater Management | 2,500 | 8,250 | 5,750 | 0 | The amount represents the operational expenditures, supported by the invoices, regarding Sustainable Water and Wastewater Management, as described above for each respective year |
| Renewable Energy | 0 | 0 | 0 | 87,657 | The amount represents the operational expenditures, supported by the invoices, regarding Renewable Energy, as described above for each respective year |