

## **Assurance Report To the Top Management of Arçelik A.Ş.**

### **Executive Summary**

We, as being professional certification body under China Certification & Inspection Group (CCIC) approved by State General Administration for Quality Supervision and Inspection and Quarantine and Certification and Accreditation Administration of the People's Republic of China, have performed an independent verification audit in respect of Selected Data submitted by BEKO Electrical Appliances Co. Ltd., Plant of Arçelik A.Ş. located in People's Republic of China.

The Selected Data of the Carbon Emissions which refer to the year ended 31.12.2017, detailed in Annex 1 has been verified with reasonable assurance.

### **Respective Responsibilities**

It is the responsibility of the top management of Arçelik A.Ş to collect and prepare the necessary data for verification review with high accuracy. The top management of Arçelik A.Ş is also responsible for the content of the Sustainability Reports which refers to the Selected Data in accordance with the criteria set out in Annex 1.

Principles of the verification service that we perform are as follows:

- Impartiality
- Competence
- Factual approach to decision making
- Openness
- Confidentiality

Our verification audit based on reasonable assurance procedures to check whether the Greenhouse Gas assertion is materially correct and the Greenhouse Gas data and information submitted to our verification team is prepared in all material respects in accordance with Annex 1.

The assurance engagement performed is fully in compliance with the applicable independence and competency requirements as laid down in ISO14064-3:2006 Specification with Guidance for the Validation and the Verification of Greenhouse Gas Assertions published by the International Organization for Standardization.



This report, including the Opinion Statement, has been prepared for the top managers of Arçelik A.Ş, to assist their Sustainability Reports referring to the Arçelik A.Ş's carbon emission monitoring and control performance.

For the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the top managers of Arçelik A.Ş for our verification audit or this assurance report.

### **Methodology Used for the Provision of Audit**

We conducted this reasonable assurance engagement in accordance with ISO14064-1:2006 Specification with Guidance at the Organization Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals published by ISO (International Organization for Standardization).

A reasonable assurance engagement provides a reasonable but not absolute level of assurance that Arçelik A.Ş's Greenhouse Gas assertion is materially correct under ISO 14064-1:2006. In a reasonable assurance work, duration and extent of the procedures for gathering sufficient appropriate evidence are reasonably more than a limited assurance engagement.

To perform this assurance work, we have visited BEKO Electrical Appliances Co. Ltd. Plant and checked all information submitted by BEKO Electrical Appliances Co. Ltd. Plant.

Our reasonable assurance procedures require from the verification team to assess the followings:

- a) Inventory design, scope & boundary,
- b) Specific Greenhouse Gas (GHG) activity and technology,
- c) Identification and selection of GHG sources, sinks or reservoirs,
- d) Quantification, monitoring and reporting, including relevant technical and sector issues,
- e) Situations that may affect the materiality of the GHG assertion, including typical and atypical operating conditions.

The verifier or verification team has expertise to evaluate the implications of financial, operational, contractual or other agreements that may affect organization boundaries, including any legal requirements related to the GHG assertion.

### **Restrictions**

The absence of a manual prepared by the national authority has lead both parties to have some assumptions especially related to the grid emission factors and some measurement and calculation techniques which can result in materially different calculations and can impact the comparability. Therefore the accuracy of different calculations may also vary from company to company in China. Furthermore, the nature and the methods used to determine such

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information, as well as the measurement criteria and the accuracy thereof, may change overtime. The methodology and references given for the Selected Data are documented in the context of Annex 1.

### Opinion Statement

Based on the results of the verification audit we delivered according to our procedures, the Greenhouse Gas assertion of BEKO Electrical Appliances Co. Ltd. Plant reported in their Sustainability Reports is materially correct and is a fair representation of the data and information and is prepared in accordance with the related international standard on Greenhouse Gas quantification, monitoring and reporting and to relevant national standards or practices available at the time verification audit performed.

Signature  
Name  
Title  
Company



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## **Annex 1**

### **Arçelik A.Ş. BEKO Electrical Appliances Co. Ltd. Plant Greenhouse Gas Emissions Inventory Summary Report, 2017**

#### **General Principles and Scope**

BEKO Electrical Appliances Co. Ltd. Plant calculated the greenhouse gas emissions sourced by its activities according to “ISO 14064-1: 2006 Greenhouse Gases, Part 1 - Specification with Guidance at the Organization Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals Standard” and shares with all its shareholders via this report.

This report is the summary of BEKO Electrical Appliances Co. Ltd. Plant’s Greenhouse Gas (GHG) Emission Report 2017, including the general principles of the calculation methodologies and the GHG management.

This inventory includes greenhouse gas emissions sourced by BEKO Electrical Appliances Co. Ltd. Plant’s in China between 01.01.2017 - 31.12.2018.

The basis year for BEKO Electrical Appliances Co. Ltd. Plant’s Greenhouse Gas Emissions Inventory is 2017 year.

Arçelik A.Ş. documented the greenhouse gas emission inventory management methodology into its "GCP-16344 Greenhouse Gas Management System Procedure".

#### **Greenhouse Gas Emissions Inventory Boundaries**

Arçelik A.Ş. adopted control approach into its Greenhouse Gas Emissions Inventory, 2017.

The boundaries of the BEKO Electrical Appliances Plant’s Greenhouse Gas Inventory are as follows: Design, production, sale and service of household washing machines and related management activities

#### **Greenhouse Gas Emissions and Activity Boundaries**

Arçelik A.Ş.'s greenhouse gas emissions are in 3 categories:

- ✓ Direct greenhouse gas emissions,
- ✓ Indirect energy greenhouse gas emissions,
- ✓ Other indirect greenhouse gas emissions.

Direct greenhouse gas emissions are within the scope of Scope 1, energy indirect greenhouse gas emissions are within the scope of Scope 2 and other indirect greenhouse gas emissions are within the scope of Scope 3. Scope 1 and Scope 2 emissions are under the financial and administrative control of Arçelik A.Ş. Scope 3 emissions are not under financial and administrative control of Arçelik A.Ş., thus the Scope 3 emissions not included in this greenhouse gas emissions inventory.

- ✓ *Direct Greenhouse Gas Emissions:*

Arçelik A.Ş.'s direct greenhouse gas emissions are in three categories:

- Greenhouse gas emissions sourced by the stationary combustion,



- Greenhouse gas emissions sourced by the mobile combustion,
- Other direct greenhouse gas emissions.

BEKO Electrical Appliances Co. Ltd. Plant's direct emission resources are; natural gas, diesel, LPG, petrol, refrigerants.

✓ *Energy Indirect Greenhouse Gas Emissions:*

BEKO Electrical Appliances Co. Ltd. Plant's indirect emission resource is electricity.

✓ *Other Indirect Greenhouse Gas Emissions:*

Other greenhouse gas emission resources are within the scope of Scope 3 which are not under the financial and administrative control of Arçelik A.Ş.

Arçelik A.Ş.'s other greenhouse gas emissions are personnel buses, subcontractor activities which are the outside of the campuses, food and drink automats, water dispensers, logistic activities and emissions sourced by external waste disposal and recycling activities. Such emissions are not included in BEKO Electrical Appliances Co. Ltd. Plant's Greenhouse Gas Emissions Inventory.

### **Greenhouse Gas Emissions Inventory Calculations**

BEKO Electrical Appliances Co. Ltd. Plant's Greenhouse Gas Emissions Inventory calculations are based on mainly "Intergovernmental Panel on Climate Change (IPCC) 2006 Guidelines".

The calculation methodologies and emission factors are as follows:

- ✓ The "IPCC-2006 Guidelines for National Greenhouse Gas Inventories, Volume 2: Energy, Chapter 2: Stationary Combustion" is used to calculate the greenhouse gas emissions sourced by stationary combustion.
- ✓ The "IPCC-2006 Guidelines for National Greenhouse Gas Inventories, Volume 2: Energy, Chapter 3: Mobile Combustion" is used to calculate the greenhouse gas emission sourced by the mobile combustion.
- ✓ China electricity emission factor is used from Initiation and Reform Commission announcement for 2015 grid emission factor page 4 East China Power Grid OM data.
- ✓ The "American Petroleum Industry Compendium (2009)", "TS ISO 14064-1 GHG Reporting Standard - Ek C", "IPCC Guidelines for National Greenhouse Gas Inventories Chapter 7: ODS Substitutes - Volume 3: IPPU Intergovernmental Panel on Climate Change 2006", "2006 IPCC Guidelines for National Greenhouse Gas Inventories Volume 3: Industrial Processes and Product Use Chapter 7: Emissions of Fluorinated Substitutes for Ozone Depleting Substances", "IPCC Guidelines for National Greenhouse Gas Inventories Chapter 7: ODS Substitutes - Volume 3: IPPU Intergovernmental Panel on Climate Change 2006", "IPCC-2006 Guidelines for National Greenhouse Gas Inventories, Chapter 2: Stationary Combustion, Volume 2: Energy" are used to calculate the other direct greenhouse gas emissions.

In addition to these calculations, the negligible emissions and acceptances are calculated and the assumptions are documented in the Greenhouse Gas Emission Inventory.



### **Management of Uncertainties and Materiality**

The uncertainties can be caused by the measurement devices, potential record errors and deviations, possible deviations in calorific value and lower - upper values of the fuels.

The uncertainty is calculated regarding to BEKO Electrical Appliances Co. Ltd. Plant's direct greenhouse gas emission and indirect greenhouse gas emissions, separately.

Materiality is the sum of GHG inventory uncertainties and negligibles, acceptances. The company materiality has been calculated accordingly.

### **Internal Audits and Control Methods**

With data control purposes, internal audits are performed within the scope of ISO 14064-1 Standard and the finding are managed in accordance with the "GTP-16355 Corrective and Preventive Actions Procedure".

### **Opinion Restatement**

BEKO Electrical Appliances Co. Ltd. Plant's Greenhouse Gas Inventory 2017 is materially correct and is a fair representation of the data and is prepared in accordance with the related international standard on greenhouse gas and to relevant national standards or practices available. It has been agreed that the materiality is under 7%.

### **Verified GHG Emissions Belonging 2017**

Scope 1, Scope 2 and total greenhouse gas emissions of Arçelik A.Ş.'s BEKO Electrical Appliances Co. Ltd. Plant were verified as follows:

Scope – 1 GHG Emissions: 1118,06 tons CO<sub>2</sub> equivalent

Scope – 2 GHG Emissions: 6104,15 tons CO<sub>2</sub> equivalent

Total GHG Emissions: 7222,21 tons CO<sub>2</sub> equivalent

Materiality (%): 3,89