Scope3 Greenhouse Gas (GHG) Avoided Emissions Certificate

119-86-00900

N-iTUS Co.,LTD

4F, 153-8, LS-ro, Gunpo-si, Gyeonggi-do, Republic of Korea

This certifies the greenhouse gas avoided emissions N-iTUS Co.,LTD has achieved by take-back and recycling WEEE(Waste Electrical and Electronic Equipment) as in the following;

1)	**Activity Periods**	January 1, 2023 to December 31, 2023
2)	**Avoided Emissions**	35,921 $kgCO_2$-eq.
3)	**System Boundary**	Take-back (collection/transportation) and recycling of WEEE
4)	**Requester for certificate**	E-Cycle Governance
5)	**Verification body**	Korea Scope3 Association

For target WEEE and calculation methods, refer to [Annex]

Certification Issue Date | 2024.12.13.

First Certification Date | 2024.12.13.

Certification Number | KCEN-00035

*Verifying the authenticity of the certificate entry

www.kcen.kr

Korea Climate & Environment Network

Executive Representative | **Lee Woo Kyun**

KCEN 한국기후·환경네트워크 Korea Climate & Environment Network
5F(502), Saesulmak-gil 10-13, Gwacheon-si, Gyeonggi-do

- The Korea Climate and Environment Network is a governance organization that promotes carbon-neutral living practices in cooperation with the Ministry of Environment, private organizations, and companies.
- Korea Climate & Environment Network operates on a system in compliance with ISO/IEC 17029 and ISO 14065

Korea Climate & Environment Network

Annex

1. Information on Greenhouse Gas Avoided Emissions of Recycled WEEE

No.	WEEE Group	Take-back · Recycle (kg)	Greenhouse Gas Avoided Emissions ($kgCO_2$-eq.)
1	Telecommunications Office products	21,605	35,921
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
Total	-	21,605	35,921

Annex

2. Scope 3 Greenhouse Gas Emissions and Avoided Emissions Calculation Guidelines

1) Scope 3 Definition

- It refers to indirect greenhouse gas emissions occurring in the value chain of a company or organization. It refers to all indirect emissions resulting from the activities of a company or organization but to the extent that they are not directly owned or controlled by the company or organization (use, End-of-Life treatment, etc.).

Scope1. Direct emissions, Emissions from operations that are owned or controlled by the reporting company

Scope2. Indirect emissions, Emissions from the generation of purchased or acquired electricity, steam, heating, or cooling consumed by the reporting company

Scope3. Indirect emissions, All indirect emissions (not included in scope 2) that occur in the value chain of the reporting company

* Source : WRI(WBCSD), Corporate Value Chain (Scope 3) Accounting and Reporting Standard

2) Basis for Application

Upstream or downstream	Category
Upstream scope3 Emission	1. Purchased goods and services 2. Capital goods 3. Fuel-and energy-related activities (not included in scope1 or scope2) 4. Upstream transportation and distribution 5. Waste generated in operations 6. Business travel 7. Employee commuting 8. Upstream leased assets
Downstream scope3 Emission	9. Downstream transportation and distribution 10. Processing of sold products 11. Use of sold products 12. End-of-life treatment of sold products 13. Downstream leased assets 14. Franchises 15. Investments

* Source : WRI(WBCSD), Corporate Value Chain (Scope 3) Accounting and Reporting Standard

Annex

2. Scope 3 Greenhouse Gas Emission and Avoided Emission Calculation Guidelines

3) Definition of Greenhouse Gas Emission reduction

- Greenhouse gas emissions reduction is the quantified decrease in GHG emissions between the baseline scenario that absences greenhouse gas reduce activities and the greenhouse gas project. (Source : ISO 14064-3:2019 3.4.8, partially revised)
- A baseline scenario is a hypothetical reference case that best represents the conditions most likely to occur in the absence of a proposed the greenhouse gas project.
  (Source : ISO 14064-3:2019 3.4.7)
- A greenhouse gas project is an activity or activities that alter the conditions of a greenhouse gas baseline and which cause greenhouse gas emission reductions or greenhouse gas removal enhancements. (Source : ISO 14064-3:2019 3.4.1)
- The greenhouse gas baseline is reference of greenhouse gas emissions that would have occurred in the absence of a greenhouse gas project. It refers to the greenhouse gas emissions in the baseline scenario.
  (Source : ISO 14064-3:2019 3.4.6, partially revised)

4) Scope 3 Greenhouse Gas Avoided Emissions in End-of-Life treatment category

- The greenhouse gas emission reduction in the End-of-Life treatment category of Scope3 (Category 12) refers to the emission reduction amount based on the difference between the greenhouse gas project and the baseline scenario, according to the definition in 3).
- Greenhouse gas emissions and emission reduction amount due to waste take-back and recycling in the disposal stage is calculated based on the 'End-of-Life Treatment of Sold Products (category 12)' defined by the Greenhouse Gas Protocol. Category 12 includes activities of producers (producer groups/producer's responsible organizations) and local governments that take-back and recycle waste in connection with producers, and institutions (or organizations) cooperating in retrieval, etc.

Annex

2. Scope 3 Greenhouse Gas Emission and Avoided Emission Calculation Guidelines

4) Scope 3 Greenhouse Gas Avoided Emissions in End-of-Life treatment category

- The greenhouse gas project in the End-of-Life treatment category of Scope 3 refers to actual greenhouse gas reduction(avoided emission)* and is based on the three activities in the following;

  a) Activities to avoid greenhouse gas emissions during raw material collection and processing by using recycled raw materials produced through waste take-back and recycling;

  b) Energy production activities by retrieving heat energy generated by incinerating waste other than renewable raw materials produced through waste take-back and recycling;

  c) Activities to avoid greenhouse gas emissions through tack-back of residual refrigerant in waste

  *** Avoided Emission**
  It refers to the direct result of greenhouse gas emissions resulting from changes in organizational activities, which includes avoiding greenhouse gas emissions occurring within the extent of Scope3, avoiding emissions associated with the production of energy (electricity, steam, hot or cold water) produced in a way that emits fewer greenhouse gases per unit compared to ordinary energy production methods, etc.
  (Source : ISO TR 14069:2015 3.1.5, partially revised)

5) Calculation methods for Greenhouse Gas Emissions

- This emissions amount was calculated based on the 'Calculation methods for Greenhouse Gas Emissions and Avoided Emissions of WEEE recycling(*)

  (*) The calculation methods for greenhouse gas emissions and avoided emissions from WEEE recycling have been verified by the Korea Scope3 Association (Certification Number: KSA-00001-A).

- The calculation of emissions in the calculation guideline applies the calculation principles and requirements (guidelines) of internationally accepted life cycle assessment (LCA) and carbon footprint standards.

  * ISO 14040:2006 (Environmental management — Life cycle assessment — Principles and framework)
  * ISO 14044:2006 (Environmental management — Life cycle assessment — Requirements and guidelines)
  * ISO 14067:2018 (Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification)

Annex

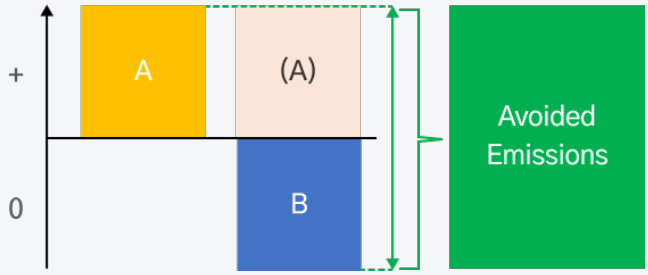
2. Scope 3 Greenhouse Gas Emission and Avoided Emission Calculation Guidelines

6) Methodology for Calculating Greenhouse Gas Avoided Emissions Amount

- This avoided emissions amount was calculated based on the 'Calculation methods for Greenhouse Gas Emissions and Avoided Emissions of WEEE recycling'
- The calculation of avoided emissions amount adapted the environmental impact assessment methodology of the EU Circular Footprint Formula and applied the actual greenhouse gas avoided emissions.

7) Calculation of Greenhouse Gas Avoided Emissions

- The avoided emissions was calculated as follows according to the Greenhouse Gas Emissions and Avoided Emissions Calculation Guidelines.



A : Emissions, excluding greenhouse gas-avoiding activities *
(*) : Refer to Annex 4)

B : Emissions, including greenhouse gas-avoiding activities
∴ - (B - A) = Avoided Emissions