
2024 SK Telecom Taxonomy Report

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1. Overview of K-taxonomy

The Korean Green Taxonomy ("K-taxonomy") is a classification system announced by the Korean government in December 2021 to prevent greenwashing and to direct green funds into green projects or green technologies by presenting clear criteria for green economic activities. In order for an activity to be recognized as a green economic activity under the K-taxonomy, the activity must (1) meet the 74 economic activity categories of K-taxonomy (Activity Description, "Description"), (2) meet the technical standards to contribute to one or more of the six environmental objectives of greenhouse gas reduction, climate change adaptation, sustainable water preservation, transition to circular economy, pollution prevention and control, and biodiversity preservation (Technical Screening Criteria, "TSC"), (3) do not cause serious damage to other environmental objectives (Do No Significant Harm, "DNSH"), and (4) do not violate the laws and regulations related to human rights, labor, safety, anti-corruption, and cultural heritage destruction (Minimum Social Safeguards, "MSS").

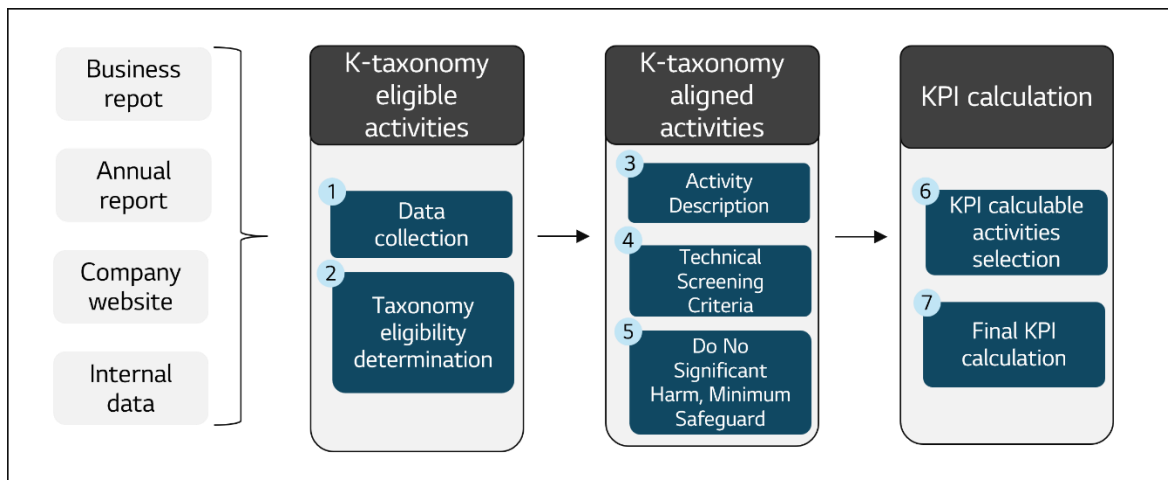
If a company's activity falls under one of the 74 K-taxonomy economic activities, it is defined as K-taxonomy eligible. If such eligible activity meets all the Description, TSC, DNSH, and MSS, it is defined as K-taxonomy aligned, or a truly green economic activity.

2. SK Telecom K-taxonomy Application

2.1. K-taxonomy Application Overview

Last year, SK Telecom classified its green economic activities carried out in FY2022 based on K-taxonomy, calculated Turnover, CapEx and OpEx of such activities as required by EU Taxonomy Regulation, and disclosed the outcome in Taxonomy Report, which was the first case in Korea. In 2024, SK Telecom calculated the same disclosure KPIs for core business areas as well as general environment-related activities and, notably, identified a number of green economic activities in AI-based services that have recently become increasingly important.

More specifically, SK Telecom conducted K-taxonomy eligible activity screening this year using more comprehensive sources such as business report, annual report, company website, as well as various internal data. Since then, the company has determined K-taxonomy aligned activities that met the Description, TSC, DNSH, and MSS while those activities that Taxonomy disclosure KPIs – Turnover, CapEx, OpEx – could not be calculated for any reason have been excluded. Then, the disclosure KPIs for the finally selected green economic activities were calculated.



[Figure 1] Process for K-taxonomy Alignment Assessment and KPI Calculation

While SK Telecom primarily relied on publicly available materials such as business report, annual report and company website for the Description and TSC assessment, relevant departments were contacted as well when additional information was required. For the DNSH and MSS assessment, the company reviewed a list of sanctions included in the business report as well as consulted with the legal department to find out whether the laws and regulations related to environmental, human rights, labor, safety, anti-corruption, and cultural heritage destruction were violated in FY2023.

2.2. Core Business

SK Telecom is evolving into a global AI company with telecommunications and AI businesses as its two main pillars. Through continuous AI technology innovation, SK Telecom provides a variety of taxonomy-eligible products and services in (1) energy management and (2) transportation and logistics sectors.

(1) Energy Management Sector

SK Telecom's Taxonomy-eligible products and services in the energy management sector include cloud energy management system (EMS), remote meter reading service, and NUGU Smart Home.

- Cloud EMS is a comprehensive energy total solution that integrates ICT technology with energy management system to optimize heating and cooling and improve energy efficiency, which is eligible for K-taxonomy's '1-B-(19) Development of ICT-based energy management solutions and establishment and operation of systems' activity;
- The remote meter reading service is a solution that remotely measures energy consumption in real time using a dedicated IoT network, which eligible for 'Common-A-(1) Manufacture of innovative items' activity; and

- NUGU Smart Home is a service that enables efficient energy use by interconnecting household electronics, which eligible for 'Common-A-(2) Manufacture of materials, parts and equipment of innovative items' activity.

<Table 1> Assessment of Taxonomy Alignment of Products/Services in Energy Management

Products / Services	K-taxonomy Economic Activities	Description/TSC Rationale	Alignment Assessment
Cloud EMS	1-B-(19) Development of ICT-based energy management solutions and establishment and operation of systems	Contribute to greenhouse gas reduction through energy efficiency improvement such as heating and cooling optimization	Aligned
Remote meter reading service	Common-A-(1) Manufacture of innovative items	Contribute to greenhouse gas reduction through efficient management of metered energy usage	Aligned
NUGU Smart Home	Common-A-(2) Manufacture of materials, parts, and equipment for innovative items	Contribute to greenhouse gas reduction through efficient energy use of electronics	Aligned

K-taxonomy economic activity '1-B-(19) Development of ICT-based energy management solutions and establishment and operation of systems' sets its TSC based on, among other things, whether the ICT solutions promote the use of renewable energy, facilitate the adoption of pollution-free transportation, or improve energy efficiency. Cloud EMS meets such TSC as it is part of the development of ICT solutions to improve energy efficiency. On the other hand, the activities 'Common-A-(1) Manufacture of innovative items' and 'Common-A-(2) Manufacture of materials, parts and equipment of innovative items' do not provide any TSC, which means that they are considered to be automatically satisfied.

All the mentioned products and services which contribute to the reduction of greenhouse gas emissions meet all the required DNSH for the remaining five environmental objectives (climate change adaptation, sustainable water preservation, transition to a circular economy, pollution

prevention and control, and biodiversity preservation) as both climate risk measurement and management were carried out and no applicable environmental laws and regulations were violated.¹ In addition, no violations related to human rights, labor, safety, anti-corruption, and cultural heritage destruction were identified. Therefore, all the discussed products and services in the energy management sector are classified as K-taxonomy aligned activities.

(2) Transportation and Logistics Sector

Taxonomy-eligible products and services in the transportation and logistics sector include Intelligent Transport Systems (ITS), Urban Air Mobility (UAM), and AI Logistics Robot Solutions.

- ITS is an intelligent transportation system that connects vehicles, pedestrians, and transportation infrastructure with 5G, which is the basis for autonomous transportation that is included in the K-taxonomy 'Common-A-(1) Manufacture of innovative items' activity;
- UAM is an air mobility service based on electric-powered aerial vehicle that is included in the '1-A-(2) Manufacture of materials, parts and equipment to utilize core technologies for Greenhouse Gas Reduction' activity; and
- AI logistics robotics solution is a solution that can sort atypical goods of various sizes and shapes, which falls under the 'Common-A-(2) Manufacture of materials, parts and equipment of innovative items' activity.

¹ The DNSH assessment of a certain activity is carried out only for the five environmental objectives other than the objective such economic activity being assessed contributes to. For example, if the activity contributes to the transition to a circular economy, DNSH for greenhouse gas reduction, climate change adaptation, sustainable water preservation, pollution prevention and control, and biodiversity preservation are assessed.

**<Table 2> Assessment of Taxonomy Alignment of Products/Services in Transportation
Sector and Logistics**

Products / Services	K-taxonomy Economic Activities	Description/TSC Rationale	Alignment Assessment
ITS	Common-A-(1) Manufacture of innovative items	Contribute to greenhouse gas reduction through unnecessary fuel consumption reduction with efficient transportation systems	Aligned
AI logistics robotics solution	Common-A-(2) Manufacture of materials, parts and equipment of innovative items	Contribute to greenhouse gas reduction through logistics process optimization	Aligned
UAM	1-A-(2) Manufacture of materials, parts, and equipment to utilize core technologies for greenhouse gas reduction	Contribute to greenhouse gas reduction through electricity power usage	Aligned

K-taxonomy does not require TSC for 'Common-A-(1) Manufacture of innovative items' and 'Common-A-(2) Manufacture of materials, parts and equipment of innovative items'. On the other hand, for '1-A-(2) Manufacture of materials, parts and equipment to utilize core technologies for Greenhouse Gas Reduction', the TSC whether the materials, parts and equipment are used for renewable energy and pollution-free transportation is provided. UAM meets the criteria as it is a pollution-free aircraft, which is a pollution-free means of transportation.

Such products and services in the transportation and logistics sector are classified as K-taxonomy aligned activities as they also meet DNSH and MSS on the same basis as products/services in energy management sector.

2.3. General Environmental Activities

2.3.1. Activities Related to Greenhouse Gas Reduction

SK Telecom is conducting various greenhouse gas reduction activities at home and abroad, including utilizing renewable energy and electric vehicles, improving building energy efficiency, and distributing cookstoves in Myanmar.

<Table 3> Assessment of Taxonomy Alignment of Greenhouse Gas Reduction Activities

Products / Services	K-taxonomy Economic Activities	Description/TSC Rationale	Alignment Assessment
Installation of photovoltaic power generation facilities	1-B-(1) Production of renewable energy : Solar photovoltaics, concentrated solar power(CSP), wind power, hydropower, ocean energy, geothermal energy, and hydrothermal energy	Contribute to greenhouse gas reduction through renewable energy generation	Aligned
Introduction of electric vehicles	1-C-(2) Introduction of pollution-free vehicles/rolling stocks/construction machinery/agricultural machinery/vessels/ aircraft/bicycles	Contribute to greenhouse gas reduction through pollution-free electric vehicles introduction	Aligned
Installation of electric vehicle charging stations	1-C-(3) Establishment and operation of pollution-free transport infrastructure	Contribute to greenhouse gas reduction through electric vehicle use support	Aligned
Replacement of heating and cooling	1-D-(3) Establishment and	Contribute to greenhouse gas	Aligned

equipment in the office building	operation of facilities/infrastructure to reduce building-related greenhouse gases	reduction through energy efficiency improvement	
Replacement of heating and cooling equipment in telecommunication infrastructure	1-A-(6) Establishment and operation of facilities to reduce greenhouse gases	Contribute to greenhouse gas reduction through energy efficiency improvement; however, it is difficult to check data related to reduction	Eligible but not Aligned
Supply of cookstoves in Myanmar	1-B-(2) Production of renewable energy : Biomass	Contribute to greenhouse gas reduction through heat production using biomass; however, it is difficult to check data related to emissions	Eligible but not Aligned

* Eligible but not Aligned: An economic activity that falls under the category of green economic activity but does not meet one or more of the TSC, DNSH or MSS.

K-taxonomy's activities '1-B-(1) Production of renewable energy : Solar photovoltaics, concentrated solar power(CSP), wind power, hydropower, ocean energy, geothermal energy, and hydrothermal energy', '1-C-(2) Introduction of pollution-free vehicles/rolling stocks/construction machinery/agricultural machinery/vessels/aircraft/bicycles', and '1-C-(3) Establishment and operation of pollution-free transport infrastructure' do not apply any TSC.

However, there are TSC for '1-D-(3) Establishment and operation of facilities/infrastructure to reduce building-related greenhouse gases', '1-A-(6) Establishment and operation of facilities to reduce greenhouse gases', and '1-B-(2) Production of renewable energy : Biomass'.

'1-D-(3)' requires the installation of related facilities to reduce energy consumption and improve energy efficiency, and SK Telecom's activity of replacing heating and cooling equipment in its offices meets the TSC as it contributes to improving energy efficiency through introduction of high-efficiency equipment.

In contrast, '1-A-(6)' requires that the newly introduced facility to reduce greenhouse gas emissions by service life $\times \Delta 2.4\%$ compared to the existing facility as a TSC. However, since it

is difficult to verify the greenhouse gas emission reduction data, it is not possible to determine if the TSC are met. '1-B-(2)' suggests that the greenhouse gas emissions relative to energy production is within 100gCO₂eq/kWh, but due to practical difficulties in verifying the greenhouse gas emission data of cookstoves used in Myanmar, it is not possible to verify if the TSC are met.

Therefore, two activities are categorized as K-taxonomy eligible but not aligned activities, while the other activities are categorized as K-taxonomy aligned because they all contribute to greenhouse gas reduction and meet the DNSH for the remaining five environmental objectives (climate change adaptation, sustainable water preservation, transition to circular economy, pollution prevention and control, and biodiversity preservation) and also meet the MSS.

2.3.2. Activities Related to Climate Change Adaptation

SK Telecom is enhancing its disaster prevention system and reinforcing its climate change response capabilities by educating employees and conducting research on climate change adaptation.

<Table 4> Assessment of Taxonomy Alignment of Climate Change Adaptation Activities

Products / Services	K-taxonomy Economic Activities	Description/TSC Rationale	Alignment Assessment
Emergency disaster text message	2-A-(2) Establishment and operation of facility and system for disaster prevention and climate forecast	Contribute to climate change adaptation through climate change caused disaster prevention	Aligned
Study and Research on Climate Risk	2-A-(3) Surveys and research related to climate change adaptation	Contribute to climate change adaptation through raising the company's awareness of climate change	Aligned
Environmental management education	2-A-(4) Educational, cultural and artistic activities related to climate change adaptation	Contribute to climate change adaptation through raising employees' awareness of climate change, but do not obtain necessary	Eligible but not Aligned

		certification	
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Unlike K-taxonomy activity '2-A-(2) Establishment and operation of facility and system for disaster prevention and climate forecast' that does not apply any TSC, '2-A-(3) Surveys and research related to climate change adaptation' and '2-A-(4) Educational, cultural and artistic activities related to climate change adaptation' do have TSC.

'2-A-(3)' is the TSC for flood response and forest-related disaster mitigation research that considers future rainfall risks. SK Telecom's climate risk studies and research meet the TSC as they address climate change adaptation. However, '2-A-(4)' requires the acquisition of an exemplary environmental education certification, but SK Telecom has not acquired such a certification and therefore does not meet the TSC.

Activities that do not meet the TSC are categorized as eligible but not aligned with K-taxonomy, while other activities are categorized as K-taxonomy aligned because they all contribute to climate change adaptation and meet the DNSH for the remaining five environmental objectives (greenhouse gas reduction, sustainable water preservation, transition to circular economy, pollution prevention and control, and biodiversity preservation) and also meet the MSS.

2.3.3. Activities related to the transition to circular economy

SK Telecom is promoting the multi-use cup reuse campaign Happy Habit to reduce plastic waste emissions, and is also recycling waste antennas and waste cable drums.

<Table 5> Assessment of Taxonomy Alignment of Activities Related to Transition to Circular Economy

Products / Services	K-taxonomy Economic Activities	Description/TSC Rationale	Alignment Assessment
Happy Habit	4-A-(3) Recycling(reuse/remanufacturing/recovery) and upcycling of waste	Contribute to the transition to a circular economy by reusing waste	Aligned
Waste antenna and cable drum recycling	4-A-(3) Recycling(reuse/remanufacturing/recovery) and upcycling of waste	Contribute to the transition to a circular economy by reusing waste	Aligned

K-taxonomy's '4-A-(3) Recycling(reuse/remanufacturing/recovery) and upcycling of waste' does not apply any TSC. Happy Habit and recycling of waste antenna and cable drum are all activities that contribute to the transition to a circular economy, meeting the DNSH of the remaining five environmental objectives (greenhouse gas reduction, climate change adaptation, sustainable water preservation, pollution prevention and control, and biodiversity preservation), as well as the MSS. Therefore, both activities are classified as K-taxonomy aligned activities.

3. Taxonomy Disclosure KPI Calculation

As there is no official methodology for calculating K-taxonomy disclosure KPIs, SK Telecom used Turnover, CapEx and OpEx as KPI indicators in accordance with the EU Taxonomy Delegated Regulation (EU)2021/2178. SK Telecom's Turnover, CapEx and OpEx aligned with K-taxonomy stood at KRW 24,370 million(0.194%), KRW 7,021 million(0.354%) and KRW 7,665 million(1.058%) respectively.²

² SK Telecom has continued to refine its Taxonomy KPIs calculation process to reflect the underlying idea of K-taxonomy alignment assessment criteria and EU Taxonomy disclosure KPIs in a more sophisticated manner. More specifically, while the KPIs were calculated primarily based on the data in the business reports in 2023, a more comprehensive approach was adopted in 2024 for the same KPI calculation by, for example, additionally analyzing detailed items of each department's costs and expenses and considering only those items that are strictly aligned with the specific categories of EU Taxonomy disclosure KPIs.

<Table 6> FY2023 SK Telecom Taxonomy KPIs

K-taxonomy classification		Turnover		CapEx		OpEx	
		KRW (million)	Ratio	KRW (million)	Ratio	KRW (million)	Ratio
K-taxonomy eligible economic activities	K-taxonomy aligned economic activities	24,370	0.194%	7,021	0.354%	7,665	1.058%
	Development of ICT-based energy management solutions and establishment and operation of systems	22,313	0.177%	902	0.045%	1,771	0.244%
	Manufacture of innovative items	-	-	971	0.049%	928	0.128%
	Manufacture of materials, parts, and equipment for innovative items	-	-	649	0.033%	757	0.105%
	Manufacture of materials, parts, and equipment to utilize core technologies for greenhouse gas reduction	-	-	1,864	0.094%	1,339	0.185%
	Production of renewable energy : Solar photovoltaics, concentrated solar power(CSP), wind power,	-	-	89	0.004%	-	-

K-taxonomy classification		Turnover		CapEx		OpEx	
		KRW (million)	Ratio	KRW (million)	Ratio	KRW (million)	Ratio
	hydropower, ocean energy, geothermal energy, and hydrothermal energy						
	Introduction of pollution-free vehicles/rolling stocks/construction machinery/agricultural machinery/ vessels/aircraft/bicycles	-	-	-	-	625	0.086%
	Establishment and operation of pollution-free transport infrastructure	-	-	-	-	121	0.017%
	Establishment and operation of facilities/infrastructure to reduce building-related greenhouse gases	-	-	2,360	0.119%	240	0.033%
	Establishment and operation of facility and system for disaster prevention and climate forecast	-	-	187	0.009%	12	0.002%
	Surveys and research related to climate change adaptation	-	-	-	-	209	0.029%
	Recycling(reuse/remanufacturing/	2,056	0.016%	-	-	1,663	0.230%

K-taxonomy classification		Turnover		CapEx		OpEx	
		KRW (million)	Ratio	KRW (million)	Ratio	KRW (million)	Ratio
	recovery) and upcycling of waste						
	K-taxonomy eligible but not aligned economic activities	-	0%	3,447	0.174%	5,878	0.812%
	Establishment and operation of facilities to reduce greenhouse gases	-	-	2,520	0.127%	5,433	0.750%
	Production of renewable energy : Biomass	-	-	909	0.046%	445	0.061%
	Educational, cultural and artistic activities related to climate change adaptation	-	-	18	0.001%	-	-
	Sum	24,370	0.194%	10,468	0.528%	13,544	1.870%
K-taxonomy non-eligible economic activities		12,564,850	99.806%	1,973,824	99.472%	710,842	98.130%
Total		12,589,220	100%	1,987,292	100%	724,386	100%