

# **Full-Scale Operation of Battery Recycling Hub Begins... Opening of the ‘Korea Battery Circulation Cluster’**

- Operating infrastructure focused on fostering the battery recycling industry to accelerate the transition to a circular economy
- Providing customized support across the entire cycle from recycling technology development to commercialization

The Ministry of Climate, Energy and Environment (MCEE, Minister Kim Sungwhan) announced that on the morning of November 4, an opening ceremony was held at the Conference Hall of the Korea Battery Circulation Cluster Building (located in Donghae-myeon, Pohang), marking the official start of the facility’s full-scale operation.

The Korea Battery Circulation Cluster is a national infrastructure that supports the entire cycle from the development of recycling technologies for used batteries to commercialization, aimed at fostering the domestic battery recycling industry and securing a stable supply chain for critical minerals.

The newly opened Korea Battery Circulation Cluster Research Support Complex (approximately 17,000m<sup>2</sup>) is located within the Pohang Blue Valley National Industrial Complex. The facility consists of a Resource Circulation Research Center, equipped with demonstration research equipment for all battery recycling processes such as used battery performance evaluation, black mass\* production, and valuable metal extraction, and a Comprehensive

Information Support Center, which includes various facilities to support tenant companies as well as functions for promotion and exhibitions.

\* An intermediate material in the form of a black powder obtained by crushing or pulverizing used batteries or battery manufacturing scraps, which contains high concentrations of valuable metals.

The Korea Battery Circulation Cluster supports battery recycling companies that lack their own research facilities by allowing them to jointly use demonstration research equipment necessary for developing recycling and reuse technologies.

It also supplies recycled materials needed for technology development\* to companies and provides various commercialization opportunities through customized consulting based on corporate demand.

\* Used electric vehicle batteries collected by the Future Waste Resources Base Collection Centers (four nationwide) will be provided to companies for research purposes.

Starting next year, a pilot operation of the Recycled Material Production Certification System will be implemented to verify that key minerals such as nickel and cobalt used in battery production are recovered from used batteries or manufacturing scraps, thereby laying the groundwork for revitalizing the battery recycling market.

In addition, the government plans to train professionals specializing in battery recycling and conduct promotional and educational tours for students and the general public to raise awareness of the importance of battery recycling.

The MCEE plans to establish a cooperative framework among the government, private companies, universities, and research institutions centered on the Korea Battery Circulation Cluster, with the goal of accelerating the development of the domestic battery recycling ecosystem and the transition to

a circular economy.

Kim Go-eung, Director General for the Resources Circulation Bureau at the MCEE, stated, “Battery recycling is a future strategic industry for securing a stable supply chain of critical minerals.” He added, “We will do our utmost to provide technological and policy support tailored to industry needs so that the battery recycling sector can take a major leap forward through the Korea Battery Circulation Cluster.”

## □ Project Overview

- **(Purpose)** Establishment of a national hub infrastructure to support technology development, demonstration research, and talent cultivation for the focused promotion of the battery recycling industry

※ Legal Basis: Article 9 of the Act on the Creation and Fostering of Green Convergence Clusters

Designation Notice of the Green Convergence Cluster for Electric Vehicle Battery Resource Circulation” (December 12, 2023)

- **(Main Functions)** Support for recycling technology development (research equipment, demonstration facilities), business support (startup consulting, market development), and education and promotion (talent training, marketing, governance building), etc.

- **(Location)** Within the Blue Valley National Industrial Complex in Pohang, Gyeongsangbuk-do\*

\* 632-1, Gongdang-ri, Donghae-myeon, Nam-gu, Pohang-si, Gyeongsangbuk-do

- **(Total Project Cost)** KRW 48.9 billion

- **(Facility Composition)** Comprehensive Information Support Center + Resource Circulation Research Center

※ Support Center Conference hall, seminar room, exhibition hall, rental offices, meeting rooms

Research Center Demonstration laboratory, performance testing room, and test analysis room

- **(Main Equipment)** Battery performance diagnosis and discharge equipment, crushing and screening systems, and valuable metal recovery facilities, etc.

□ Korea Battery Circulation Cluster Logo and Front View

 <p><b>국가배터리순환클러스터</b> Korea Battery Circulation Cluster</p>	
<p><b>Cluster Logo</b></p>	<p><b>Front view of the Research Support Complex</b></p>