

# SK's Recycling Commitment: Advancing a Circular Economy

SK is a global leader in innovative technologies across a variety of industries aimed at fulfilling sustainability and green development objectives for decades to come. As the world faces growing crises related to plastics waste, fresh water scarcity, and critical supply chain disruptions, SK is actively researching and investing in next-generation recycling solutions to lead the important global shift toward a circular economy.





#### **Plastics Recycling**

Several SK operating companies are at the forefront of plastics recycling and partnering with leading innovators in the U.S. and around the world to close the recycling loop for plastics waste:

- SK Geo Centric (SKGC) is rapidly transforming into a world-class recycling company as it seeks to expand the circular economy for plastics. In fact, SKGC recently became one of the first petrochemical companies in the world to receive the highest certification, AAA, according to the UN Guidelines for Reducing Plastic Waste & Sustainable Ocean and Climate Action Acceleration. In 2020, SKGC made a major breakthrough by using pyrolysis—or extreme heat—to recycle waste plastic into lubricants and base oils, and it is now partnering with California-based Brightmark to commercialize the technology.
- SKGC also recently invested \$56.5 million in North American company Loop Industries and announced a new joint venture with Florida-based PureCycle Technologies to build plastics waste recycling facilities across Asia and enhance chemical recycling technologies. SKGC also invested \$10 million with U.S.-based Closed Loop Partners to advance circular business models, scalable plastics recycling technologies, and materials recovery infrastructure in North America.
- SKC, located in Covington, Georgia, has developed Ecolabel<sup>™</sup>, the world's first fully recyclable shrink label for plastic bottles. SKC's innovations with Ecolabel<sup>™</sup> and other recyclable films reduce water usage, overall recycling costs, and the amount of shrink labels and plastic bottles that end up in landfills. SKC is also seeking to commercialize pyrolysis technology to turn plastics waste into boiler fuel, insulation materials for LNG vessels and synthetic resins.
- SK Chemicals is one of the world's largest producers of eco-friendly plastics for personal protective equipment, medical packaging, water bottles, and cosmetic packaging. SK Chemicals utilizes mechanically and chemically recycled plastic to produce Ecotria<sup>™</sup>, which was developed as part of the transition to eco-friendly, high-quality cosmetics packaging.
- **SK Telecom** is producing new telecommunications equipment by recycling the plastics and scrap metals in old antennas, leading to the annual reduction of 300,000 tons of plastics waste, or the equivalent of a million 1.5 liter PET bottles.

#### Water Recycling

SK is firmly committed to reducing the usage of precious water resources and adopting nextgeneration water recycling practices and technologies, particularly in underserved communities.

For example, **SK Hynix** is a global leader in water resources management throughout the semiconductor manufacturing process and plans to increase water savings by 300% compared to 2019, as part of its Green 2030 plan. SK Hynix also recently issued a \$1 billion green bond to finance eco-friendly projects, including new wastewater treatment plants and water recycling facilities.

Additionally, **SK Ecoplant** has demonstrated its commitment to water resources management by becoming the largest water treatment and wastewater recycling company in South Korea in the past year. Several other SK operating companies, meanwhile, are focused on innovative technologies to improve water quality, such as artificial intelligence-enabled solutions to water contamination.



### **Electric Vehicle (EV) Battery Recycling**

As the United States undertakes ambitious goals to electrify the transportation sector, SK believes that recycling remains a critical piece of the puzzle to ensure a secure supply of critical minerals for EV batteries and reduce the cradle-to-grave environmental impact of electric vehicles.

**SK Innovation** has successfully developed a proprietary technology to recover lithium hydroxide from spent EV batteries, a critical advancement to reduce EV battery waste and create a stable and sustainable EV battery supply chain. U.S. Argonne National Laboratory recently verified the technology as eco-friendly and found that the use of recycled lithium hydroxide in cathodes could emit significantly fewer greenhouse gases than the use of lithium produced from mines and salt lakes. SK Innovation is also partnering with Hyundai and Kia to develop a circular economy for EV batteries, with a focus on critical mineral recovery and battery recycling for second-life applications in energy storage systems and other EVs.

#### A Commitment to a Sustainable Future

SK believes that companies must prioritize sustainability and invest heavily in innovative technologies to address the threat of climate change and ensure economic prosperity for all people. As such, SK is committed to and actively pursuing global leadership on recycling practices, technological innovation, and investments, particularly as they relate to plastics waste, water, and EV batteries.

#### **Battery Metal Recycling Process**



## **Sustainability Pays**

U.S. adults who say they're likely to give buying preference to products with packaging that can be reused or easily recycled



