

Business Model Innovation Based on ESG

01. BATTERY ECOSYSTEM

SK intends to become an eco-friendly company that produces beneficial values for the environment. In particular, SK is concentrating its capabilities to secure unique competitiveness, focusing our attention on batteries as a key element that will enable fundamental changes.



SK has noted the potential of the battery industry, which would allow low-carbon and green growth innovation of economic and social structures. From production to use, rental, charging, reuse, and recycling, various member companies are closely cooperating to build an ecosystem throughout the entire value chain.

EV batteries from SK On have been proven to be safe, recording zero fire accidents in vehicles after the supply of 270 million cells. Based on its independent technologies for cathode materials, anode materials, and modules, SK On has secured outstanding long-distance driving performance and can rapidly charge vehicles within 15 minutes.

SK IE Technology combined its chemical technologies, accumulated over 50 years, and cutting-edge nanotechnologies to develop a lithium-ion battery separator (LiBS), which was the first of its kind developed in South Korea and the third in the world. Utilizing the technological power of the world's best copper foil manufacturer, SKC is fostering the battery materials field as its new growth engine for the future.

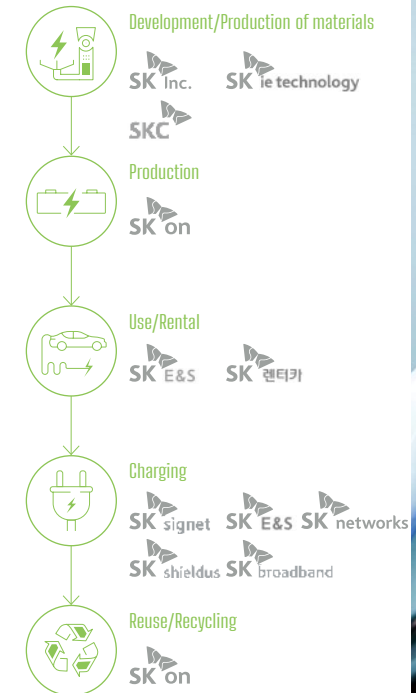
SK Innovation is pursuing "Battery as a Service (BaaS)" businesses. Metals such as nickel, cobalt, and lithium are retrieved from used batteries and recycled into battery materials through a system that monitors batteries in real-time.

SK Signet is building a convenient environment for driving EVs and offers solutions ranging from slow to super-fast chargers based on unrivaled technologies and professional knowledge.

As seen in these examples, SK member companies are creating social values by utilizing their business capabilities and innovating business models across the battery lifecycle.

BATTERY ECOSYSTEM

Providing eco-friendly solutions throughout the value chain



02. CLEAN ENERGY ECOSYSTEM

The future envisioned by SK is powered by eco-friendly energy. By applying various energy solutions centered on renewable energy and hydrogen energy, SK is speeding up the development of an eco-friendly energy ecosystem to prepare for the future energy market.



The future energy market will be governed by renewable energy and hydrogen energy, and energy solutions will solve the challenges that exist throughout the entire energy system. SK cultivates the business capabilities of its member companies to build an eco-friendly energy ecosystem. SK Inc., SK E&S, SK Innovation, SK On, SK Gas, and SK Ecoplant participate and cooperate in the full process, encompassing the production, storage, and use of renewable energy sources such as solar and wind power and hydrogen energy.

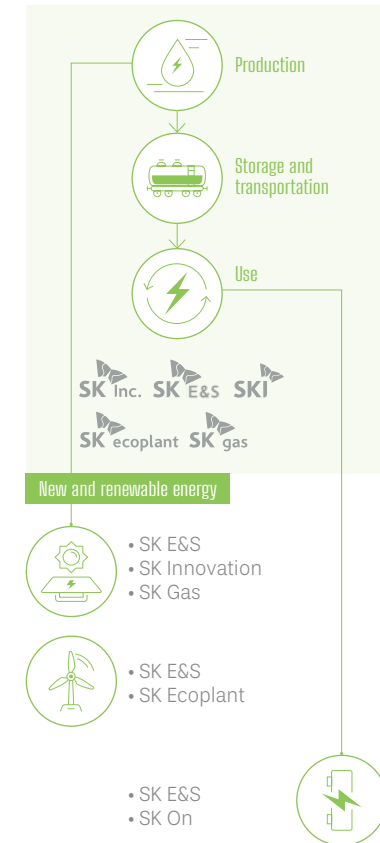
SK Inc. acquired shares to become the largest shareholder of Plug Power, a leading U.S. company in the hydrogen economy industry. In addition, SK Inc. has undertaken a business supplying water electrolysis equipment by establishing a joint corporation with Monolith, a U.S. company that was the world's first to produce turquoise hydrogen. Such investments and business expansions are a testament to SK Group's ambition to lead the formation of an eco-friendly hydrogen ecosystem.

SK E&S intends to complete its green portfolio through a business re-design. Its goal is to supply eco-friendly energy stably and efficiently by creating synergy among the low-carbon LNG, eco-friendly LNG, hydrogen, and renewable energy businesses. Notably, SK E&S is the largest private renewable energy business operator in South Korea, operating solar and wind power businesses. By 2025, SK E&S will become a global renewable energy player possessing a 7 GW pipeline.

Moreover, SK Innovation, SK On, and SK Ecoplant are improving their competitiveness in diverse energy solution areas, including the Energy Storage System (ESS) business, fuel cell business, microgrid business based on distributed generation, and mobility solution business based on EV batteries.

A future of unlimited, clean energy is imminent. SK will bring us closer to making this future a reality by innovating its business models through ESG.

HYDROGEN ECOSYSTEM



03. PLASTIC ECOSYSTEM

SK innovates to realize a green chemical ideal. The chemical member companies of SK are building a circular economic system throughout the plastic value chain by cooperating closely and utilizing advanced technologies, working together to promote business model innovation.



Plastics make our lives convenient, but are the main cause of environmental pollution. Accordingly, SK focuses on developing innovative technologies to mitigate their adverse effects while maintaining their useful functions.

With the goal of becoming the "world's largest urban oil field company" that produces petroleum by recycling waste plastics, SK Geocentric is accelerating its efforts to commercialize the pyrolysis oil manufacturing technology that decomposes waste plastics into naphtha for plastic products using heat and the depolymerization technology, which chemically decomposes and recycles contaminated plastic bottles and clothes.

SK Chemicals has announced its goal of replacing raw materials with discarded plastics and nature-derived biomaterials by 2030. It will achieve this by innovating business models and transforming the existing chemical materials business, which is focused on petrochemical products, into a business founded on green materials.

SKC has also taken the initiative to build a virtuous cycle of recycling large amounts of waste plastics by commencing an eco-friendly business that recycles waste plastics using pyrolysis oils.

SK Ecoplant and SK Telecom have undertaken a business to reduce carbon emissions by enabling consumers to recycle plastics in everyday life using reverse vending machines and reusable cup collectors.

It takes only 5 minutes to use disposable plastics but 500 years for them to decompose. Frans Timmermans, Executive Vice-President of the EU Commission, warned, "If we don't change the way we produce and use plastics, there will be more plastics than fish in our oceans by 2050."

SK will act. By reducing the time taken to decompose plastics and reusing more waste plastics, SK will reduce our carbon footprint and contribute to achieving Net Zero.

VALUE CHAIN OF THE PLASTIC CIRCULAR ECONOMY

