

Wärtsilä and Hyundai Motor Group announce energy storage partnership maximizing second-life electric vehicle batteries

Global partnership between the fifth largest automaker and energy systems integrator to enable sustainability in second-life EV battery opportunity

Wärtsilä Corporation and Hyundai Motor Group, Press release, 26 June 2018 at 11:20 am EEST **Seoul, South Korea and Helsinki, Finland**, — The technology group Wärtsilä and Hyundai Motor Group have signed a technology and commercial partnership designed to utilize second-life electric vehicle (EV) batteries towards the growing energy storage market. The global partnership will combine Hyundai's expansion in electric vehicles, with Wärtsilä's growing energy business, which includes 67 GW of installed power plants, as well as advanced energy storage technologies and software through the acquisition of [Greensmith Energy](#). The partnership will target advanced energy storage products and platforms that maximize Hyundai's second-life EV batteries to be commercialized in Wärtsilä's existing customer and channel networks across 177 countries globally. Wärtsilä sold close to 4 GW of power plants in 2017 in both developed and developing regions of the world. The long-term partnership will create a growing business and market for advanced energy storage systems and target both utility-scale and commercial applications suitable for second-life EV batteries. The associated business model and collaboration will pursue the establishment of a continuous, global supply chain that leverages key OEM relationships to take a holistic approach from battery manufacturing, EV applications and energy storage redeployments as well as recycling of materials. "Energy storage is the logical next step in the after-market use of EV batteries," said Dr. Youngcho Chi, Executive Vice President of Strategy & Technology Division and Chief Innovation Officer of Hyundai Motor Group. "By repurposing resource-intensive products like EV batteries, we eliminate disposal costs and extend the value of the R&D investment that goes into manufacturing the technology. Hyundai is strengthening its leadership in clean technology and sustainability by participating in the new energy business." In 2025, there will be 29 GWh of second-life EV batteries available, far exceeding the size of today's stationary storage market, with 10 GWh currently available for storage application. This presents a blue ocean in the new energy business that the partnership between Hyundai Motor Group and Wärtsilä aims to capitalize on. "Wärtsilä, through the capabilities and integration experience of Greensmith Energy, will develop a cleaner and more powerful approach to second-life battery applications for Hyundai Motor Group," said Javier Cavada, President of Wärtsilä Energy Solutions. "Our strategic partnership with Hyundai Motor Group represents the lifecycle vision Wärtsilä strives to deliver to our customers and partners around the world. Incorporating second-life EV batteries into our energy and integration business underscores our deep commitment to building sustainable societies with smart technologies." Hyundai Motor Group is developing of a 1MWh-level ESS that utilizes Hyundai IONIQ Electric and Kia Soul Electric's second-life battery by using its proprietary technology and has implemented a demonstration project in Hyundai Steel's factory. Started in the US, Greensmith Energy has deployed over 70 grid-scale systems across nine countries and offers an industry-leading energy software platform called GEMS, now in its fifth generation. As a Wärtsilä company, Greensmith is accelerating its reach into an expanding global market for programmable energy storage and playing a key role in Wärtsilä's vision to enable the growth and transition towards renewables through flexibility, reliability and integration.