

## DEOGAM Develops Electric Recycling System, Aims to Become a Must-Have Technology for EVs Worldwide

DEOGAM's Electric Recycling System recovers energy lost from harmonics. The company plans to apply its tech to EVs in Korea and present the results at CES 2025.

SEOUL, SOUTH KOREA, September 23, 2024 /EINPresswire.com/ -- DEOGAM (CEO Jin Ouk Kim) participated in the 'Global Media Meetup,' held from July 24 to 26 at MIK Base Camp in Seoul. The event was co-hosted by <u>AVING</u> <u>News</u> and U.S. tech media <u>Geekspin</u> and focused on introducing innovative technologies from Korean startups to the global market. It aimed to provide early reports on CES 2025 Innovation Award applications and increase business opportunities through global media exposure.



Jin Ouk Kim, CEO of DEOGAM, pitching at the 'Global Media Meetup' held at MIK Base Camp in Seocho-gu, Seoul, on July 26th I Photo by AVING News Jin Ouk Kim, CEO of DEOGAM, pitching at the 'Global Media Meetup' held at MIK Base Camp in Seocho-gu, Seoul, o

Founded in 2022, DEOGAM specializes in energy efficiency solutions for electric vehicles (EVs), contributing to their sustainable production and consumption. DEOGAM's core technology recycles energy lost from harmonics generated during vehicle operation, converting it into usable EV power.

Electric vehicles' power for motor rotation and driving comes from the battery, which stores direct current (DC) and converts it to alternating current (AC) through an inverter. During this conversion, energy loss generates heat and harmonics. As EV performance and output increase, power efficiency decreases due to this energy loss.

DEOGAM developed an Electric Recycling System using a Toroid energy core to address this issue, which induces electromagnetism and converts harmonic energy back into electric power.

The recovered energy, with its high electromotive force, can be stably converted and transmitted within a Buck & Boost converter, even with significant fluctuations in input voltage.

In DEOGAM's internal tests, the system demonstrated significant results. It recovered 18% of the energy lost due to harmonics during driving, increasing the EV range by up to 10%. For electric taxis, this could save approximately KRW 700,000 (USD 500) in annual maintenance costs.

This innovative technology earned DEOGAM a spot in the TIPS program for developing an energy efficiency system utilizing electromagnetic waves from EVs. The company is conducting related projects and plans to apply its technology to commercial EVs in Korea this year. The field test results will be presented at CES 2025 in Las Vegas.

Looking to 2025, DEOGAM has signed an MOU with Kakao Mobility to supply its technology to electric taxis. The company aims to expand its success in the Korean market, entering mobility markets in Germany, Norway, and major U.S. cities to promote ecofriendly mobility on a global scale.

During the media meetup, CEO Kim remarked, "Considering the global industry's need to achieve carbon neutrality, our technology will continue to demonstrate increasing value." He explained, "If DEOGAM's system were installed in 14 million electric vehicles worldwide, and each vehicle drove just



Jin Ouk Kim, CEO of DEOGAM, pitching at the 'Global Media Meetup'



Overview of DEOGAM's Electric Recycling System



Jin Ouk Kim, CEO of DEOGAM (far left), and Helena Stone, Geekspin Editor-in-Chief (far right), during a Q&A session at the 'Global Media Meetup'

30 km, the system would recover over 3 million megawatts of energy. This is equivalent to the daily output of 10 nuclear power plants or the environmental benefit of planting 12 million trees."

DEOGAM plans to install its Electric Recycling System in 500 electric taxis in Jeju starting in April 2025. By partnering with Kakao Mobility's nationwide network, the company intends to strengthen its presence in the commercial vehicle market and explore opportunities in the private EV market.



Jin Ouk Kim, CEO of DEOGAM (right), taking a commemorative photo

Kim further emphasized, "Our goal is to make DEOGAM's Electric Recycling System a 'must-have' for electric vehicles worldwide. We plan to market the system's near-zero carbon emissions during energy production, particularly appealing to the environmentally conscious European market."

DEOGAM also aims to lead a global movement for EVs that maximize the balance between power and performance. Unlike regenerative braking systems that recover energy through braking, DEOGAM's system increases energy recovery while the accelerator is engaged.

The system also tracks real-time power usage from the battery and motor and recovered energy from the system. DEOGAM plans to collect this data to create a database that offers insights into EV users' driving habits to maximize energy recovery.

Kim added, "Starting with electric taxis in 2025, we aim to expand our supply to electric buses by 2030. We will continue collecting and refining data from public transportation to foster an ecofriendly mobility culture. We aim to introduce groundbreaking technology and become a company that normalizes renewable energy use."

After learning about DEOGAM's long-term vision and values, Helena Stone, Geekspin Editor-in-Chief, remarked, "The idea of recovering and utilizing lost electricity has been around for a long time. However, the bold move to introduce this to EVs highlights DEOGAM's uniqueness." She added, "The message they convey through their technology is expected to impact EV users' lives worldwide significantly. I wish DEOGAM a successful journey in revolutionizing how we approach EV energy efficiency."

Founded in 2017, Geekspin is based in New York and covers tech and technology-related

industries. Helena Stone, an IT product expert, has contributed to media outlets such as MSNBC, Wired, ABC News, Time Magazine, and Women's Day Magazine. She regularly reports on global companies' products and technologies at major events like CES.

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