

## Enevate's Next Generation Battery Technology Provides Lower Carbon Footprint During Electric Vehicle (EV) Manufacturing

IRVINE, Calif. – June 16, 2021 – Enevate, a pioneering battery innovation company featuring extreme fast charge and high energy density battery technologies for electric vehicles (EVs) and other markets, delivers up to 26 percent reduction of carbon dioxide (CO<sub>2</sub>) emissions for manufacturing of EV batteries with Enevate's XFC-Energy™ technology compared to today's conventional lithium-ion EV batteries (21 percent for NCA and 26 percent for NMC cells [kg CO<sub>2</sub> eq. cradle-to-gate, per 1 kWh cell capacity]).<sup>1</sup> These accomplishments have the potential to lower an EV's carbon footprint at the start of life, which is significant because battery manufacturing is the highest contributor of CO<sub>2</sub> emissions for the manufacturing of an EV.

Enevate utilizes a higher energy density material and an innovative, ultra-thin multi-layer design in its large format EV cells that meet the demanding EV specifications. Enevate's battery technology strives to provide EV and battery companies with a process for taking measurable, cost-effective steps toward meeting carbon reduction and carbon neutrality requirements. Enevate's goal is to foster widespread adoption of this technology and work to impact the environment positively.

With an estimated [28 million EVs sold per year by the middle of the decade](#), the automotive industry's role in electric vehicle greenhouse gas reduction has become an important one. To illustrate, a 21 percent greenhouse gas emissions reduction over conventional batteries manufactured in a 100 gigawatt-hour per year lithium-ion EV battery factory would be the equivalent of eliminating driving emissions annually from approximately 511,000 gasoline-only cars or not burning about 265 million gallons of gasoline each year. Please visit Enevate's [Reduced CO<sub>2</sub> Emissions](#) webpage for more information.

"Enevate's core vision is to develop innovative battery technology that will enable a cleaner and more sustainable environment," said Enevate CEO Robert A. Rango. "By licensing our technology to automotive and battery manufacturers worldwide we hope to make this vision a reality by reducing the carbon footprint of EVs and making the world's environment better, cleaner and healthier."

"The CO<sub>2</sub> emission reduction Enevate's battery technology offers is a very desirable contribution to Renault's aim to reach carbon neutrality in Europe by 2040 and worldwide by 2050. Furthermore, it provides another critical milestone to bring this battery technology to sustainable EV production by 2025," said Philippe Schulz, VP Advanced Powertrain Engineering - Groupe Renault.

As the global automotive industry accelerates to EVs and transitions from internal combustion engine vehicles, with growing concerns about sustainability and global warming, environmental impacts have

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<sup>1</sup> Enevate CO<sub>2</sub> emissions information in accordance with international standards ISO 14044:2006, section 6.1 critical review. Further information available from Enevate Corp., 101 Theory # 200, Irvine, CA 92617.

become a central focus for automobile and battery manufacturers, consumers, environmental groups, and governments.

To that end, many companies, including Enevate, utilize a Life Cycle Analysis (LCA) tool to quantify a vehicle's environmental impact throughout its design life, including raw material extraction, manufacturing and assembly of the components, transportation to market, lifetime use, maintenance, and recycling. Enevate leverages its third-party verified, internationally standardized, multi-criteria LCA tool to calculate its battery technology's potential contribution to global warming due to carbon emissions and help our partners reach carbon neutrality.

Last year, Enevate announced its 4th generation XFC-Energy™ technology, which is positioned to be a game-changer for the EV industry, providing a path to produce extreme fast-charge EV batteries at low cost and high-volume production. Enevate is currently working with multiple automotive OEMs and EV battery manufacturers to commercialize its technology for 2024-2025 model year EVs, utilizing existing manufacturing infrastructure with minimal investment required, a core goal of its development.

#### ABOUT ENEVATE ([www.enevate.com](http://www.enevate.com))

Enevate develops and licenses advanced battery technology for electric vehicles (EVs), with a vision of EVs charging as fast as refueling gas cars, accessible and affordable to everyone, and accelerating EVs' mass adoption. With a portfolio of more than 400 patents issued and in process, Enevate's pioneering advancements (leveraging accelerated battery testing and machine learning) in silicon-dominant anodes and cells have resulted in battery technology that features five-minute extreme fast charging with high energy density, low-temperature operation for cold climates, low cost and safety advantages over conventional batteries.

Enevate's vision is to develop and propagate EV battery technology that contributes to a clean and sustainable environment. The Irvine, California-based company's investors include Renault-Nissan-Mitsubishi (Alliance Ventures), LG Chem, Samsung Venture Investment Corp, Fidelity Management & Research Company, Mission Ventures, Draper Fisher Jurvetson, Tsing Capital, Infinite Potential Technologies, Presidio Ventures – a Sumitomo Corporation company, Lenovo, CEC Capital, and Bangchak. Enevate®, the Enevate logo, HD-Energy®, and eBoost® are registered trademarks of Enevate Corporation.