# Enovix Announces BrakeFlow™ Technology

March 28, 2022

**An Additional Layer of Protection Against Thermal Runaway While Maintaining High Energy Density**

FREMONT, Calif., March 28, 2022 (GLOBE NEWSWIRE) -- Enovix Corporation ("Enovix") (Nasdaq: ENVX), the leader in the design and manufacture of next generation 3D Silicon™ Lithium-ion batteries, today announced its latest advancement called BrakeFlow™ technology, an intra-cell system that significantly increases tolerance against thermal runaway from internal shorts, without compromising high energy density.

"When we founded Enovix in 2007, our approach to improving cell performance was unique from other advanced battery technology companies," said Harrold Rust, Co-Founder, President and Chief Executive Officer of Enovix. "Solving a big problem differently than others is inherently challenging and creates unique issues. At the same time, it avoids problems others face and enables new opportunities others can't exploit or even imagine. Today's announcement is a momentous day for Enovix. It's a great example of how taking a different approach can lead to game-changing technology."

"We believe our battery architecture is one of the most significant advancements in Li-ion battery design in decades," said Ashok Lahiri, Co-Founder and CTO of Enovix. "Not only does our architecture enable a 100 percent active silicon anode, which notably increases energy density, but also enables us to launch new innovations like BrakeFlow, which by design, reduces the temperature rise at a short location, adding exceptional tolerance against thermal runaway."

Unlike conventional "jellyroll" Li-ion cell architecture, where energy density and safety can be in conflict, the Enovix 3D cell architecture incorporates multiple intra-cell features to improve electrical, physical and environmental abuse tolerance over conventional wound Li-ion cells. In addition to BrakeFlow, the Enovix cell architecture:

- Provides better Lithium Plating Protection over graphite anode cells due to a 100% active silicon anode (140mV higher lithiation potential[1])
- Enables hotspot reduction and heat dissipation due to excellent thermal conductivity (nearly 5X cell thermal conductivity compared to similar pouch cells[2]);
- Includes enhanced protection from physical abuse, including crush, pinch and nail penetration due to its mechanical internal constraint system; and
- Is designed to limit movement of the anode, cathode and separator due to internal "pinning," which is a known source of internal shorting in conventional Li-ion batteries.

"BrakeFlow ushers in a new level of safety in Li-ion battery design," said Cam Dales, GM and Chief Commercial Officer. "Adding BrakeFlow can significantly limit overheating during an internal shorting event, which is the primary cause of thermal runaway. Additionally, the mechanical robustness of our cell architecture allows customers designing for rugged environmental conditions to choose our high energy density pouch cells over lower energy density prismatic cells. This is just another example of what sets us apart from other advanced Li-ion battery manufacturers."

BrakeFlow technology will become part of the company's automatic tooling and production set at its Fremont factory, Fab-1. The company anticipates BrakeFlow will be available in its battery cells in 2023.

Learn more on our website at www.enovix.com/brakeflow or attend Ashok Lahiri's presentation, "Overcoming Generations of Innovation Roadblocks to Create and Commercialize the Next-Gen Lithium-ion Battery," on March 31, 2022 at 12:20 p.m., at the International Battery Seminar in Orlando, Florida.

**About Enovix**
Enovix is the leader in advanced silicon-anode lithium-ion battery development and production. The company's proprietary 3D cell architecture increases energy density and maintains high cycle life. Enovix is building an advanced silicon-anode lithium-ion battery production facility in the U.S. for volume production. The company's initial goal is to provide designers of category-leading mobile devices with a high-energy battery so they can create more innovative and effective portable products. Enovix is also developing its 3D cell technology and production process for the electric vehicle and energy storage markets to help enable widespread utilization of renewable energy. For more information, go to www.enovix.com.

**Forward Looking Statements**
This press release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, about us and our industry that involve substantial risks and uncertainties. Forward-looking statements generally relate to future events or our future financial or operating performance. In some cases, you can identify forward-looking statements because they contain words such as "believe", "will", "may", "estimate", "continue", "anticipate", "intend", "should", "plan", "expect", "predict", "could", "potentially", "target", "project", "believe", "continue" or the negative of these terms or similar expressions. Forward-looking statements in this press release include, but are not limited to, the design and performance of our lithium-ion battery solutions, our ability to enable new opportunities and launch new innovations with respect to our lithium-ion battery solutions, the timeline for integrating our BrakeFlow technology into Fab-1 and our battery cells and improvements in abuse tolerance. Actual results could differ materially from these forward-looking statements as a result of certain risks and uncertainties, including, without limitation, the risks set forth under the caption "Risk Factors" in the Form 10-K that we filed with the Securities and Exchange Commission (the "SEC") on March 25, 2022 and other documents we have filed, or that we will file, with the SEC. Any forward-looking statements made by us in this press release speak only as of the date on which they are made and subsequent events may cause these expectations to change. We disclaim any obligations to update or alter these forward-looking statements in the future, whether as a result of new information, future events or otherwise, except as required by law.

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[1] 0.22V vs Li/Li+ for Si; 0.08V vs Li/Li+ for Graphite

[2] Through-plane conductivity; Enovix 3.4Ah cell, 5.3mm thick, LCO cathode (3.3 W/m-K) vs 6.0Ah pouch cell, 6.7mm thick NMC cathode (0.732 W/m-K); verified by 3rd party engineering pack analysis

A photo accompanying this announcement is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/dfb43600-db43-4ed4-80c3-1f7e70791c16