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Austin could play major part in surge of domestic production for EV batteries, experts say

25 projects already circling region, chamber says

Tesla Inc. has suggested in state filings it will produce battery cells for its electric vehicles at its factory east of Austin. RealPhoto Inc.

In This Article

- Commercial Real Estate Industry
- Technology Industry
- John Boyd Jr. Person
- John Goodenough Person
- Ed Latson Person
- Elon Musk

By Kathryn Hardison – Staff Writer, Austin Business Journal – January 18, 2022

As demand for electric vehicles surges across the globe, companies are racing to secure a spot in the growing sector, from vehicle manufacturing to the all-important supply chain.

Batteries are among the most critical components in EV production. Most batteries are currently made overseas, though automakers are investing large sums to bring more manufacturing capabilities to the United States. Not only would that support domestic EV production, but it would cut supply chain costs and create more manufacturing jobs across the country.

Analysts expect domestic battery production to quadruple by 2025, according to AlixPartners data quoted by CNBC, and site selectors and economic development experts suggest Central Texas stands to be a landing spot for such projects.

Several experts said Tesla Inc.'s growing presence in the region, plus the area's research capabilities — the inventor of the lithium-ion battery, John Goodenough, is a professor at the University of Texas at Austin — are some of the reasons the metro stands to be a hotbed for the EV battery sector.

"Battery and EV-related projects are dominating the corporate site selection field today and the greater Austin market is a key national player," John Boyd Jr., principal at Boca Raton, Florida-based site selection firm The Boyd Company Inc., said in a statement.

A spokesperson with the Greater Austin Chamber of Commerce said in a statement that about 25 lithium-ion battery projects were being considered for the region. That includes projects in battery manufacturing for the automotive and renewable industries, battery pack assembly operations, battery recyclers and research and development centers.

At least 13 battery plants are expected to come online across the U.S. over the next few years, and a handful of companies have yet to announce a location for their projects, according to a December report from the U.S. Department of Energy. The projects are expected to be partnerships between automakers and energy companies, such as General Motors and LG Energy Solution.

Chart: U.S. Department of Energy on Dec. 20 published this list outlining 13 battery plant projects that are expected to come online by 2025.

New Battery Plants Announced by Vehicle Manufacturers as of October 25, 2021

Manufacturer	Location	Expected Opening
Ford	Northeast of Memphis, TN	2025
Ford & SK Innovation	Central KY	2025
Ford & SK Innovation	Central KY	2026
General Motors & LG Chem	Lordstown, OH	2022
General Motors & LG Energy Solution	Spring Hill, TN	2023
General Motors & LG Energy Solution	TBD	TBD
General Motors & LG Energy Solution	TBD	TBD
SK Innovation	Northeast of Atlanta, GA	2022
SK Innovation	Northeast of Atlanta, GA	2023
Stellantis & LG Energy Solution	TBD	2024
Stellantis & Samsung SDI	TBD	2025
Toyota	Southeast of Greensboro, NC	2025
Volkswagen	Chattanooga, TN	TBD

It was not clear if these companies were actively considering Central Texas. Media representatives with Stellantis NV (NYSE: STLA) and LG Energy Solutions declined to comment, and officials with Samsung SDI and General Motors Co. (NYSE: GM) did not return requests for comment.

But there's a strong case to be made for the Austin metro's future in the EV sector.

"Central Texas offers everything this sector needs to thrive: a strong, technical workforce, cutting edge thought leadership from the universities, and a growing electrical vehicle cluster," said Ed Latson, executive director of the Austin Regional Manufacturers Association. "As our industrial base continues to expand, it makes sense that significant battery providers will be part of our future."

Industry players in Austin metro

Austin's growing EV sector is now anchored by one of the biggest EV manufacturers: Tesla.

Tesla (Nasdaq: TSLA) relocated its headquarters to Austin late last year where it has a $1.1 billion gigafactory gearing up to start production. The company's investment is one of the biggest economic development projects in the region in recent years, with thousands of jobs expected and suppliers already moving into the region.

CEO Elon Musk announced in 2020 that the company plans to create its own 4680 cells — their dimensions in millimeters — that make up the battery packs used in its cars. Analysts have said

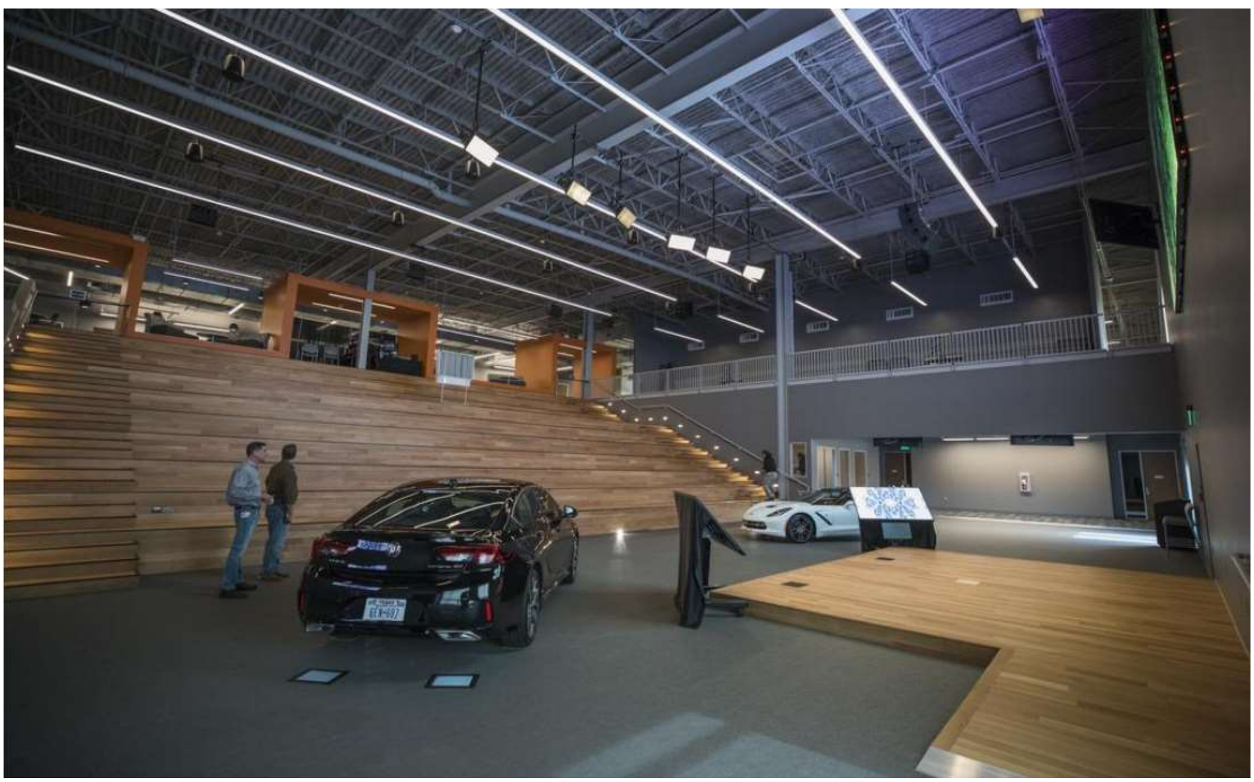
Tesla producing its own cells could significantly reduce its car production costs and vertically integrate the company. It currently buys batteries from Panasonic.

Musk has big plans for the Austin factory, which he said recently on Twitter will grow to a $10 billion-plus investment "over time" that will create at least 20,000 direct jobs and 100,000 indirect jobs. Tesla intends to produce its Cybertruck, Model 3, Model Y SUV and Semi tractor-trailer at the new facility.

Central Texas is also home to at least one battery supplier: Voltabox of Texas Inc. The company is located in Cedar Park, where it produces lithium-ion batteries for many uses, including electric buses for public transport, according to its website.

Puerto Rico-based lithium mining startup Energy Exploration Technologies Inc., known as EnergyX, has a research hub in the Texas capital. It is also has a licensing partnership with Goodenough.

And Austin is home to the largest of GM’s four IT Innovation Centers — major facilities that are tasked with creating next-generation cars.

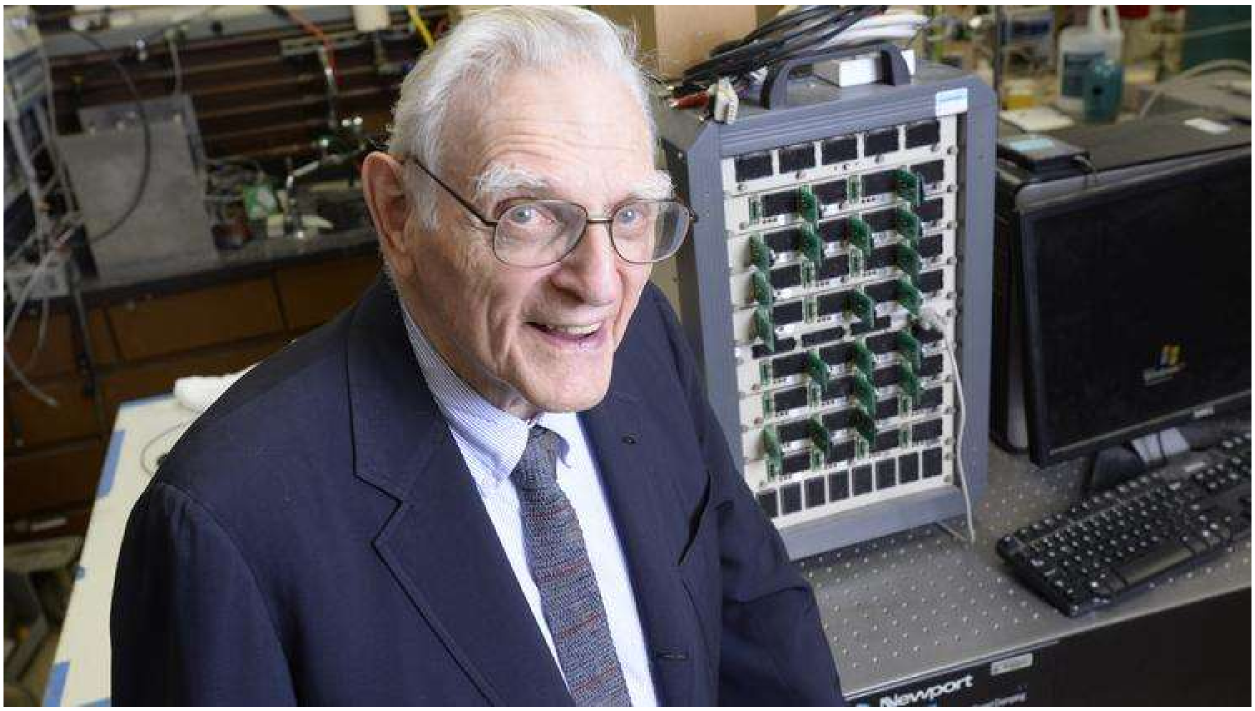


A peek inside General Motors' Austin Innovation Center, which employs thousands of people in North Austin. Arnold Wells/Staff

Battery research

Boyd said access to a top research university is a common thread in the site selection process for battery plants.

Not only does University of Texas at Austin have a research focus on energy materials, Goodenough won a Nobel Prize in 2019 for inventing the lithium-ion battery.



John Goodenough, University of Texas at Austin professor and one of the recipients of the 2019 Nobel Prize in chemistry, in 2015. *University of Texas at Austin*

"The research being done at the University of Texas, research and commercialization organizations such as Pecan Street and our deep talent pool, are all reasons the area is attractive to companies in the battery industry," a spokesperson for the Greater Austin Chamber of Commerce said.

San Antonio shouldn't be left out of this conversation, Boyd said, adding that the Southwest Research Institute is "world-renowned" in composites, battery and environmental testing and autonomous vehicle design. The institute has been a resource to automakers exploring the energy and EV space, such as Toyota Motor Corp. (NYSE: TM) and Navistar Inc., he said.

Central Texas' economic activity

Austin's continued economic boon is another reason companies may choose to invest in the area.

Many manufacturing projects are locating in the suburbs of Austin, where companies can find cheaper swaths of land and access to major highway systems.

“As we saw in the Samsung project going to Taylor, the search area for these EV-related projects is by no means defined by the ‘Austin City Limits,’” Boyd said. “In fact, our firm is seeing heightened interest in the entire I-35 corridor connecting Austin with San Antonio and increasingly in the … corridor just to the east, defined by State Highway 130.”

Boyd said communities such as Taylor, Hutto, Lockhart and Seguin will benefit from the activity happening along SH 130.

"All of these smaller markets benefit from lower real estate operating cost structures than Austin proper, less competitive hiring pressures and benefit from convenient access to SH 130," Boyd said. "Unfortunately, I-35 has gained the reputation of being one of the most congested major highways in the country due to the impressive growth rates and major business attraction successes of Austin, San Marcos, New Braunfels and San Antonio. "