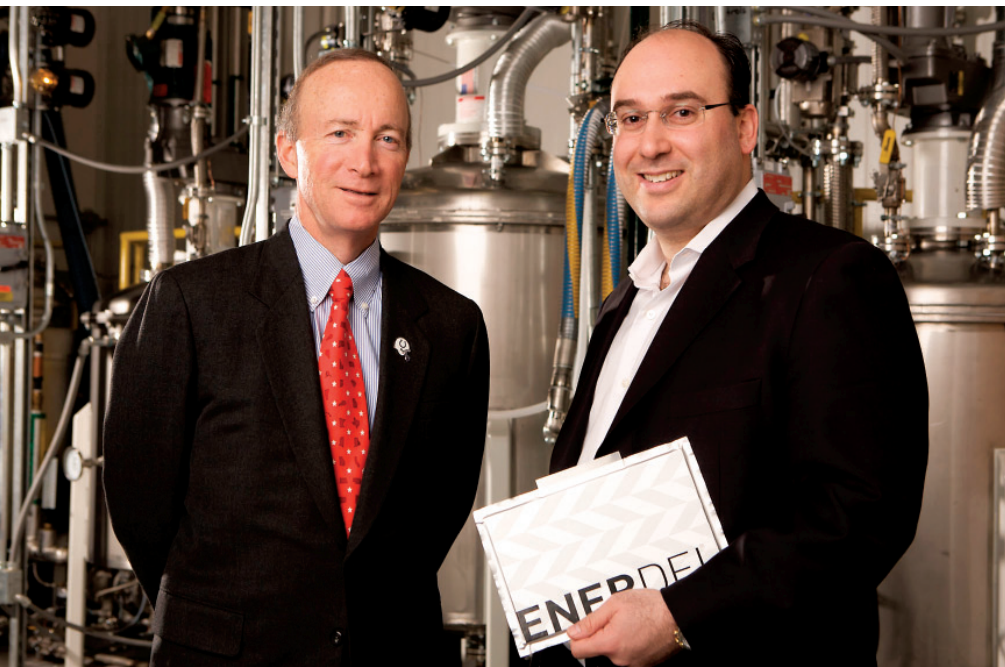


Indiana Leading the Nation in Vehicle Electrification



Indiana Governor Mitch Daniels and Charles Gassenheimer of EnerDel Inc. announced that battery maker EnerDel would expand, hiring 1,100 at a new \$277 million facility in the Indianapolis region.

When the Obama administration announced \$2.4 billion in federal stimulus grants aimed at accelerating the U.S. advanced battery and electric vehicle component industries in 2009, \$416 million went to Hoosier companies and universities focused on getting more advanced hybrid and plug-in vehicles on our highways.

Indiana was the second-largest recipient of funds, and for good reason. The state is a leader in developing and manufacturing plug-in vehicles and their components, and is laying the groundwork to be a major player in the world market for these technologies.

If plug-in electric vehicles are to become a practical solution to our nation's energy and environmental challenges, one of the biggest obstacles to be overcome is that

of integration. It's not just about the cars and their component parts; there must be places to plug them in, systems for billing consumers for charging, and ways to avert a massive energy drawdown if everyone decides to recharge at once.

In order to cement Indiana's role as the leader in vehicle electrification, Energy Systems Network (ESN) plans to roll out Project Plug-IN, a major pilot of plug-in electric vehicles and charging

infrastructure in the Indianapolis region. ESN is an initiative launched by the Central Indiana Corporate Partnership to create commercialization partnerships among private firms, research institutions and public agencies to bring new energy technologies to market.

Project Plug-IN will put more than 100 plug-in vehicles in service with commuters as well as government and corporate fleets across the Indianapolis metropolitan area. Charging stations are planned for Indianapolis International Airport, Simon Property Group retail centers and Denison Parking garages. Project participants Duke Energy and Indianapolis Power & Light hope to develop software for seamlessly billing customers who work in an area served by one and live in an area served by the other. The project will also test technologies that will automatically optimize charging vehicles during off-peak hours.

Indianapolis would be among the first U.S. cities to demonstrate the new technology prior to auto manufacturers bringing the cars to market. The project plans to use plug-in hybrids made by several manufacturers, including Norwegian car maker Think Global, which plans to manufacture U.S. models in Elkhart, Ind.

The intricacies of the project and the diversity of its participants explain why ESN is so important as a convener and catalyst. Project Plug-IN partners include EnerDel, Duke Energy, Indianapolis Power & Light, Think Global, Nissan, Smart USA, Navistar, Cummins, Delphi Corp., Bright Automotive, ITOCHU Corp., IBM, Simon Property Group, Midwest ISO, Purdue University, the city of Indianapolis, the state of Indiana and the Rocky Mountain Institute.

Collectively, these partners have received nearly a half billion dollars (\$490.4 million) in federal stimulus grant funding and are leveraging these awards through their collaborative effort.

"This shows we're one of the hotbeds for the development of these advanced technology vehicles — the next generation of cars and trucks," says Paul Mitchell, president and CEO of ESN.

Other ESN initiatives include the Hoosier Heavy Hybrid partnership and MicroGreen.

The Hoosier Heavy Hybrid partnership focuses on bringing more cost-effective light, medium and heavy-duty hybrid

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trucks to market. Two partners, Delphi Automotive Systems LLC and Allison Transmission Inc., have received \$89.3 million and \$62.8 million respectively in federal grants for developing electric vehicle components.

Delphi plans to expand its power electronics engineering capabilities and to establish a new manufacturing operation in Kokomo, Ind. It matched the government funds to bring to \$178.6 million its investment in low-cost manufacturing of electric-drive vehicles. Among the first products expected to be manufactured at the new facility will be power electronics components and systems for Allison, which announced in late 2009 that it had entered into a long-term agreement with Delphi to advance the production of medium-duty hybrid trucks in the U.S.

“It’s very encouraging that companies that have traditionally been in the passenger car business are now moving into developing products for medium- and heavy-duty trucks — things like FedEx delivery trucks, garbage trucks or

even semis,” says Mitchell. “My hope is the grant money provides the liquidity to help accelerate Hoosier Heavy Hybrid and ensure that Indiana is the leader in hybrid truck development as well as in advanced technology vehicles across the board.”

ESN’s MicroGreen project seeks to develop a distributed power generation microgrid system to provide scalable power for military and commercial markets, including back-up power for renewable energy developments. Testing, evaluation and product demonstration will occur at the Crane Naval Surface Warfare Center in southwest Indiana.

Indiana’s aspirations for becoming a major player in vehicle electrification are built on a strong foundation. The first electric car, GM’s EV1, was engineered here, and the talent that created it is still resident. The pioneering engineers are now working for Delphi, Allison, Remy, EnerDel and Bright Automotive to create the next generation of electric vehicles. Their work is still creating new economic opportunities today — illustrated by the tremendous growth of Indianapolis-based EnerDel.

EnerDel, the only U.S. manufacturer of advanced lithium-ion batteries for hybrid

and plug-in electric vehicles, received a \$118.5 million grant in August, 2009. Along with matching private capital, the grant will be used to more than double EnerDel’s production capacity, including the expansion to a third manufacturing facility in Hancock County just east of Indianapolis, along with the creation of 1,400 total new jobs in the region.

“The Department of Energy is pleased to officially make these funds available to support EnerDel’s aggressive growth plans,” said Gil Sperling, senior advisor to the Office of Energy Efficiency and Renewable Energy during a visit to the region in 2010. “This grant advances two of the administration’s key goals — putting Americans back to work and putting a million plug-in hybrids on U.S. highways by 2015.”

“We’re also enthusiastic about the spirit of collaboration that’s brought together Project Plug-IN,” added Sperling. “We regard it as a national model for how the public sector, manufacturers, utilities and other partners can work together — and leverage federal funding in the process — to make plug-ins a practical choice for the American driver.”

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