

Indiana Startup Finalizes Roadway Generator to Help Lower Energy Costs and Solve Intermittency Challenges

Energy Road and Blichmann Engineering move into final testing phase for traffic-powered energy system

WEST LAFAYETTE, IN, UNITED STATES, May 20, 2025 /EINPresswire.com/ -- Indiana-based startup

“

Volty offers a scalable, cost-effective energy solution that taps into existing traffic infrastructure — providing a steady, local power source that supports a more resilient and decentralized grid.”

Dr. Kelly Cole

[Energy Road](#) is entering the final engineering phase of its innovative roadway electric generator — a technology built to help local governments, parking garage operators, and other organizations lower electricity costs and address renewable energy intermittency by integrating directly into existing roadways.

Developed with Blichmann Engineering, the Energy Road team is preparing for its first public pilot later this year with the City of West Lafayette, IN. The system, called Volty, installs like a traditional speed hump. But unlike its passive counterpart, Volty converts the pressure from passing

vehicles into electricity using a closed-loop hydroelectric system. It’s designed to double-serve: traffic-calming infrastructure that pays for itself.

“With energy prices rising and renewables often falling short during peak demand, cities need dependable alternatives,” said Dr. Kelly Cole, founder of Energy Road. “Volty offers a scalable, cost-effective energy solution that taps into existing traffic infrastructure — providing a steady, local power source that supports a more resilient and decentralized grid.”

SOLVING COST AND RELIABILITY FOR CITY ENERGY

Energy Road is focused on high-traffic zones — such as hospitals, industrial campuses, municipal roads, and public-private sites — to help cities reduce utility costs while cutting emissions.

The Volty system is in final testing at Blichmann’s Lafayette facility, where engineers are optimizing pressure dynamics and energy yield ahead of installation. Once deployed, a single unit is expected to generate up to 267 kWh with 8,000 cars per day, offsetting the daily electricity

use of nearly 10 homes.

At a conservative net metering rate of \$0.16/kWh, each unit produces about \$42 in daily energy value, yielding a 62% annual ROI with a 1.6-year payback period. The system scales linearly, allowing cities to expand output and savings by adding more units across their roadway network.

Volty also helps cities address energy intermittency — the gaps when solar and wind underperform — by providing consistent power tied to predictable vehicle traffic.

BUILT FOR CITY STREETS AND BUDGETS

Volty is modular, self-powered, and easy to integrate into public infrastructure. Multiple configurations are available, including:

A traditional speed-hump model for traffic calming zones

A flatter, low-profile version optimized for higher-speed or heavy traffic locations

VOLTY IS IDEAL FOR POWERING:

Streetlights

Traffic signals

Public EV chargers

Government buildings and parking lots

Hospitals, and schools

Airport parking garages

Inner city roads with steady vehicle flow

“Every city has a street that could be doing more,” said Rhys Dale, co-founder of Energy Road.



Energy Road's roadway electric generator pilot in testing at Blichmann Engineering

“Volty helps cities maximize their roads — without expanding their footprint.”

The system requires no external fuel, operates independently from the grid, and serves as a visible, measurable, and emissions-reducing tool for cities ready to modernize their infrastructure.

PILOT PROGRAMS AND PARTNERSHIP OPPORTUNITIES

Energy Road is currently seeking city and county partners to pilot Volty installations in Indiana, the Midwest, and California. Cities or agencies interested in piloting Volty can contact Dr. Kelly Cole at Kelly.energyroad@gmail.com or visit: Energy Road

ABOUT ENERGY ROAD

Energy Road is a clean-tech infrastructure startup based in Indiana. Its flagship product, Volty, transforms vehicle traffic into grid-compatible electricity using modular roadway generators. Volty is designed for local governments and other organizations seeking energy savings, infrastructure efficiency, and scalable climate solutions — one speed hump at a time.

Energy Road has participated in the Gener8tor Future of Mobility and Techstars Climate and Sustainability pre-accelerator cohorts. The company is working in partnership with the City of West Lafayette, where Volty will be installed on Kalberer Road to power pedestrian lighting following final testing at Blichmann Engineering.

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