Policy Matters Ohio

Sustainable Communities
April 2013

Green Electricity and Transportation (GET) Smart

Policy solutions to increase energy independence

Amanda K. Woodrum

Executive summary

Ohioans spend a large amount of money on energy. In 2010, we spent $45 billion, nearly 10 percent of our state's gross domestic product.[1] Nearly half of those energy dollars (or more than $20 billion) was spent to fuel cars, trucks, and buses, and nearly all of which left the state or country in order to import oil. Ohio can reduce its dependence on imported oil by promoting electric vehicles (EVs) and buses, as well as passenger and freight rail.

Key findings

- Ohioans spend 10 percent of state gross domestic product on energy, half on transportation; 98 percent of the oil we use is imported.
- States have adopted policies to drive demand for electric vehicles and reduce petroleum dependency.
- Ohio is well positioned to be a key player in the EV supply chain, but other states are working harder to develop this new industry.
- Several Ohio communities, including Oberlin, Cincinnati, Cleveland, and Cuyahoga Falls are using municipal aggregation and municipal utility power to increase use of local clean energy, thus keeping energy dollars local.

Positive policy changes, market trends are driving demand for electric vehicles.

Federal Corporate Average Fuel Economy (CAFE) standards will drive production and adoption of EVs. California adopted similar technology-driven standards, which will lure manufacturers of EV technology to the state.

If consumers demand EV technology, somebody will need to manufacture it. Ohio is well positioned to be a key player in the EV supply chain if the state promotes early adoption of this technology. Other states, however, are working harder to develop this new industry. In 2012, Californians bought one-third of all electric vehicles, in large part because of strong local incentives. Ohio currently has none.

Federal and state incentives, as well as state fleet requirements help drive demand. Of course, incentives should only be implemented with strong standards and accountability. The federal income tax credit for plug-in electric vehicles (PEVs) ranges from $2,500 to $7,500. A number of other states offer additional incentives. Pennsylvania, for instance, offers residents $3,500 in rebates for EVs. The majority of states favor alternative fuel vehicles over conventional fuel vehicles in their procurement process. In the past, the Ohio Department of Transportation has supported green transit vehicle adoption with the use of flexible federal funds allocated to the state.

Investments in electric vehicle infrastructure reduce barriers by ensuring greater availability and convenience of charging stations. Electric-car maker Tesla plans to build a nationwide network of solar "supercharger" stations. Ford has been working on a joint project with the solar manufacturer SunPower to provide solar panels to EV owners for home charging. The Drive Electric Ohio

[1] Energy Information Administration, Energy Prices, and Expenditures.

initiative has been working to map existing infrastructure and identify key locations for future infrastructure development.

Policy changes, market trends translate into homegrown electricity from cleaner energy resources to fuel our cars and trucks in the future.

Ohio's clean energy laws require that 25 percent of electric generation come from advanced energy resources by 2025; half must be generated in state. Ohio utility companies also must achieve a 22 percent reduction in overall energy use by 2025.

Low natural gas prices, due in part to shale gas production in the state, will affect Ohio's electricity mix, increasing use of homegrown energy and thereby reducing emissions. Natural gas burns cleaner than coal, and natural gas power plants are also more efficient. If 30 percent of Ohio power was generated from natural gas and 12.5 percent from renewable energy sources, we estimate that emissions from Ohio's electric power sector would be 33 percent lower.

Smart local policies are increasing use of renewable energy from local resources. Exciting examples include aggregated green power purchase in Cincinnati, the community-wide green development effort in Oberlin, Sustainable Cleveland 2019, and the city of Cuyahoga Falls' Community Energy Strategic Plan. In these cities, PEVs will be running on up to 100 percent clean power, much of it from domestic resources.

Green Electricity and Transportation (GET) Smart policy solutions can help cities build on these positive trends toward energy independence.

Cities can adopt **complete street policies** to be accessible to all modes of transportation, including walking, biking, mass transit, and EVs.

Public power, local government, and planning officials should participate in **Drive Electric Ohio,** a statewide stakeholder network organized by Clean Fuels Ohio, made up of public and private stakeholders, designed to identify and address major barriers to travel via EVs. One excellent resource for this collaborative could be the new statewide network of Ohio's metropolitan planning organizations. Among other issues, MPOs should help finance EV infrastructure projects.

More communities should take advantage of their potential for energy self-reliance. They can do so by using their **municipal aggregation or utility powers** to procure homegrown energy from clean sources, which Cincinnati and Oberlin have done, and Cleveland is now doing.

The state of Ohio can support local GET Smart efforts and the development of the state's electric-vehicle supply chain.

There are several opportunities that will help Ohio reach these goals:

- **Create a Transportation Choice fund** in Ohio's transportation budget. By 2030, ramp funding up to 10 percent of the state's multi-billion dollar transportation budget;
- **Expand Ohio's Advanced Energy Fund** and using it to provide grants, rebates, vouchers, and low-interest loans to promote EV adoption;
- **Protect and expand Ohio's clean energy laws**;
- **Identify existing Ohio manufacturers** that can participate in the EV supply chain, helping them retool to meet the needs of this industry, and investing in related research and development.