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Petroleum consumption casts shadow on energy sustainability

By Nancy Cook Lauer

HILO — While Hawaii Island is a state leader in sustainable electricity production, it's woefully lacking in another important component of self-sufficiency — transportation sustainability.

That's according to a draft report the Kohala Center prepared for Hawaii County. The Energy Sustainability Five-year Roadmap is available for public review and comment at hawaiienergyplan.com.

The transportation sector accounts for 52 percent of the island's energy use — and that doesn't include the thousands of gallons of aviation fuel imported to the island to feed the all-important tourism sector. The report makes numerous recommendations on how the county can do more to promote fuel sustainability, but it doesn't at all address jet fuel.

Hawaii County Energy Coordinator Will Rolston said the connection between tourism, economic development, and energy and food sustainability is an issue addressed at the state level, and the county has a seat at the table. Among the groups with Hawaii County representatives are the Hawaii Energy Policy Forum and the Hawaii Clean Energy Initiative Steering Committee. In addition, the county regularly provides testimony on cases on the state Public Utilities Commission docket, he said.

"When you're talking about energy, you're basically talking about everybody," Rolston said Wednesday. "Although we didn't have that in our current report, we're acutely aware of the linkage between tourism, jet fuel and our economy."

The good news is in the electricity sector. Renewable energy generated from geothermal, hydropower, wind and solar accounted for more than 37 percent of electricity production in 2011, on track to exceed statewide goals for 2030. But that's just 5 percent of the island's total energy use, the report says.

"Despite the successes of the past 30 years, today the island remains overwhelmingly dependent on imported petroleum fuels," it concludes.

In 2010, Hawaii Island residents used more than 100 million gallons of gas and diesel fuel for ground transportation, about 74 percent more per capita than Oahu. Gasoline consumption alone exceeds 200,000 gallons per day. The island's size, rugged terrain and high number of pickup

trucks, vans and SUVs contribute to the lowest average gas mileage in the state — less than 17 miles per gallon — the report says.

Hawaii Island has special challenges because people tend to keep their cars longer than in other places, with a total turnover of the entire stock of the island's cars taking more than 25 years. Fewer than 1 percent of registered taxable vehicles on the island are hybrid or electric.

"The limited availability of electric vehicles on the market and the slow turnover of the island's vehicle stock indicate that a transportation system running on sustainable energy will depend on the availability of alternative fuels such as biofuels that can run in conventional vehicle engines," the report states.

There are many things the county government could do to decrease public gas consumption, according to the report.

Making the Hele-On bus system an alternative for commuters by increasing routes, reliability and educating the public about its availability is one recommendation. The county could also raise the fuel tax for fossil fuels to encourage conservation, it could institute a Complete Streets program to make alternative transportation such as bicycling safer and it could institute tax credits for vehicle charging stations and renewable fuel.

County government could also set an example, the report says. That's something Mayor Billy Kenoi started with the county purchase earlier this year of five black Chevrolet Volts for $234,536. Kenoi said he wanted the county to lead by example in purchasing and using the hybrid vehicles, which can be charged at the West Hawaii Civic Center at no additional cost to the county. The power stations will be charged by the photovoltaic system installed on the county's parking garage.

The county spent more than $35 million on electricity and fuel for its own operations last year. The bulk of that — $19 million — was spent by the Department of Water Supply on electricity. The remainder of government operations required more than $15 million in energy purchases, divided almost evenly between electricity and gas for transportation and equipment.