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OU's Dessert, Sen. Bishop Conduct Fuel Trial

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Could an oil treatment be the solution for fuel efficiency and perhaps save the state of Michigan millions of dollars?

An innovative collaboration between the Product Development and Manufacturing Center at Oakland University (PDM), State Sen. Mike Bishop, R-Rochester, and Palm City, Fla.-based Advanced Lubrication Technologies has yielded an oil treatment that shows such promise.

PDM offers programs that are designed to bring groundbreaking technologies to auto companies, suppliers and transit companies to improve cost. Started in 1997, the center has been working on projects and programs to create possible solutions to reduce our dependency on foreign oil.

In fact, Dr. Patrick Dessert, director, PDM, has made it his mission to find alternative fuel sources and ways to stretch current oil supplies.

“When I first sat down with Dr. Dessert, I was impressed. He wasn’t looking for funding, but instead sought to bring tested ideas to the state to help save money,” Bishop said.

According to the Energy Information Administration, the world’s consumption of energy is projected to increase by 60 percent in the first 20 years of the 21st century.

Dessert said solving the economic, political, and environmental problems linked to our

country's dependency on the internal combustion vehicle is of an urgent nature.

PDM applies Systems Engineering principles to understand the "big picture" and create solutions that optimize the entire system instead of individual components.

PDM has identified three major initiatives that are necessary to solve the nation's fuel economy problems.

The first initiative is that engineering is needed to optimize alternate fuel vehicles. As fuel sources of vehicles change, alternate fuel is being sought to match the challenge of making a vehicle powered by different fuels like diesel or electrical.

The second initiative is conservation of current oil supplies, as we "buy time" until alternatively-powered vehicles, such as hydrogen fuel cells, become cost effective, which may take years to achieve.

Dessert added that this particular initiative is most crucial today because tensions in the Middle East could escalate further and cut off U.S. oil supplies altogether.

The final initiative is locating sources of alternative fuels, such as ethanol, methanol, hydrogen, bio-diesel and other fuels that could replace oil. Dessert is now conducting exploratory research in that area with the Three Rivers Solid Waste Authority at the Department of Energy's Savannah River site in South Carolina.

Once the initiatives were identified, Dessert and PDM teams began to experiment using over-the-counter oils and fuel treatments, including those which are hyped on late-night infomercials, to see if the specialized treatments truly work.

The treatments were put through several experiments and all but a few failed. One, however, worked unbelievably well, Dessert said.

The Motor Silk Oil Treatment created by Advanced Lubrication, delivered the results that Dessert and his team were looking for, and not the "snake oil imitations with their wild science fiction type explanations," Dessert quipped.

In short, the oil treatment reduces build-up of additives, Dessert said, which can ultimately cause friction and harm to engine parts. Less additive build-up eventually translates into fewer oil changes.

Dessert then asked Bishop how the PDM research might be used in the state of Michigan's automotive fleet to reduce costs associated with routine maintenance and fuel consumption, and environmental friendliness.

Bishop was convinced that savings existed, but he knew he had to convince his colleagues. So the first-term senator volunteered his own car, a 2001 Lincoln LS, as a demonstration mule for the PDM-Advanced Lubrication oil treatment.

Dessert first spent weeks “base-lining,” which is the process of getting the vehicle ready for the process of tracking fuel consumption, oil quality and emissions.

Once that base line was established, Dessert added the oil treatment. In a matter of just six days, the senator’s fuel economy improved by 8 percent, which translates into an annual savings of about \$500 in fuel and maintenance costs.

Application of the technology on the state fleet, however, could save Michigan millions of dollars. Bishop is now trying to connect state officials with the PDM. But for now, Bishop continues to test other PDM technologies on his own car as commutes between Lansing and Metro Detroit.

Dessert, meanwhile, continues to monitor the positive results. He hopes Michigan politicians get wind of the research that’s going on in their own backyards.

“A lot of our leadership, particularly a couple of senators that have been here for a long time, have done nothing to help the automotive industry,” Dessert remarked.

“Automotive companies have left the state because of them and it’s about time that someone stands up and says, I’m going to help keep it here,” Dessert said of Bishop’s action.

A recent meeting between Bishop, Dessert and the Michigan Department of Transportation shows promise, he said. Several automotive companies have also expressed an interest, Dessert said, but he refused to elaborate.