

## **Energy Efficient, Low Emission Powertrain Systems**

### **GM Powertrain Fuel Cell Activities**

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Today's vehicle powertrains are 96% reliant on petroleum derived fuels, much of which is imported from relatively few regions of the World. Nations are placing strict limits on CO<sub>2</sub> emissions and energy markets have experienced significant fuel price volatility.

Global growth is increasing the size of the vehicle parc. Therefore, future advanced propulsion systems must simultaneously: improve energy efficiency, lower emissions, and diversify fuel sources. These competing requirements are encouraging rapid technological advancements. Never before have so many advanced propulsion technology alternatives been available at one time. Powertrain developers must make strategic decisions to invest scarce resources and to quickly promote new technologies through multiple learning cycles, which are necessary to reduce product costs. This session explores some of the diverse directions that powertrain systems are taking, as solutions to global energy and emissions challenges.