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Detroit Ambulance Fleet to Lead the Nation in Going Green

- *DFD will be first major city to deploy idle-reduction technology units on ambulances*
- *Units will save fuel, reduce emissions and reduce wear and tear on EMS rigs*

DETROIT, Sept. 15, 2015 –The City of Detroit ambulance fleet is preparing to go green. This summer, the City of Detroit commenced a partnership with [NextEnergy](#) and [Navitas Systems](#) on a funded program to retrofit 31 city ambulances with auxiliary power units (APUs), which will save the City money and improve air quality. The upgrades are funded by a recent \$1 million grant from the Michigan Department of Transportation's (MDOT) Congestion Mitigation and Air Quality (CMAQ) program.

Equipping nearly its entire fleet with this technology will put the Detroit Fire Department – EMS Division at the forefront among fire departments nationwide in the effort to reduce fuel consumption and carbon emissions. Installation of the APUs is expected to begin October 1 and be completed by spring 2016.

“The Detroit Fire Department is in the midst of upgrading its entire fleet of vehicles – from fire engines, to rescue squads and ambulances – and we are proud that we will be leading the way for other departments nationally in the use of this new technology,” said Detroit’s Executive Fire Commissioner Edsel Jenkins. “Outfitting our fleet of ambulances means we will be able to promote better community health by reducing harmful emissions and generate significant savings through reduced fuel consumption.”

A standard truck engine consumes between one half and one gallon of fuel per hour during idling. Ambulances typically idle for approximately 30 minutes while attending to an emergency. Leaving the engine running provides the energy necessary to power lighting, communications, heating/air conditioning, and onboard medical equipment. The same amount of time is spent idling at a hospital. In both locations, significant pollution is generated, which can adversely affect medical staff and patients alike.

Here’s how the new system works: The PowerForce™ idle reduction battery system, manufactured by Navitas Systems, allows ambulance operators to run auxiliary equipment with the main engine off. This

will reduce idling time, conserve fuel and reduce pollution. By reducing the time an ambulance spends idling, the APUs also will extend its life expectancy by reducing wear and tear on the engine, Jenkins added.

The City of Detroit partnered with NextEnergy, one of the nation's leading business and technology accelerators, to engage Michigan-based Navitas Systems, LLC to implement the new technology.

"This is the nation's first deployment of an idle-reduction system for a major city's ambulance fleet," said Alan ElShafei, chairman and founder of Navitas Systems. "The new technology comes at no cost to the City of Detroit and will save more than 800 tons of carbon dioxide equivalent emissions and an estimated \$2 million over the life of the auxiliary power unit deployment. The grant funding also includes data monitoring which will help the City gather information about their fleet."

The PowerForce solution consists of a set of Navitas Ultanium™ Group 31 deep-cycle lithium batteries, a battery-powered heating and air-conditioning system, and electronics which provide usage information to both the driver and the fleet manager. The system includes voltage sensors to automatically turn the engine on during a low state of charge.

"Our goal is to enable and accelerate the implementation of advanced energy technologies," said Jean Redfield, president and CEO of NextEnergy. "When we identified Navitas Systems, we became particularly interested in adapting the battery systems they'd created for military applications for use in the public and private sector. It's certainly a bonus that we are able to kickoff the new technology in Detroit."

Navitas Systems specializes in advanced energy storage products and power electronics for commercial, industry and government agencies. The company is currently expanding its operations in Michigan with a focus on green initiatives.

About NextEnergy:

Founded in 2002 as a 501(c)(3) nonprofit organization, NextEnergy is one of the nation's leading accelerators of advanced energy technologies, businesses and industries. NextEnergy drives technology demonstration and commercialization; delivers industry and venture development services; and provides an authoritative voice in the public sector. Since its inception, NextEnergy has helped attract more than \$1.4 billion of new investment in the state of Michigan, including programs in excess of \$160 million in which NextEnergy has directly participated. For more information, visit nextenergy.org.

About Navitas Systems, LLC

Navitas Systems is a leader in integrated design, technology development, and manufacturing of innovative energy-enabled system solutions and energy storage products for commercial, industrial and government agency customers. Navitas Systems products range from customized energy storage solutions for motive, idle-reduction and defense related applications, along with custom renewable energy integrated power systems, to standard products like lithium based lead-acid replacement batteries. Our ruggedized lithium energy storage products are the perfect choice for any high-performance multi-cell battery application that requires lower weight, reduced volume, massively increased cycle life, higher efficiency, and environmental durability.

Navitas is headquartered in a state-of-the-art 100,000 square foot facility in Woodridge, Illinois. In early 2012, the company acquired the Government Solutions Group of lithium battery manufacturer A123

Systems. With this acquired major research facility located in Ann Arbor, Michigan, along with strong local and offshore partners and solid financial stability, Navitas is well positioned to continue serving the energy products and power electronics needs of major worldwide customers.

From advanced R&D, safe/high energy cell design, in-house electronics manufacturing and cable assemblies, to sophisticated battery pack assembly, Navitas Systems is your one-stop shop for comprehensive energy and power electronics solutions. For more information visit www.navitassys.com and follow @Navitas_Systems on Twitter.

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