

# GE and Chesapeake Energy Corporation Announce Collaboration to Speed Adoption of Natural Gas as Transportation Fuel

Initiative Targets Natural Gas Fueling Infrastructure Development Agreement Designed to Develop Products and Services for Compressed Natural Gas (CNG) and Liquefied Natural Gas (LNG) Transportation and Home Fueling Solutions Chesapeake to Deploy More than 250 of GE's ecomagination™-Qualified "CNG In A Box™" Fueling Systems across the United States through 2015 through its Affiliate, Peake Fuel Solutions

HOUSTON--(BUSINESS WIRE)-- GE (NYSE: GE - News) and Chesapeake Energy Corporation (NYSE: CHK - News) today announced a collaboration to develop infrastructure solutions that will help accelerate the adoption of natural gas as a transportation fuel. This groundbreaking technology and services project marks a significant milestone toward increasing energy independence in the United States through the increased use of natural gas—an abundant, reliable and cleaner-burning source of energy for both consumers and commercial users.

To formalize the agreement, GE and Chesapeake have signed a memorandum of understanding on a product and services development partnership, representing a multi-year collaboration between the two companies to develop and bring to market compressed natural gas (CNG) and liquefied natural gas (LNG) transportation and natural gas home-fueling solutions. By improving access to CNG, which is most commonly used in light- to medium-duty vehicles such as pickups, vans, SUVs, taxicabs, transit buses, refuse and delivery trucks as well as consumer vehicles, along with LNG, which is commonly used for heavy-duty industrial purposes, dependence on foreign energy sources can be reduced while simultaneously lowering fueling costs and vehicle emissions.

The collaboration is designed to leverage GE's global Oil & Gas technology portfolio with Chesapeake's expertise in developing innovative fueling solutions to lower the ownership and operational costs of natural gas vehicle (NGV) fueling stations. With the development of shale resources dramatically increasing the amount of low-cost natural gas in North America, the GE-Chesapeake collaboration can help incentivize operators to put more NGVs on the nation's highways.

As part of today's announced collaboration, beginning in the fall of 2012 GE will provide more than 250 modular and standardized CNG compression stations for NGV infrastructure. These units, also known as "CNG In A Box  $^{\text{\tiny M}}$ ," have gone through GE's rigorous ecomagination-qualification process and will provide the core infrastructure to enable expanded access to CNG at fueling stations and other designated installations.

A vehicle using CNG can reduce annual fuel costs up to 40 percent, assuming 25,700 miles per year driven, gasoline priced at \$3.50/gallon and CNG at \$2.09/gasoline gallon equivalent. This represents savings totaling as much as \$1,500 per fleet vehicle per

year. In total, for each fleet vehicle using fuel provided by CNG In A Box instead of gasoline, a fleet operator can reduce CO<sub>2</sub>e emissions from fuel combustion by about 24 percent, or 2.2 metric tons per vehicle annually, assuming an average fleet vehicle travels approximately 25,700 miles per year.

"Both GE and Chesapeake are known for taking on tough energy challenges and putting the best minds and technologies to work to develop solutions," said Aubrey K. McClendon, Chesapeake's Chief Executive Officer. "The partnership announced today between GE and Chesapeake's affiliate, Peake Fuel Solutions, combines Chesapeake's natural gas expertise with GE's extensive global manufacturing capabilities and will bring transformative products to industries and individual consumers across the U.S. These products and services will allow customers to enjoy the clear advantages of clean, affordable and abundant American natural gas at about half the cost of gasoline."

Said GE Energy President & CEO John Krenicki, "GE is fundamentally committed to natural gas—our technologies help extract it, move it and turn it into power, whether it's highly efficient gas turbines delivering electricity at the utility scale or, in the near future, a vehicle at a refueling station. What makes this project particularly exciting is that it paves the way to taking the immense reserves of natural gas being discovered in the U.S. and using them right here in the U.S. That paves the way for faster economic growth, energy security, more jobs and reduced environmental impact."

This CNG technology will be brought to market by Peake Fuel Solutions—a Chesapeake affiliate—which has extensive experience with natural gas vehicles, vehicle emission controls and natural gas market dynamics. Chesapeake also brings considerable inhouse expertise in CNG market development to the GE collaboration, including retail station relationships, fleet outreach and education programs and policy engagement.

CNG In A Box takes natural gas from a pipeline and compresses it on-site at an industrial location or at a traditional automotive refilling station to then turn it into CNG. A CNG vehicle, such as a taxi, bus or small truck, can then refill its tank using a traditional fuel dispenser, much like those used for diesel or gasoline refueling.

### Key features include:

- The gas compression, storage, cooling, drying and controls are easy to ship and maintain due to its compact "In Box" design.
- The units come in two configurations: an 8 foot x 20 foot container or 8 foot x 40 foot container, depending on the site's need.
- Its modular and intuitive design makes it "Plug & Play" on-site.
- The offering includes GE Wayne branded dispensers with credit card capability and provision for "Point Of Sale" interface.
- The fuel dispenses at a rate of about 7 gasoline gallon equivalent per minute.

### Other elements of the new collaboration include:

- Aftermarket services for natural gas fueling infrastructure.
- GE's LNG fueling plants, which adapt GE's proven large-scale LNG liquefaction technologies to smaller-scale operations. Using LNG as a substitute for diesel or fuel oil can reduce combustion emissions up to 25 percent.
- Development of home refueling technologies.
- Co-marketing of products and services resulting from the partnership.

#### About GE

GE (NYSE: GE - News) works on things that matter. The best people and the best

technologies taking on the toughest challenges. Finding solutions in energy, health and home, transportation and finance. Building, powering, moving and curing the world. Not just imagining. Doing. GE works. For more information, visit the company's website at <a href="https://www.ge.com">www.ge.com</a>.

GE Energy works connecting people and ideas everywhere to create advanced technologies for powering a cleaner, more productive world. With more than 100,000 employees in over 100 countries, our diverse portfolio of product and service solutions and deep industry expertise help our customers solve their challenges locally. We serve the energy sector with technologies in such areas as natural gas, oil, coal and nuclear energy; wind, solar, biogas and water processing; energy management; and grid modernization. We also offer integrated solutions to serve energy- and water-intensive industries such as mining, metals, marine, petrochemical, food & beverage and unconventional fuels.

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### **About Chesapeake Energy Corporation**

Chesapeake Energy Corporation (NYSE: CHK - News) is the second-largest producer of natural gas, a Top 15 producer of oil and natural gas liquids and the most active driller of new wells in the U.S. Headquartered in Oklahoma City, the company's operations are focused on discovering and developing unconventional natural gas and oil fields onshore in the U.S. Chesapeake owns leading positions in the Barnett, Haynesville, Bossier, Marcellus and Pearsall natural gas shale plays and in the Granite Wash, Cleveland, Tonkawa, Mississippi Lime, Bone Spring, Avalon, Wolfcamp, Wolfberry, Eagle Ford, Niobrara and Utica unconventional liquids-rich plays. The company has also vertically integrated its operations and owns substantial midstream, compression, drilling, trucking, pressure pumping and other oilfield service assets directly and indirectly through its subsidiaries Chesapeake Midstream Development, L.P. and Chesapeake Oilfield Services, L.L.C. and its affiliate Chesapeake Midstream Partners, L.P. (NYSE: CHKM - News). Further information is available at <a href="https://www.chk.com">www.chk.com</a> where Chesapeake routinely posts announcements, updates, events, investor information, presentations and news releases.

## **About ecomagination**

ecomagination is GE's business strategy to help customers meet their environmental and operational challenges. It is based on GE's belief that solving environmental problems is good business around the world. It represents a pledge by the company to continually improve operations and invest in research and development that will produce more innovative ecomagination products. Through ecomagination, GE is driving a global energy transformation with a focus on innovation and R&D investment to accelerate the development and deployment of clean energy technology.

### **About Peake Fuel Solutions**

Peake Fuel Solutions (PFS) advances innovative fuel solutions with products and services that create demand for clean, affordable natural gas. A significant focus of PFS is to increase compressed natural gas (CNG) and liquefied natural gas (LNG) infrastructure across the U.S. Other PFS projects include development of on-road and off-road technologies that reduce emissions and dramatically cut fuel expenses for the trucking, maritime, rail and oil and gas industries. An affiliate of Chesapeake Energy Corporation, PFS leverages the expertise of other Chesapeake affiliates to implement many of its fuel solutions. Further information is available at <a href="https://www.chk.com">www.chk.com</a>.

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