



U.S. Department of Energy



Stakeholder Newsletter 2014

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Carter Machinery Company, Inc.







Winter Propane Inventory

Winter 2014 has been one of the coldest to date. Snowstorms and freezing temperatures in the Midwest and Northeast have led to a temporary increase in propane use for the millions of Americans who use the fuel to heat their homes. Propane providers are working extra hours and rushing to meet consumer demands, but this winter depleted many inventories and snowfall has made delivery difficult for some areas. To make matters worse, the high demand for the heating fuel has driven the wholesale price up.

While there has been a shortage and price increase for propane, these issues exist due to a higher demand than propane providers were anticipating this winter. For concerned autogas fleets, this temporary shortage does not mean that all propane supplies have been permanently depleted, nor are prices expected to remain at their current high. *Propane autogas is still less expensive than*



gasoline and diesel and Virginia is experiencing little to no disruption or logistical challenges.

As to when the propane market will recover, that depends on the weather. For now, propane customers are asked to arrange for a delivery when their tanks read 35% and to try to conserve current supplies.

Other Strains on Propane Supply

Beginning in October 2013, the United States experienced several events that also strained its supply of propane. In turn, the following events created challenges in delivering propane to consumers.

Spring 2013 was extremely wet, yielding a large crop in the Midwest. During the fall, massive amounts of propane were needed to dry crops prior to storage. Also, in December 2013, the 1,900 mile Canadian Cochin pipeline was shut down for repairs. The pipeline provided 40% of the necessary propane to Minnesota and the repairs also caused rail re-routing to the Northeast. This began a chain reaction forcing suppliers to go further for their supply. Minnesota and Wisconsin retailers began to get their propane supply from Iowa, increasing Iowa's demand.

This article was written with information from the following sources: Propane Education and Research Council, National Propane Gas Association, National Public Radio, and Reuters.

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FUELING CLEAN TRANSPORTATION



U.S. Senator Mark Warner and Virginia Secretary of Commerce and Trade Maurice Jones will be among those invited to speak at the 2014 NGV Expo and Conference held in Richmond in April. Additional speakers include federal and state policy leaders, major car and truck manufacturers, current natural gas fleet owners, and city and local governments that have made the switch to natural gas.

The event, planned to begin at 3:00pm on April 14 and continue until April 16, 2014, is co-hosted by the Virginia Oil and Gas Association and Virginia Clean Cities. It will be the first large-scale Natural Gas Vehicles (NGV) expo and conference hosted in Virginia. In its second year, the Appalachian Basin NGV Expo and Conference is a regional initiative which was hosted last year with great success in West Virginia by the West Virginia Oil and Natural Gas Association.

With topics this year ranging from City Success Stories, Policy and Regulations, Infrastructure Needs, and Why Natural Gas is Good for Business, attendees will be provided with a wide variety of information. Local community, state, and private fleets looking for a cleaner, more affordable way to power their fleets will have the information available to help guide their decisions from among a host of exhibitors planning to take part in the Expo.

Interested parties may find more information about Virginia's NGV Expo and Conference and registration information by visiting www.ngv-expo.com or contact pr.voga@gmail.com.



The 2014 Alternative Clean Transportation "ACT" Expo will take place May 5-8 at the Long Beach Convention Center in Long Beach, California. ACT Expo is North America's largest clean fleet expo and will showcase advanced technologies for all weight classes and all alternative fuels. Attendees will enjoy fleet-focused educational sessions, experience real world alternative fuel vehicle (AFV) projects at off-site tours, explore the Expo Hall, drive an AFV during the ride-and-drive event, and network with thousands of clean transportation stakeholders.

Clean Cities Coalitions have been set up with the below discounted registration codes, valid until May 8, 2014:

| VCC Affiliation | Rate | Online Code |
|-----------------|-------|-------------|
| Fleet Members | \$350 | CCFLEET |
| Other Members | \$695 | CCMEMBER |

To register for the Expo and to view a complete conference agenda, please visit the ACT Expo website at www.actexpo.com.

Propane Vehicle Training

On February 10-12, VCC hosted a propane vehicle training course at Reynolds Community College. The training program was developed by the National Alternative Fuels Training Consortium and included methods and materials for the conversion and servicing of vehicles fueled by propane. Attendeeslearned about vehicle conversions, maintenance, safety, and emissions testing. The course was beneficial to both fleets with propane-powered vehicles and those fleets considering the switch to autogas.





This training was presented as part of the collaborative effort of the DC-MD-VA Clean Cities coalitions through the Advancing Alternative Fuel Markets Adoption and Growth Project.

Energy Independence Summit



The 2014 Energy Independence Summit is your chance to join the nation's premier clean transportation leaders and Clean Cities coordinators to discuss best practices and educate federal policymakers on driving America to a clean transportation future! This is an annual event coordinated Transportation Energy Partners, independent, national non-profit policy and education organization that works toward energy independence by creating and implementing a national fuel and technology neutral strategy to advance clean vehicle goals and policies. The summit focuses on education and seeks to facilitate a connection between stakeholders and their elected officials that furthers the cause of alternative fuels and technology. Virginia Clean Cities invites you to join us for this summit in Washington D.C. from March 30-April 2. For more information, and to register, visit www.transportationenergypartners.org. Please contact Alleyn Harned at aharned@ vacleancities.org if you would like to discuss the Virgnia Capitol Hill Day.

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FUELING CLEAN TRANSPORTATION

Growth in Natural Gas and Renewables, Decline in Coal for Electricity

According to the Environmental Protection Agency, electricity production accounts for about 33% of greenhouse gas emissions in the United States, which poses a unique challenge for electric vehicles (EVs), especially when they claim to be "zero emission" vehicles. Many people wonder: What is the point to EVs if the energy source used to generate the electricity in the car comes from a source that emits pollutants? The good news: power plant capacity is seeing an increase in renewable energy and natural gas and a decline in high carbon plants.

Natural gas, a cleaner burning fossil fuel, has been a lead source in replacing a large share of coal. The Federal Energy Regulatory Commission's Office of Energy Projects says that natural gas led 2013 with 51% of new domestic

| Total Installed Operating Generating Capacity | | |
|---|-------------------------|------------------|
| | Installed Capacity (GW) | % Total Capacity |
| Coal | 333.43 | 28.57 |
| Natural Gas | 487.21 | 42 |
| Nuclear | 107.32 | 9.25 |
| Oil | 47.03 | 4.05 |
| Water | 97.88 | 8.44 |
| Wind | 60.29 | 5.2 |
| Biomass | 15.74 | 1.36 |
| Geothermal Steam | 3.83 | 0.33 |
| Sølar | 7.42 | 0.64 |
| Waste Heat | 1.13 | 0.1 |
| Other | 0.8 | 0.07 |
| Total | 1160.08 | 100 |

electrical generating capacity. While coal still makes up a large portion of domestic power plant operations, that number is down to 29% from 50% two years ago. Renewables, such as solar, wind, biomass, geothermal, and hydropower made up 37% of 2013's new electrical generator capacities, three times that of new coal, oil, and nuclear power generators combined.

This article was written with information obtained from an article by Jon LeSage with Green Auto Market.

CNG VICE Model 2.0 Released

Clean Cities has updated the popular Vehicle and Infrastructure Cash-Flow Evaluation (VICE) Model to allow fleets greater flexibility in determining payback periods for natural gas vehicles and fueling infrastructure. The VICE Model helps fleet managers evaluate the financial soundness of investments in compressed natural gas (CNG) vehicles and/or fueling infrastructure. The updated version is applicable to a wider variety of vehicles and can accommodate an incremental fueling station build out.



Using simple spreadsheet inputs, the VICE Model helps fleets estimate the financial and emissions benefits they can expect to achieve by transitioning to CNG. Find the VICE Model on DOE's Alternative Fuels Data Center (http://www.afdc.energy.gov/tools) along with many other robust tools and resources related to deploying alternative fuels and advanced vehicles.

NASCAR Joins Workplace Charging Challenge

NASCAR has announced that they will be participating in the Department of Energy's Workplace Charging Challenge. The Challenge is collaborative effort to increase the number of U.S. employers offering workplace charging by tenfold.

The Challenge also

supports the broader efforts of DOE's Electric Vehicle (EV) Everywhere Grand Challenge to make plug-in electric vehicles (PEVs) as affordable and convenient as gasoline-powered vehicles within the next 10 years.

NASCAR unveiled five Eaton Level 2 electric vehicle charging stations at its Charlotte location, bringing the total number of EV charging stations to 20 across NASCAR facilities. The charging stations power EVs and PEVs of NASCAR employees and guests.

More than 55 employers have already committed to the Workplace Charging Challenge, including a number of NASCAR Official Partners such as 3M, Coca-Cola Company, Ford Motor Company, and General Motors. Find additional information on the Workplace Charging Challenge at www.electricvehicles.energy.gov.

Virginia Repeals Hybrid Tax



Virginia voted overwhelmingly to pass legislation which repeals a \$64 annual license tax imposed last year as part of the transportation funding package. Once passed, the legistration was rapidly signed by Governor Terry McAullife.

Since the tax went into effect last summer, state records show that 75,500 drivers have paid the \$64 fee. Repeal of the tax will reduce the revenue generated by the transportation funding package by roughly \$11 million, which was projected to raise \$1 billion a year for roads and mass transit.

Delegate Scott Surovell (44th District) and Senator Adam Ebbin (30th District) collected over 7,700 signatures for a petition to repeal the tax. The repeal bill passed both Virginia Houses and Governor Terry McAuliffe signed it into law on February 26, 2014. The repeal will go into effect on July 1, 2014.

Electric cars and other alternative fuel vehicles will still be taxed under the transportation bill.

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FUELING CLEAN TRANSPORTATION

New and Renewing Stakeholders



Carter Cat is the new Virginia distributor of Blue Bird school buses, including natural gas and propane-powered buses. They strongly believe in the preservation of the environment as it leads to a safer, healthier world for the children they strive to protect every day.



Future Energy is a Virginia company TutureEnergy advancing fuel infrastructure for natural gas and other fuels in the Tidewater Region.



OpConnect was conceived and developed by a team of engineers and technologists that believes in applying innovative technology to optimize their relationship with the natural environment while successfully addressing the business challenges faced by a diverse vehicle electric population of drivers.



The Propane Education & Research Council promotes the safe, efficient use of odorized propane gas as a preferred energy resource through research and development, training, and safety programs.



Reynolds Community College helps students Revnolds realize their career and life aspirations. They provide an outstanding college experience and support systems engineered for student success.



Tidewater Community College collegiate education and training to adults of all ages backgrounds, and them achieve their individual goals and contribute as citizens and workers to the vitality of an increasingly global community.



Trillium is a leading provider of CNG fueling services as well as a single-source provider of CNG fueling facility design, construction, operation and maintenance. They specialize in fueling fleets that require high-performance solutions.



Virginia Natural Gas serves more than Virginia Natural Gas 275,000 residential, commercial, and industrial customers in Virginia and operates a series of CNG stations in the Commonwealth. Their parent company, AGL Resources, is one of the nation's preeminent distributors of natural gas.

Virginia Clean Cities counts on a diverse membership base to facilitate our mission. If you are considering becoming a stakeholder, please visit our membership page at

www.vacleancities.org/get-involved/join-us.

Virginia Clean Cities Staff and Responsibilities



Alleyn Harned, Executive Director 540-568-8896 aharned@vacleancities.org VCC's collaborative effort stakeholders and the Commonwealth in programs to improve air quality, and increase American energy security and economic opportunity through the increased use of alternative fuels and vehicles.



Sabrene Graves, Director of Grants Administration 540-568-5029 sgraves@vacleancities.org Focuses on program leadership, systematic management of the portfolio of projects, and driving new business with existing as well as new clients.



Michael Phillips, Program Coordinator 804-482-1790 mphillips@vacleancities.org Manages alternative fuel projects and events and leads VCC's public relations and media campaign.



Matthew Wade, Program Coordinator 540-568-4091 mwade@vacleancities.org Manages alternative fuel projects and has experience working with local governments.



Kaitlin Pomerleau, Administrative & Financial Coordinator 540-568-4854 kpomerleau@vacleancities.org Oversees VCC's adminstrative needs, accounting policies and procedures, and sponsored projects and contracts. supports



Laura Bryant, Program Assistant 540-568-5707 lbryant@vacleancities.org Supports VCC's projects, events, and website, and creates marketing fliers and stakeholder newsletters.



Brandon Walraven, Intern 540-568-5707 bwalraven@vacleancities.org Maintains the alternative fuel vehicle and station inventory and other alternative fuel-related research

Upcoming Events

3/11-13 - DEQ Environmental Excellence Conference, Richmond 3/12 - Clean Cities Quarterly EV Webinar 3/17-21 - CNG Training and Certification, Chesapeake 3/29 - Green Car Show, Roanoke 3/30-4/2 – Energy Independence Summit, Washington, DC

4/14-16 - NGVehicle Expo and Conference, Richmond 4/15 - Stakeholder Meeting & CNG Stakeholder Meeting, Richmond

4/28-5/2 - CNG Training and Certification, Springfield 5/5-9 - ACT Expo, Long Beach, CA 5/6 - LPG School Buses Call

Please visit www.vacleancities.org for the latest information about all Virginia Clean Cities events.

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