

**Capital District Clean Communities
June 19, 2014 Meeting
Meeting Notes**

Attendance

Jen Ceponis, CDTC/CDCC Coordinator	Mike Tracy, Verizon Schenectady
Jess Ranni, CDCC Intern	Wayne B. Akin, Hoosic Valley SCD
Jason Jones, RPI	Rob Jess, American Natural Gas
Adam Ruder, NYSERDA	Mike Koch, UAlbany
Todd Fabozzi (CDRPC)	Kate Mance, AGFTC
Stephen Iachetta (Albany County Airport Authority)	Glenn Haven, Atlantic Detroit
Joe Darling, Darling Transportation	Stacey Hughes, National Grid

1. Jen Ceponis welcomed everyone and then attendees introduced themselves.
2. **Natural Gas Vehicle Energy Solutions Presentation by Joe Darling**
 - a. Joe Darling of Darling Transportation Energy Solutions LLC (DTES) spoke about the variety of CNG projects he has worked on. Joe has 17 years of experience with alternative fuels and fleet operations. He has 35 years of experience assisting fleet owners and managers transition their fleets, working with fleet products and services, CNG and LNG fuel station design, operation and maintenance, as well as grant writing, reporting, training and outreach. Joe built the Natural Gas Infrastructure and program at NYSDOT when he was there. At one point NYSDOT had over 3,000 CNG vehicles but that number has been decreasing. The program was nationally recognized because of its low costs per station (each station cost about \$110k).
 - b. DTES builds various stations from small to large, dealing with both CNG and LNG. Stations are built so that they can be expanded in the future. See the attached file of Joe's presentation.
 - c. The presentation generated a lot of discussion regarding the environmental benefits of CNG, impacts of hydrofracking, and vehicle efficiency using CNG. The benefits of CNG can be found on U.S. Department of Energy's Alternative Fuel Data Center website [Natural Gas Basics](http://www.afdc.energy.gov/fuels/natural_gas_basics.html) (http://www.afdc.energy.gov/fuels/natural_gas_basics.html). Argonne National Lab has produced a white paper titled [Hydraulic Fracturing and Shale Gas Production: Technology, Impacts, and Regulations](http://www.afdc.energy.gov/uploads/publication/anl_hydraulic_fracturing.pdf) which can be found here: http://www.afdc.energy.gov/uploads/publication/anl_hydraulic_fracturing.pdf.

3. NYSERDA

- a. Current & Upcoming Grant Opportunities – The Cleaner Greener Communities funding program and PON 2881: Institutionalizing Integrated Solutions Supporting Accessible Multimodal Transportation Networks both closed out recently. PON 2818: NYS CNG Infrastructure Program was announced last month. There is funding available for \$300k or 50% cost for small stations or \$500k or 25% for larger stations. All stations must be publicly accessible. An Advanced Transportation Technology R&D PON is expected to be released in the Fall.

Some current funding programs of note:

- [EV Truck Voucher Program is still open \(https://truck-vip.ny.gov/\)](https://truck-vip.ny.gov/)
- [NYSERDA PON 1896 NYS Clean Air School Bus Program \(http://www.nyserda.ny.gov/Funding-Opportunities/Current-Funding-Opportunities/PON-1896-New-York-State-Clean-Air-School-Bus-Program.aspx\)](http://www.nyserda.ny.gov/Funding-Opportunities/Current-Funding-Opportunities/PON-1896-New-York-State-Clean-Air-School-Bus-Program.aspx)

- b. ZEV Action Plan – NY and 7 other states have agreed on a plan to increase the number of clean vehicles on the road. Under the Multi-State Zero-Emission Vehicles (ZEV) Action Plan, the states set a goal to have 3.3 million ZEVs on U.S. roads by 2025. As part of the ZEV Action Plan there will be infrastructure and vehicle incentives. NYSERDA and other state agencies will work with utilities over the next couple of years to make ZEVs more appealing to consumers.
- c. Other – EVSE installed under the NYSERDA funding program are all collecting usage data that will be available quarterly. At this time Plugshare.com is more current than other EV station locator sites or apps.

2. CDCC:

- a. Summer 2014 Intern – CDCC has welcomed it's summer intern, Jessica Ranni, a UAlbany and RPI students. Jessica will be working on ongoing EV Outreach & Fall School Bus event planning.
- b. New Visions Update – the Capital District Transportation Committee (CDTC) is updating its long range transportation plan, *New Visions*. Several subcommittees have been formed to assist in the update process, including the Environment & Technology Subcommittee. There is a lot of support amongst this subcommittee to promote and encourage the adoption of alternative fuels and advanced vehicle technologies. The New Visions update materials are anticipated to be ready for public input by late summer/early fall.
- c. RG102: Alternative Fuels Set-Aside – Last winter CDTC solicited for various kinds of transportation projects, including alternative fuel which was funded through the \$744K Alternative Fuels Set-Aside (RG102) in the Transportation Improvement Program (TIP). Two project proposals were received, one from the City of Schenectady to purchase electric vehicles and install charging stations and one from the Albany International Airport to upgrade their CNG fueling station. The CDTC Policy Board approved funding for both projects. There is \$360,100 remaining which

will be programmed in the future but right now CDTC is not accepting new project proposals.

- d. BAE Systems and Port of Albany Project – A proposal was submitted under the recently closed out NYSERDA PON 2881 to replace 3 diesel engines on the Spirit of Albany, security patrol vessel, with an innovative hybrid electric engine.
- e. Transportation Energy Partners 2014 Energy Independence Summit Summary – CDCC attended the EIS for second year in a row. It was well attended with great programs and content. Speakers included Mayor Greg Ballard of Indianapolis who has pledged to convert the entire City’s fleet to alternative fuels by 2025 and EPA Administrator Gina McCarthy. Anyone interested in becoming a member of TEP or attending the 2015 EIS should visit their website at:
<http://www.transportationenergypartners.org/>.

5. **NEWS AROUND THE TABLE:**

- a. **AGFTC** is working on an Electric Vehicle Study.
- b. **CDRPC** has been managing the NYSERDA Climate Smart Communities pilot program. CDRPC and its consultant team serve as strategic planning agents to empower local governments, connecting them with financial and technical programs, and with each other, offering training assistance and consistent tracking and reporting of successes and barriers to addressing the Climate Smart Communities elements. There are currently 17 communities in the Capital Region that have signed on. For more information visit the CDRPC website:
<http://www.cdrpc.org/CSCommunities/CSCommunities.html>
- c. **RPI** is installing a propane station on campus for its all-propane bus fleet in the fall.
- d. **Verizon** purchased Azure Transit Connect EVs and charging stations but all of the vehicles have failed and are unable to be used at this time. Azure has gone bankrupt and no one will work on the vehicles. CDCC will look into this issue.
- e. **Albany Airport** is ordering 2 CNG shuttle buses to add to their fleet.
- f. **Atlantic Detroit** is located in Colonie and provides service on dual fuel CNG vehicle systems.
- g. **National Grid** has installed 33 electric vehicle charging stations.

Next Meeting

This group will meet again on **Thursday September 18, 2014** at TBD from 10:00 am to noon.



DARLING TRANSPORTATION ENERGY SOLUTIONS



Natural Gas Vehicle Energy Solutions

Implementing a strategic plan to reduce operating costs and relieve our dependence on foreign energy sources while reducing harmful emissions!



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Why Natural Gas? It's the 3 E's

ENERGY INDEPENDENCE, ECONOMICS & THE ENVIRONMENT!

- ❑ Natural Gas is domestic and renewable relieving our dependence on foreign crude oil
- ❑ Natural Gas is cost effective, generally about \$1.50 per gallon cheaper than gasoline or diesel fuel
- ❑ Natural Gas is Safe!!! Natural gas is lighter than air so it dissipates and has a narrow ignition range
- ❑ Natural gas is efficient, fuel mileage should increase at least 20%
- ❑ Natural Gas is among the best solutions for clean air and clean water



DARLING TRANSPORTATION ENERGY SOLUTIONS

Dispelling the primary Myths

- Natural Gas infrastructure does not have to be prohibitively expensive.
- Natural Gas can be available anywhere!
- Natural gas vehicles are more efficient and easy to maintain.
- Natural gas infrastructure is reliable.



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Various Station Models

- Small scale stations for small fleets.
- Medium scale stations for medium fleets.
- Large scale stations for larger fleets.
- All stations are expandable.
- All stations have redundancy and emergency preparedness.



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Typical 'Low Volume' Compressor Station

Storage

Dispenser

Compressor





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Medium Volume Fast fill CNG station





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LCNG for Combination or High Volume





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Why LNG ?

- ✓ LNG allows liquefaction from pipeline or other stranded sources for transport to locations without pipeline access.
- ✓ LNG can substitute or supplement compressors reducing downtime.
- ✓ LNG is mandatory for all 15 liter and larger engines for over the road and off road use. Except Dual Fuel.



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Time Fill can reduce labor costs





DARLING TRANSPORTATION ENERGY SOLUTIONS

Process?

❑ Fleet Evaluation –

We examine your fleet needs, age of fleet, miles driven & fuel consumed...

❑ Vehicles –

- We help you identify priority vehicles for conversion or replacement with natural gas.

❑ Infrastructure –

- We look for opportunities to build fuel infrastructure to support your normal operations.

❑ Support -

- We provide education and training to employees and public officials.



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Services

- Design, build, maintain, and operate CNG, LNG, or LCNG fuel stations for private or public use.
- Assist to identify and apply for grants, incentives, tax credits, etc.
- Provide vehicle purchasing and or leasing assistance to acquire vehicles.



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Other projects

- Onboard generation of hydrogen for injection into dual fuel operating engine.
- Waste water generation of methane for production of natural gas.
- Solar Energy Systems for residential or commercial use.
- Patents pending for LNG/LCNG facilities.



DARLING TRANSPORTATION ENERGY SOLUTIONS

THANK YOU!!!!

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