

**TOWN OF BOONE
SUSTAINABILITY COMMITTEE
MEETING MINUTES
THURSDAY, AUGUST 8, 2019
5:30 P.M.**

Members Present: Chairperson Quint David, Vice-Chairperson Harvard Ayers, Nancy LaPlaca, Lee Ball and John Prickett.

Town Council Liaisons Present: Sam Furguele and Marshall Ashcraft

Staff Members Present: Marty Little-Senior Planner and Marlene Crosby-Committee Secretary

Others Present:

Call to Order

Chairperson Quint David called to order the Boone Sustainability Committee, held in the Planning and Inspections Department – Upstairs Conference Room located at 680 W. King Street at 5:32 p.m.

Adoption of Agenda

Vice-Chairperson Ayers made a motion, seconded by Member Prickett to adopt the agenda as written.

Vote: Aye – All
Nay – None
The motion passed.

Approval of Minutes

Member Prickett made a motion, seconded by Vice-Chairperson Ayers to approve the July 11, 2019 meeting minutes as written.

Vote:
Aye – (Ayers, David, LaPlaca, Prickett)
Nay – None
Abstention – 1 (Ball)
The motion passed.

Discussion ensued on plastic bags. Chairperson David talked about a process to implement ideas to reduce the use of plastic bags. Member Furguele said that the Sustainability Committee has no authority on plastic bags.

Town Department Operations/Police Department

Police Chief Dana Crawford and Police Captain Andy Lebeau gave a presentation on the Boone Police Department regarding sustainability (permanently attached).

Chief Crawford presented information describing the Police Department's location, hours of operation, number of Staff, number of vehicles (which included the maintenance costs for the past 12 months as well as the vehicle fuel usage), water usage, electricity usage, natural gas usage and initiatives that they have undertaken to reduce their carbon footprint.

Chief Crawford pointed out that the Police Department will be receiving a hybrid patrol car when it has completed its necessary upgrades. He said the Department has received two electric-assisted bicycles, which have generated positive feedback so far, with the only foreseeable downside being the inclement winter weather.

Council Member Furguele talked about washing the police vehicles, how the new Municipal Building will include its own car washing station, and the importance of washing the undercarriage of the police vehicles in order to sustain vehicle life by removing salt.

Council Member Ashcraft wanted to know how many front-line vehicles were in the Police Department. Chief Crawford said they have 35 front-line vehicles, with five auxiliary/reserve cars, and that they try to replace four vehicles per year. He expects the transition to a full hybrid/electric fleet to take eight to nine years. He noted that the Department has been using some vehicles since 2005.

Council Member Furguele asked how many police personnel live in Town. Chief Crawford said currently there are two living in Town. Council Member Furguele further talked about the current lack of incentives for police officers to live in Town, including no incentives for police officers that are called back for patrol duty or training on their days off. Chief Crawford noted that there are currently eight police detectives that are subject to call-back.

Captain Lebeau talked about the Town policy for taking police vehicles home, which includes keeping up the maintenance of the vehicles. He talked about the recruitment and retention for police officers.

Chief Crawford read from his quarterly and annual report stating that the Boone Police Department receives around 21, 000 calls per year. Member Ball asked if there was a way to reduce mileage without compromising the services. Chief Crawford said it is difficult because officers are constantly responding to calls and do not have a lot of downtime. Captain Lebeau said that officers do "Intelligent-Led Patrolling", where they patrol "hot spots" in an effort to be pro-active, but most officer time is reactionary instead of preventative.

Council Member Furguele asked Chief Crawford if he supports police personnel living in the Town limits. Chief Crawford answered yes and that he would like for all officers to live in the Town limits.

Discussion ensued on the use of bicycles for police work. Chief Crawford said officers can use the bicycles for a lot of the calls, but in some cases, a hostage situation for example, they need to use a police vehicle. Chief Crawford pointed out that when the police officers use the bicycles, they can better engage with the community.

Discussion ensued on police trailers. Chief Crawford said the Police Department has two traffic trailers, but they do not have a specialized trailer to work a crime scene. He said they do have a generator to use to power a trailer to serve as a command post. Committee Member Ball talked about how police trailers can be powered with photovoltaics (PV), and conversions to solar can be grant-funded.

Discussion ensued on electric vehicles. Chief Crawford said that the batteries on the electric vehicles drain from the specialized lights and computers running for extended periods of time in the police vehicle.

Discussion ensued on propane-gas conversions in vehicles. Captain Lebeau talked about a way to convert the gasoline-powered vehicles over to propane-gas through a company called Alliance Auto Gas (permanently attached). He said the propane-gas conversions could be done as an intermediate step as proven electric vehicles start to become available. He noted that the cost of this type of conversion is about \$6,000.00 in addition to the cost of the new vehicle. He also noted that the current cost of propane is about \$1.20 per gallon and varies just like gas does, and it is a higher octane. He said the amount of carbon reduction is about 85 percent greater than a gasoline powered vehicle. He said the propane tanks are located in steel boxes in the trunk of the vehicle for safety. He said this type of conversion is not recommended for Dodge Chargers. He said that the Town of Waynesville, North Carolina has converted some of their police vehicles to propane through the Alliance Auto Gas company.

Committee Member LaPlaca showed concern for an environmental impact from using the propane gas. She asked how long will it would take to recoup the cost of the propane-gas conversions. Captain Lebeau said the cost of the conversion would be recouped within 12 to 18 months, with the car's lifespan being about eight to ten years.

Discussion ensued on recycling paper. Chief Crawford explained that his department is doing some digital storage of information, but state law requires that they retain large amounts of paper, which is more than they want to keep.

Discussion ensued on the drug-take back program. Chief Crawford said his department receives an incredible amount of drugs in this program. Council Member Furgiuele asked Chief Crawford if he could contact pharmacies to learn how to educate the public on the disposal of unused drugs.

Council Member Furgiuele asked Chief Crawford if he anticipated any resistance within the Police Department to departmental changes towards climate neutrality. Chief Crawford answered that he did not, as long as the equipment and changes were proven to be as effective as before.

Other Matters by Committee Members or Staff

Council Member Furgiuele talked about a proposed Town Council agenda item asking Council to direct Mr. John Ward, Town Manager, to create an internal system to monitor the emergence of sustainable technology that could be used by Town departments. He also mentioned that he planned to place on the Town Council agenda an action item regarding the possible banning of Styrofoam.

Adjournment

Member Ball made a motion, seconded by Vice-Chairperson Ayers to adjourn the meeting at 6:55 p.m.

Vote: Aye – All

Nay – None

The motion passed.

Quint David, Sustainability Committee Chairperson

Marlene Crosby, Committee Secretary

Town of Boone Police Department

Sustainability Report



Location: 1500 Blowing Rock Road (Blowing Rock Government Building)
Hours of Operation: 24/7
Staff: 37 Officers/11 FT and 4 PT Civilians
Vehicles:

Maintenance Costs for past 12 months (April 2018-March 2019): \$42,304.66

Vehicle Fuel Usage in past 12 months (April 23, 2018 to April 22, 2019 combined averages):

Estimated Miles:	422,370
Gallons Purchased:	33739
Total Gross Cost:	\$86,314.30
Total Paid after tax exemption and Speedway discount:	\$66,018.38

Chrysler/Dodge/Ram products have Engine Displacement Systems for fuel economy

Building Water for past 12 months (June-May): 92,000 gallons

Building Electricity for past 12 months:

Kilowatt Hours:	165,720
Cost:	\$15,057.50

Building Natural Gas for past 12 months:

Therm Usage:	1,254
Cost:	\$1,420.69

Initiatives we've undertaken to reduce carbon footprint:

- Switched from Propane to Natural Gas
- Replaced refrigerator with an energy efficient model
- Replaced water heater with a natural gas, tankless version in 2016
- Use bike patrol when possible and have personnel available
- Placed a drug take back station in the lobby to keep pharmaceuticals out of streams
- Several recycle bins through the building for easy access
- Installed motion detector lighting for high traffic areas
- Refrigerator has water dispensing for use instead of bottled water
- Air Purifier placed in the evidence room
- Purchase of hybrid patrol car (testing phase)
- Purchase of two electric assist bicycles
- Changing building lights to LED when replacement is necessary

MUNICIPAL SOLUTIONS



Alliance AutoGas (AAG) is an international network providing a comprehensive propane autogas solution for multiple vehicle platforms for all major manufacturers. AAG is able to convert buses, vans, sedans, utility trucks, medium-duty buses to bi-fuel propane autogas or to a mono fuel configuration. Conversions can be fully compatible with handicap accessible vehicles.



THE ALLIANCE AUTOGAS ADVANTAGE

- Meet sustainability goals & reduce costs
- Buy American-domestic fuel & conversion systems
- Direct & indirect labor savings – No fuel stops
- Predictable pricing allows for accurate budgeting
- Reduce fuel costs by 30% - beat your budget every year
- Single-point sourcing for fuel allows for greater control, fuel quality, & data integrity
- Excellent “mission critical” fuel supply
- Increases uptime
- Low or no upfront costs allow for quick ROI
- Alliance AutoGas grant & rebate programs available



INFRASTRUCTURE, SCALABILITY & DATA MANAGEMENT



Adopting an alternative fuel shouldn't be a hassle. When Alliance AutoGas converts a vehicle fleet to operate on propane autogas, we provide autogas fueling at no upfront cost to their organization. With scalable onsite and public refueling site options available, we assess each individual fleet's needs. And since autogas infrastructure grows with your fleet, we can make sure fleets have the most success based on fleet size, budget, and facility space.

In addition to refueling, our autogas dispensing stations provide data management opportunities. The Alliance Triton T3MR Dispensing Station allows users to track vehicle data they require such as Driver ID, Vehicle ID, Vehicle Mileage, Gallons pumped and more.

FEATURES OF THE TRITON T3MR INCLUDE:

- Simple user interface
- Cellular-based communication
- User customizable reporting
- Multi-level user access for Alliance members and customers
- Real-time management of cards and fleet resources
- Complete end to end solution
- Daily data file for back office import
- Accommodates multiple fleets/user at a single location



KEY FACTS ABOUT PROPANE AUTOGAS



- There are over **24 million vehicles running on Propane Autogas worldwide**, making Propane Autogas the third most-widely-used automotive fuel in the world. The technology has been tested in every condition and has proven itself in the real world.
- **100% of Propane in the U.S. comes from North America**, increasing America's energy security.
- **Propane Autogas costs 30% less than gasoline**. Even during spikes in the price of crude oil, the relationship between the price of gasoline and Propane Autogas has held steady.
- The American Propane Autogas industry has been building an extensive infrastructure for Propane AutoGas supply and distribution for years; **there are over 70,000 miles of Propane Autogas pipeline in the U.S.**, and the current distribution capacity far exceeds current demand.
- **Propane Autogas is a safer fuel than gasoline or diesel in case of accident**; it's less flammable and nontoxic. Thousands of school buses and taxis in the U.S. have already been converted to Propane Autogas.
- **Propane Autogas is a cleaner technology**, burning with fewer polluting by-products -- enabling you to be a better corporate citizen and protect public health.
- **Propane Autogas provides the longest driving range of any alternative fuel**. Your fleet will not experience any lack of productivity after conversion.
- You can use the same quality trucks you already own, but get higher performance from them by converting them to Propane Autogas, a cleaner fuel that **extends engine life and reduces necessary maintenance**.
- You can add brand new OEM Propane Autogas-powered vehicles, or aftermarket conversion systems.
- You can **convert your existing fleet into flexible bi-fuel** (Gasoline/Propane Autogas) vehicles, and take advantage of both fuel sources.



SUSTAINABILITY + ENVIRONMENT



REDUCE YOUR COMPANY'S CARBON FOOTPRINT BY CONVERTING TO AUTOGAS

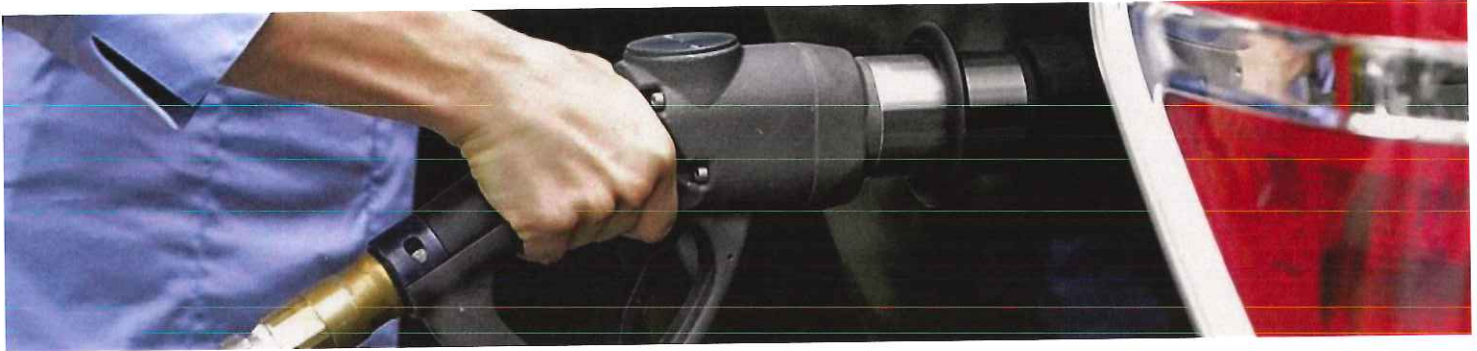
Not only does propane autogas cut costs, but it also cuts down on harmful emissions. Propane Autogas is the cleanest burning fossil fuel and is an approved Clean Fuel listed in the 1990 Clean Air Act and Energy Policy Act of 1992.

According to test conducted by the US Environmental Protection Agency, propane autogas vehicles can produce 30-60 percent less carbon monoxide emissions, 80 percent reductions in exhaust coarse particulate matter, up to 95 percent reductions in evaporative volatile organic compounds, and approximately 50 percent fewer toxins and other smog-producing emissions when compared to gasoline engines.

AUTOGAS:

- Lowers harmful greenhouse gas emissions significantly when compared to gasoline and diesel vehicles
- Significantly reduces pollutants such as particulate matter
- Reduces Carbon Monoxide by 60% when compared to gasoline, by 28% when compared to diesel
- Reduces Carbon Dioxide by 12% when compared to gasoline, by 18% when compared to diesel
- Reduces Nitrogen Oxide by 20% when compared to gasoline, by 60% when compared to diesel
- Reduces non-regulated emissions, including aromatic hydrocarbons, benzene, and SO₂
- Is nontoxic and soluble in water
- Reduces your carbon footprint by up to 96% compared to other fuels when considering total emissions, according to the World LP Gas Association





PROPANE AUTOGAS IS A SAFE, PROVEN, ALTERNATIVE FUEL

- Propane AutoGas is less flammable than gasoline, diesel, or CNG.
- Propane AutoGas is nontoxic.
- Propane AutoGas burns cleaner than other fossil fuel by-products, such as CNG.
- Propane AutoGas tanks are 20-times stronger than conventional fuel tanks.
- Propane AutoGas dissipates in the air in case of accident, unlike gasoline or diesel.
- Fueling systems and stations installed by Alliance AutoGas are sealed systems, eliminating the likelihood of spills, and employ an ultra-low emissions connector.
- Propane AutoGas has already proven its safety and reliability in powering over 25 million vehicles worldwide.
- Propane AutoGas is the third most-widely-used vehicle fuel in the world.

Alliance AutoGas also offers the safest refueling option in the industry.

The Stäubli Nozzle was developed to replicate the refueling process of a gasoline vehicle, something every driver already knows. The nozzle is just one part of our state-of-the-art vehicle technology, which makes safe refueling quick and easy, keeping your fleet on the road.



COMPLETE SOLUTION & QUALITY



WHO WE ARE / CONVERSION PROCESS

At Alliance AutoGas, we provide the only complete solution to convert, fuel, train, and manage your autogas fleet. In 2015 alone, Alliance members collectively displaced 45 million gallons of gasoline, producing \$54 million in fuel cost savings for the 460 fleets they service.

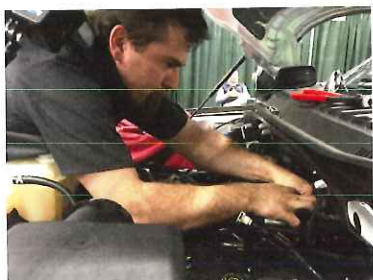
- ① Vehicle Technology ② Conversions ③ Refueling Infrastructure
④ Fuel Supply ⑤ Maintenance



Our state-of-the-art technology is robust, reliable, and our new conversions are designed for “plug-and-play” installation, meaning less downtime for your fleet, with most vehicles being converted in under 6 hours. Developed for a variety of makes and models, our conversions take less time to install and are EPA certified for your vehicle — meaning they will not void your existing vehicle warranty, in addition to requiring less maintenance. We offer additional peace-of-mind through our 5 year/100,000 mile warranty on new conversion models to show just how confident we are.



CONVERSION PROCESS



Alliance AutoGas proudly offers an EPA certified bifuel solution, reducing range anxiety for our fleets by allowing them to refuel with either propane autogas or gasoline. Offered at zero upfront cost, our systems are installed by Certified Conversion Centers with trained autogas technicians to deliver quality results.

With a wide range of vehicle platforms, we handle everything from the conversion technology and infrastructure to refueling, training and maintenance. In addition, we offer our own “plug and play” System, which significantly reduces cost and conversion time.

BENEFITS OF THE PLUG AND PLAY SYSTEM:

- Dramatic CO₂ emissions reduction- helps fleet managers meet and surpass sustainability initiatives for medium and heavy-duty truck fleets
- System is certified with the U.S. Environmental Protection Agency (EPA) and National Fire Protection Association's (NFPA) 58 standards
- Labor time cut in half and conversion costs are significantly reduced
- The conversion system is supported by a 5-year, 100,000 mile warranty
- Zero intrusion on the vehicle's original fuel tank

Our bifuel conversion systems do not void the current warranty on your vehicle, and we also offer our own 5-year, 100,000 mile warranty on our Plug and Play systems just to prove how confident we are.

