# *The Case For Propane Power*

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When Dr. Walter Snelling, a Harvard graduate and Bureau of Mines chemist, made the discovery that would define his career, he wasn't looking for a new source of energy, and he certainly wasn't looking for an alternative fuel. Dr. Snelling simply wanted to know why vapors were forming in the gasoline tank of a Model T Ford. He took a sample to his lab, ran tests and when he found the mixture of gases which he called liquefied petroleum gas, he not only had his answer, he had also discovered a new source of energy that would one day become the world's most widely used alternative fuel.

Dr. Snelling, the scientist, might have been satisfied but Dr. Snelling, the entrepreneur, was not. He knew liquefied petroleum gas was rich in energy and had unique qualities which might be marketable. Since, L P gas could be changed from a gas to a liquid with relative ease, and since it is far more compact as a liquid (270 times), Dr. Snelling figured it would be easy to store and to transport. Soon, he was storing it in bottles, and it was being used for lighting, for cutting metal and for heating. Dr. Snelling received the first L P gas patent, and he formed the first L P gas company. Dr. Walter Snelling discovered L P gas, and he was its main advocate. But, even he didn't fully appreciate its potential.

Today, propane is a $10 billion industry, and more than 60 million Americans use propane. Propane heats water and fuels hot air balloons. It's used to rescue climbers on Mt. Everest, and people throughout the world pause when the propane-fueled Olympic Torch passes by. Propane fueled the first vehicle in 1913; today, propane fuels more vehicles worldwide (18 to 20 million) and in the U S (350,000) than any other alternative fuel. Propane powers automobiles, heavy duty trucks, private vehicles and commercial fleets. More than 500,000 forklifts use propane as do municipal buses, police cruisers and emergency vehicles. Propane is an approved clean fuel per the Clean Air Act of 1990 and the National Energy Policy Act of 1992, and it costs 30-40 % less than gasoline.

Propane motorists depend upon the same infrastructure as the millions of other propane consumers in this country. That infrastructure moves more than 20 billion gallons of propane each year from the oil refineries and gas processing plants where it is produced, to the millions of customers located throughout the country. It includes approximately 70,000 miles of trunk line in the pipeline system, 22,000 railroad tank cars, 90 barges and tankers, 6,000 transport trucks, 35,500 bobtail trucks, 13,500 bulk/storage distribution points, 4,000 vehicle refueling stations (industry estimates are closer to 10,000), and more than 162,000 cylinder refilling locations. However, recent changes in the alternative fuels market suggest that changes may also be needed in the infrastructure and in the regulations that govern the propane industry.

Current rules require that commercial refueling be performed by trained and certified personnel. Consequently, after hours refueling isn't available. Propane vehicles routinely travel 700 to 1,000 miles or more before refueling. However, without the ability to refuel when and where it is convenient, the transportation component of this industry will likely suffer. New dispensing technology including card reader systems can eliminate many safety concerns. Appropriate training can be determined and access can be granted or denied based upon identification cards and access codes. Rules should be reviewed and possibly revised to accommodate this new technology.

The recent growth of alternative fuels was largely spurred by state and federal incentives. The State of Oklahoma offers a 75 percent tax credit for new alternative fuel infrastructure, a 50 percent tax credit for alternative fuel conversions, and a 50 percent tax credit (up to $2,500) for residential refueling stations. However, the propane industry is incentivized to a lesser degree than some other industries. **Infrastructure**: This program is less of an incentive to the propane industry because propane's infrastructure was built years ago with private sector funding. Additionally, new CNG infrastructure costs approximately 10 times more than propane's. Consequently, the incentive or tax credit benefit to the CNG industry is approximately 10 times more as well. **Conversions**: The cost to convert a vehicle to CNG is approximately twice that of propane. Consequently, a CNG motorist receives twice the tax credit benefit as a propane motorist. **Residential**: This tax credit applies only to residential CNG refueling stations. **There is no incentive to the propane industry as propane is not included.** Oklahoma's propane industry should be more involved in future discussions regarding the state's tax incentive programs and should be more proactive as well. Those not directly involved in this

industry cannot be expected to understand and fully appreciate the nuances that are particular to propane.

In O.S. 74, Sec. 78, f., the Oklahoma Legislature declares it is in the public interest to increase access to public CNG refueling stations in Oklahoma. The Legislature's goal is to have a CNG station at least every 100 miles along the interstate highway system by 2015 and one or more every 50 miles by 2025. The legislature has also authorized the state to enter into agreements with private entities in order to build infrastructure and to meet this goal. **Propane infrastructure is not included.**

Oklahoma has joined with 21 other states to encourage manufacturers to build CNG vehicles and to leverage buying power in order to purchase these vehicles for use in state fleets. **Propane vehicles are not included.**

The federal government incentivizes alternative fuels through a 50¢ per gallon tax rebate; and imposes a 18.3¢ per gallon tax. Collecting and remitting this tax discourages many propane retailers from selling propane motor fuel. The federal incentive to use clean alternative fuels could be increased at no additional cost if the tax were eliminated and the rebate reduced to 31.7¢.
Oklahoma ranks fourth among all states in terms of natural gas production. Energy sector jobs helpdrive Oklahoma's economy, and taxes paid by this industry are critical to the state's budget. It is natural that the state would support this industry and that it would partner with it to identify and develop markets that will create jobs and revenue for the state. It is win-win arrangement. However, it need not be exclusionary.

Oklahoma leaders support the compressed natural gas industry because CNG is efficient, affordable, clean-burning, Oklahoma produced, and it decreases our dependence on foreign oil. Propane is also efficient, affordable, clean-burning, Oklahoma produced, and it too decreases our dependence on foreign oil. Oklahoma leaders support CNG vehicles for the state's fleet because each one will save the state thousands of dollars. Each propane vehicle will also save the state thousands of dollars.

Oklahoma leaders support new CNG infrastructure because it is a critical component of the compressed natural gas industry. Critical propane infrastructure is already in place in virtually every area of the state, and new propane infrastructure could be built at a fraction of the cost of CNG infrastructure saving the state hundreds of thousands of dollars per location.

Propane and compressed natural gas are probably more similar than they are different. Propane is a natural gas liquid, and according to the U S Energy Information Administration, NGLs are "hydrocarbons-in the same family of molecules as natural gas and crude oil." In fact, over 50 percent of propane is produced from natural gas. The remainder is produced from crude oil.

By incentivizing the propane industry, the state also incentivizes natural gas. A healthy and vibrant propane industry also benefits natural gas and has effects statewide. Oklahoma's public interest would be well served if propane and CNG were equally embraced, if incentive programs provided propane and CNG equal benefits, and if both propane and CNG vehicles were added to the state's fleet. There is room for both fuels in our expanding alternative fuels market, and both fuels can provide significant environmental, economic and national security benefits.