

## Common Grounds Landscape Management (TN)



### Overview

In 2008, Common Grounds Landscape Management agreed to be part of a case study with PERC and the University of Tennessee in which they were provided two lawn mowers to compare gasoline and propane lawn mower operations. By the end of the study, president John Watson was convinced to convert 20 lawn mowers to run on propane.

### Program Participation

Common Grounds was supported in this project by funding from PERC. Following the PERC study, the additional mower conversions were financed by Heritage Propane. Heritage paid for the conversions up front, and then added 20 cents per gallon to the price of propane until the conversions were paid off.

### Project Motivation and Implementation

The initial goal for Common Grounds was to participate in the PERC study and compare usage of gasoline versus propane. Common Grounds was to evaluate the life of the engines, emissions, and economic value of the fuels; they received two free mowers, which ran for a year on propane.

After the case study, Common Grounds was convinced to convert the rest of their mowers. They were motivated by the energy security, cost savings, lower emissions, and economic development. Watson states, "It was the right thing to do because it's environmentally clean, sustainable, and economical."

Watson worked with separate suppliers for the propane and for the conversion kits. Common Grounds developed a filling station on site and had to run an electrical line to the tank. Heritage Propane along with Metro Lawn installed the pump and filling station. They also managed the station and assisted in training the Common Grounds mechanics so that they were qualified to do their own conversions after receiving the initial two mowers.

The only barrier in this project for Common Grounds was that the technology was relatively new. There were small issues to work out with the carburetors and mower settings. Overall, though, the project was a learning experience for all parties, and it is important to keep in mind that there is always a learning curve with new technologies.

### Fleet Facts

**Organization:**

Common Grounds Landscape Management (TN)

**President:**

John Watson

**Industry Type:**

Landscaping

**Conversions Began:**

2008

**Vehicles Converted:**

20

**Estimated Annual Propane Usage:**

2010: 1,500 gallons

2011: 1,200 gallons

2013: 5,600 gallons

**Total:** 8,300 gallons

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## Results

It is crucial to Common Grounds that they insert sustainability into everything that they do. Watson feels that the landscaping industry as a whole needs to own this concept and that this case study helped them move forward in that direction. He says, "Anything that we can do to protect the environment that we work and live in, we should do."

Since the case study, Common Grounds has consumed 8,300 gallons of propane. Although they do not keep direct records of emissions reduction, they note that emissions are cut by 90% when using propane compared to gasoline. They also make the point that 10% of our national GHG emissions is produced by lawn equipment.

The propane lawn mowers have saved, on average, about 30% per year on costs for Common Grounds. The return on investment is at one year per mower, although this depends on the amount of hours each mower is run. Other than the financial benefits, other results of the project include improving of the company's public image.

## Lessons Learned and Next Steps

Throughout the process, one of the hardest concepts to grasp for Common Grounds was that not all post-conversion operation problems were caused by propane. Most mechanics assume that any issue the motor develops must be due to the technology. However, it is important to remember that there are still basic engine repairs and problems. Watson suggests implementing new technology initially as a study, so everyone can familiarize themselves with the new machines. It also gains more enthusiasm and less resistance from the mechanics and operators if they feel like they are involved with an experiment that could make the company better.

As for Common Grounds, all new mowers purchased are and will continue to be propane. Watson now limits his mower searches to OEMs that supply propane mowers or mowers that are easily converted. Common Grounds is also looking to expand their use of propane and invest more in the technology; they are reviewing the feasibility of converting their trucks and acquiring funding assistance. While the company is primarily looking to reduce mileage, the cost of conversion would either need to come down or it would need to be grant funded. Overall, Watson says that this has been a beneficial project and a great growing and learning experience for the company.

For more information on this and other alternative fuel and advanced technology vehicle programs contact Kristy Keel-Blackmon, Project Facilitator at the East Tennessee Clean Fuels Coalition, by phone: 865.974.9665 or via email at [kristy@etcleanfuels.org](mailto:kristy@etcleanfuels.org). The East Tennessee Clean Fuels Coalition is a designated Clean Cities Coalition by the U.S. Department of Energy.

For specific information regarding the Common Grounds project, contact John Watson, President, by phone: 865.947.1556 or via email at [jwatson@commongroundsinc.com](mailto:jwatson@commongroundsinc.com).

