Abstract

Our group wanted to focus our project on improving transportation. We decided to focus our efforts locally on SNAP, a student driven safety transportation service. We plan to provide more efficient methods for powering these vehicles.

Background

With the advancement of society the world has become more dependent on using fossil fuels for transportation. According to the "European Environment Agency", transportation alone accounts for 24.5% of carbon dioxide emissions. SNAP currently is powered by fossil fuels and is driving approximately 150 miles per week. Although this may not seem like a big change, with many people converting to electric vehicles, this method would have a large impact.

Which looks better?



www.Wikipedia.org



http://www.flickr.com/photos/argonne/6851918928/

Improving Transportation

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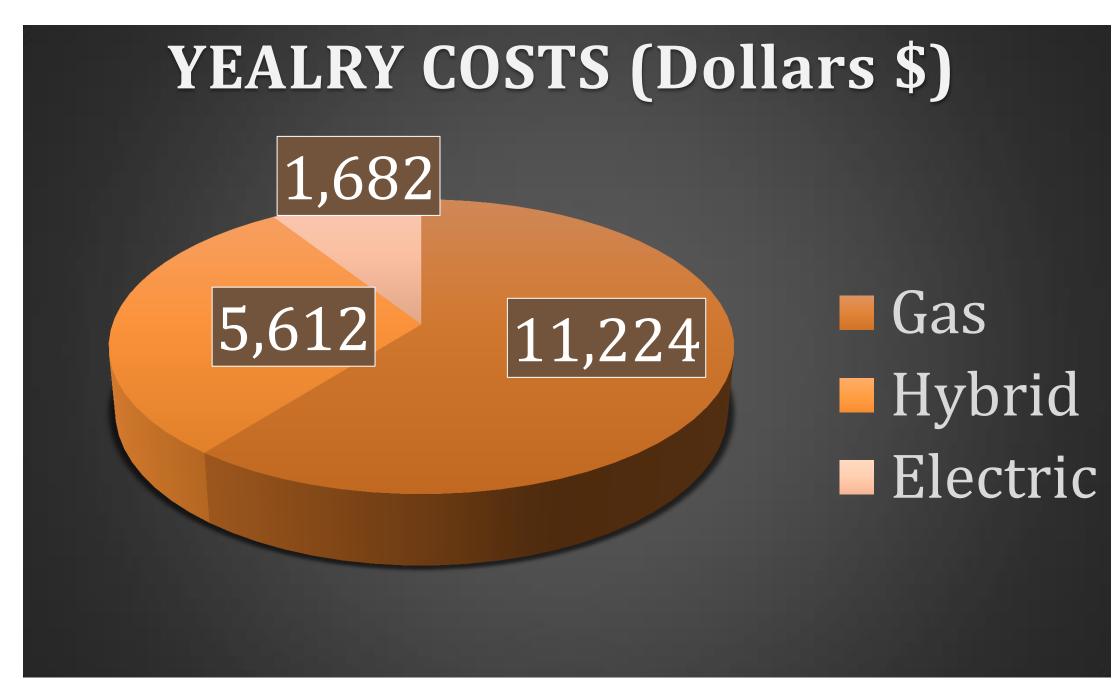
Project Goals/Objectives

• To provide alternatives that have less financial and environmental costs:

- ➢ Gasoline (SNAP's current method)
- > Hybrid (Integration of Electric and Gas)
- ➢ Electric

Procedure

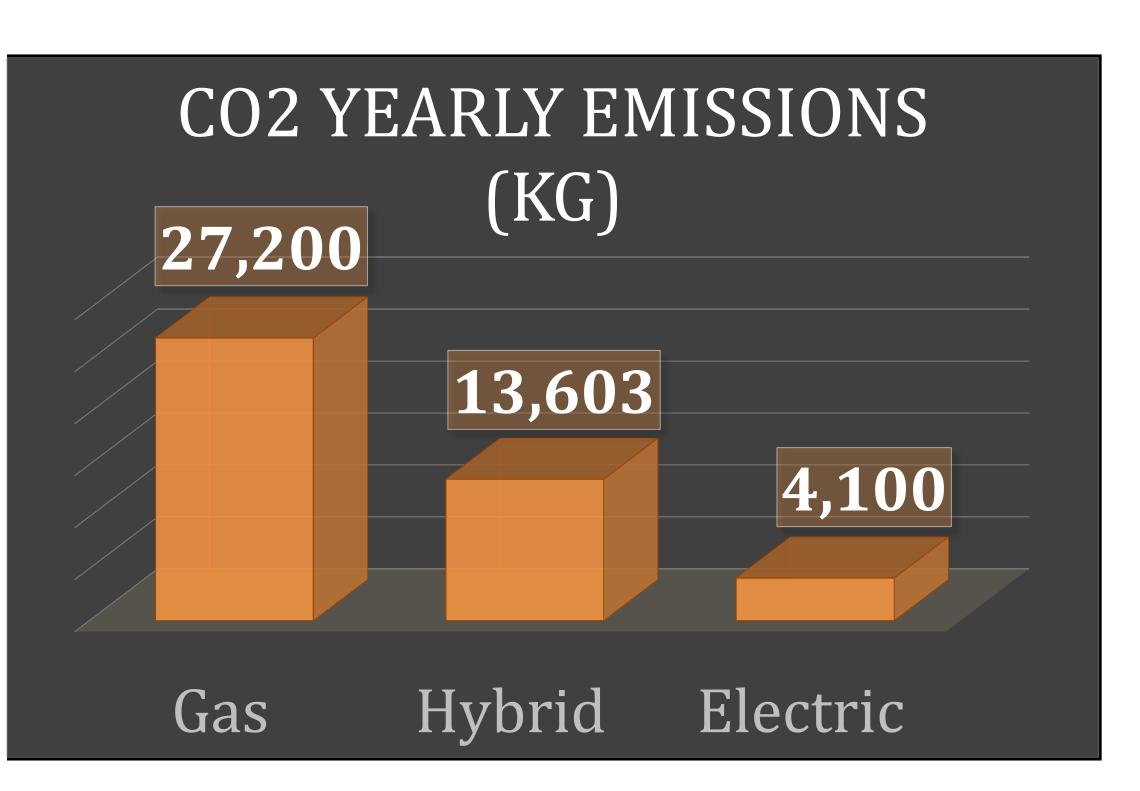
- . Gather sources, contacts and data
- 2. Compile data and calculate costs
- 3. Talk to suppliers and owners to find if the eventual savings and environmental costs justify the initial cost
- 4. Install the charging stations and vans



The average yearly cost of driving these types of vans about 150 miles a week.

Results/Outcomes

- Electric SNAP will cost about 15% of what gas SNAP costs
- Electric SNAP will also release only 15% of the carbon that Gas SNAP releases



The average yearly C02 emissions for vans that use Gas, Hybrid, and Electric technologies.

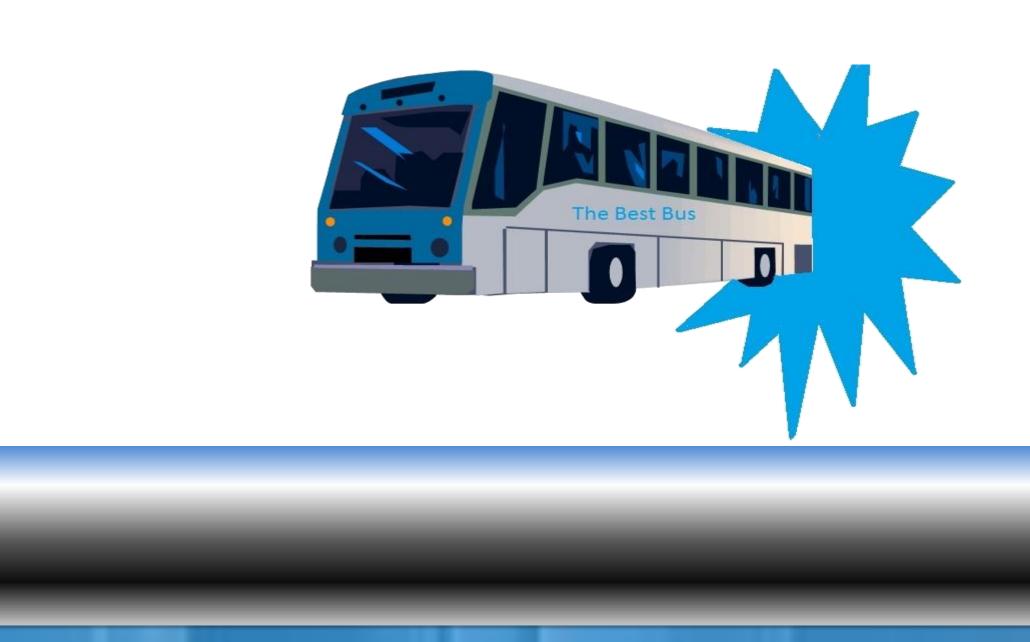
Conclusions/Recommendations

- costs and advertise our project

The team for Improving Transportation would like to thank Professors Bakermans and Pfeifer for their leadership and guidance. We would also like to thank Christina Noyes and Tatiana Huet De Bacellar for their support and advice.

- 2013. <http://www.epa.gov/>.
- states>

- Nov. 2013. • More references in the report



The data shows that implementing this project would be successful and affordable • For future projects we would work on convincing companies earlier to help subsidize

Acknowledgments

References

• "US Environmental Protection Agency." *EPA*. Environmental Protection Agency, n.d. Web. 06 Dec.

• Elam, C. R. "SelectUSA." The Automotive Industry in the United States. Commerce.Gov, n.d. Web 11 Nov. 2013. http://selectusa.commerce.gov/industry-snapshots/automotive-industry-united-

• Greenhouse Gas Emissions from the U.S. Transportation Sector 1990–2003. Rep. N.p.: U.S. Environmental Protection Agency Office of Transportation and Air Quality, 2006. Print. "SNAP - Transportation Services." Campus Police:. Worcester Polytechnic Institute, n.d. Web. 11