

Minnesota Legislative Energy Commission

Overview of Natural Gas Vehicles (NGVs)
in Minnesota

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- National Momentum of NGV's
- Economic Advantages
- NGV's in Minnesota
- Challenges for Natural Gas as a Transportation Fuel in Minnesota
- Ways to Jump Start NGV's in Minnesota
- Benefits of NGV's to Minnesota
- Questions

Reasons for National Momentum of NGV's



- Increase in natural gas supplies/lower natural gas prices
- Increasing NGV availability
- Increasing infrastructure development
- Corporate fleet adoption of NGV's: (e.g. AT&T, refuse, UPS)
- Increase in availability of state incentives.
 - **Currently, no MN incentives.**
 - National fleets (i.e. UPS) are adding NGV's in states where incentives exist.

Economic advantages



- Per Gallon Pricing in Minnesota*:
- CNG Pricing Range = \$1.89 to \$2.14/GGE
 - Per CNGPrices.com
- Gasoline Price = \$3.19; CNG lower by \$1.05 - \$1.30/gallon
 - Per MinnesotaGasPrices.com
- Diesel Price = \$3.70; CNG lower by approximately \$1.50/gallon
 - Per TruckMiles.com
- In addition, natural gas prices are significantly more stable than gasoline and diesel prices thus, CNG prices don't vary much.

*As of 10/23/2014,

Minnesota NGV Overview



- Dedicated or bi-fuel NGVs currently operating in MN = 300-400 vehicles.
- Public fast-fill CNG stations in MN = 12
 - Only 4 are within 25 miles of the Twin Cities.
 - Only 1 station is located in Minneapolis and 0 in St. Paul.
 - Nothing at the airport.
- Private slow-fill CNG stations in MN = approx. 12

Examples of Minnesota NGV Connections



- 3M Maker of CNG tanks
- Chart Industries Maker of cryogenic LNG tanks
- CHS CNG infrastructure builder
- Cummins N Power Engine maker distributor
- GE Maker of “CNG in a Box”
- McNeilus Maker of refuse/cement trucks
- New Flyer Maker of CNG buses
- TruStar CNG infrastructure builder

Key NGV Opportunities in MN



- Fleets with high miles and low MPG vehicles result in quick paybacks
- Transit
 - Los Angeles area has over 2,000 CNG buses
 - St. Cloud, Minnesota's Metro Bus acquired 29 CNG buses in 2014
 - Can also provide impactful emissions reductions
- **Commercial heavy duty fleets (refuse, delivery, semi's)**
- Government fleets (e.g. city, state, county, federal)

Challenges for Natural Gas as a Transportation Fuel in MN



- Lack of sufficient CNG fueling infrastructure.
 - Station costs
- Fleet hesitation to convert to CNG:
 - Station availability affects productivity
 - Incremental vehicle cost
 - Potential changes to maintenance facilities
 - New fuel/change
- Limited vehicle availability, especially light duty.
- Inconsistent support for NGV's amongst states nationally.

Ways to Jump Start NGV's in Minnesota



- Take advantage of available grant funding (e.g. MnDOT Office of Transit application process, DOE).
- Provide additional funding to construct public access fast fill CNG fueling stations.
 - Provide Tax Credits or other methods to underwrite the cost of fueling infrastructure, facility modifications and vehicle purchase/conversions.
- Provide incentives for producing biogas for vehicle fuel (not just energy generation).
- Provide a level playing field for all alternative fuels.

NGV Benefits to Minnesota



- Cleaner air
- Less expensive fuel costs
- Positive impact on Minnesota's economy and jobs creation.
- Energy Independence
- Can show Minnesota as a leader in the use of multiple alternative fuels.

Questions



Questions?