

The Transit Express CNG Experience



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About Transit Express

- Contract transit/shuttle transportation services company
 - Demand response transit services for Milwaukee county and other outlying counties (e.g., ADA and special needs passengers)
 - Private shuttle services (e.g., weddings, corporate excursions)\
- 600,000 passenger trips/year
- Fleet operates 24-7-365
- 3,780,000 miles per year
- 256,000 gallons of gasoline and diesel use/year
- 50,000 GGE of CNG use/year

About Our Fleet



- ~ 150 vehicles in total fleet
- Most are Sprinter vans (diesel); few trolleys
- 22 vehicles are CNG powered
 - 15 OEM Dodge 2500 passenger vans (MY 2001)
 - 1 OEM Ford E350 passenger van (MY – 2003); (portable fueler)
 - 6 Champion 32' 28-passenger buses (FCC chassis w CWI B Gas)
 - Purchased from US EPA - employee shuttle service

About Our Fleet

- Passenger vans travel average of 200-275 miles per day
 - Depending on routes, shifts, some vehicles travel up to 350/day
 - Avg van travels 25-28K/yr, consumes 2500 GGE of CNG/yr
 - Lots of stops, engine run time during hydraulic lifts
 - Generally, van leaves with scheduled pick-up manifest for the day but daily fuel consumption can exceed fuel tank capacity (~18-20 GGE) so units occasionally need to stop at fleet yard to fuel during rounds (as needed)
- 2 buses run regular routes, 4 are on charter duty
 - Fuel consumption per bus varies; avg = 20-25 GGE/day

About Our CNG Fueling Station

- Two compressor packages: one for time-fill system and another for fast-fill system (inter-connectable if needed)
- Station equipment owned and maintained by WE Energies on Transit Express property (property lease). Station is accessible.
- Public access fast-fill station serves Transit Express and variety of other area fleets (about 30-40,000 GGE/yr)
 - Occasional We Energies vehicles (light-duty sedans/pick-ups)
 - USPS (maintenance vehicles and some mail delivery vehicles)
 - Outpost food stores/deliveries
 - Milwaukee School System (maintenance vehicles)
 - Miscellaneous consumers and commercial contractors (HVAC, etc)

About Our CNG Fueling Station

- One 110scfm (~55 GGE/hr) CNG compressor package serves the time-fill fueling system for overnight and idle time fills
 - No storage
 - 14 posts, each with 2 hoses @ 3600 psi
- Another 110scfm CNG compressor package serves fast-fill dispenser for “top off” and public access
 - Three-bank high-pressure cascade CNG storage system
 - 22” dia. 20’ long, 10Kscf tanks; ~ 200-250 GGE total capacity
 - Controller stages discharge + fill sequence; compressor operations
 - 2 hose dispenser: 1 @ 3000psi; 1 @ 3600psi
 - Dispenser has credit card/fueling card payment processing system



About Our CNG Costs


- Transit Express enjoys favorable fueling arrangement with WE Energies (allows us to focus on our business)
- WE Energies' performs regular PM
 - Assures system has high “up” time % and reliable operations
- WE Energies collects Wisconsin road taxes (\$.247/GGE) and federal motor fuels excise taxes (\$.183/GGE) on the Transit Express gas bill and paid to state/feds
 - Reduces administrative burden
- WE Energies also processes and passes back full \$.50/GGE value of federal motor fuels excise tax credit on gas bill

About Our CNG Costs

- Transit Express pays gas bill (special NGV 3 rate provides discount similar to large industrial customers) and electric bill but has no maintenance costs (other than our own driver errors, e.g. driver pulls away with hose attached) and no capital costs.
- Transit Express receives revenues from the payment processor with complete data reporting (customer, volumes, dates, etc).
- All customers (including municipalities and other fed tax exempts) pay the “retail” pump price based on rate calcs provided by WE Energies each month
- Transit Express, municipalities and other tax exempts file for federal motor fuel tax reimbursement using IRS 8849

Sample CNG Costs

	Jan 08	Feb 08	Mar 08	Apr 08	May 08	Past 12 Mo. Avg.
Gas cost/therm	.8968	.9558	.9806	1.1117	1.1731	.9015
= Gas cost/GGE (1.248 x therm cost)	1.119	1.192	1.223	1.387	1.464	1.125
+ Electric compression (1KW/GGE)	0.125	0.125	0.125	0.125	0.125	0.125
+ Fed Excise Tax /GGE	0.183	0.183	0.183	0.183	0.183	0.183
- Fed Excise Tax Credit	(0.50)	(0.50)	(0.50)	(0.50)	(0.50)	(0.50)
+ WI Road Tax /GGE	0.247	0.247	0.247	0.247	0.247	0.247
= Cost at pump	1.174	1.247	1.278	1.442	1.519	1.180
Net cost to Transit Express after federal motor fuel excise tax reimbursement (\$.183)	0.991	1.064	1.095	1.259	1.336	0.997



Thoughts and Comments About Our NGV Program

Suggestions/Tips
For Successful Implementation

Thank You For Your Interest



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