US DOE Community Partner Projects:

U.S. Fuels Across America's Highways -- Michigan to Montana (M2M)

Ted Barnes, P.E.
Gas Technology Institute
April 2018



Company Overview

- > Independent, not-for-profit established in 1941
- > GTI provides solutions to clients in the private sector, federal government, and state government agencies
 - 300+ Active Projects
- > Applied collaborative research, development, & demonstration across the energy value chain
 - Supply, Conversion, Delivery, and Utilization









MANAGEMEN⁷



TECHNICAL/









U.S. Office Locations

GTI Office Locations

- Des Plaines, IL (Headquarters)
- Capitol Hill
- Woodland Hills, CA
- Davis, CA
- Houston, TX

Subsidiary Locations



• Chicago, IL

FR®NTIER energy

- Oakland, CA
- West Sacramento, CA
- Davis, CA
- San Ramon, CA
- Los Angeles, CA
- · Cazenovia, NY
- Austin, TX





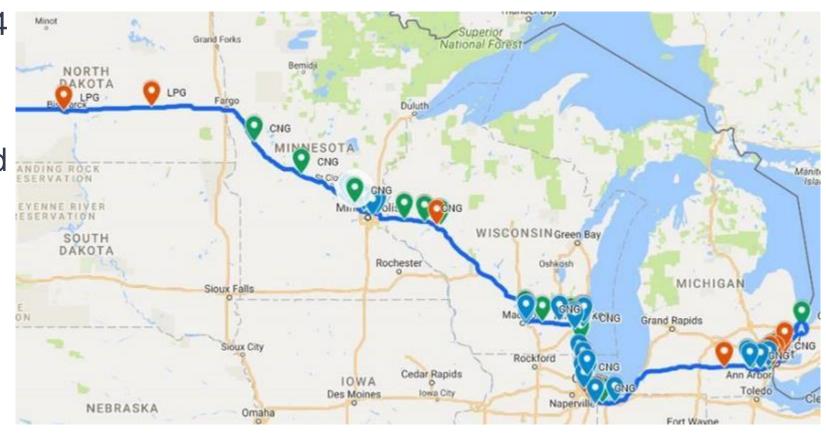
- US DOE selected M2M Project to receive \$5M with \$5M in participant cost share
- M2M alternative fuel corridor along I-94 from Billings, MT to Port Huron, MI
- Project started July 2017; focus on Electric, Natural Gas, and Propane
- Goals include:
 - Develop team to guide the creation of an alternative fuel corridor
 - Deploy selected stations and vehicles
 - Provide outreach, education, and training to support sustainable alternative fuel markets







- M2M corridor will cover I-94 from Billings, MT to Port Huron, MI
- Deployment: 60 trucks and 15 alternative fueling stations committed
- Planning: Sustainable alternative fuel corridor model (outreach, training, community-based partnerships)



Existing Fueling Station Map – M2M Corridor (Blue – DCFC, Red – Propane, Green – CNG)





Project Plan

- Provide leadership through community-based partnerships with Clean Cities Coalitions, State DOTs, SEOs, station providers, fleets, and utilities
- Deploy fueling stations (electric vehicle (EV) DC Fast Chargers, CNG, and propane stations) and CNG long-haul trucks
- Identify and fill gaps in alternative fuel station locations
- Leverage and expand on existing Smart Mobility programs in this region
- Provide outreach, education, and training to critical stakeholders







Role	Organization(s)
Awardee	Gas Technology Institute (GTI)
	Greater Lansing Area Clean Cities, MI
PLANNING TEAM	South Shore Clean Cities, IN
Clean Cities	Chicago Area Clean Cities, IL
Coalitions/Member	Wisconsin Clean Cities, WI
Organizations	Twin Cities Clean Cities Coalition (ALA), MN
	North Dakota Clean Cities (ALA), ND
DEPLOYMENT TEAM	Infrastructure providers – ZEF Energy (DCFC), Trillium (CNG),
Private Sector	Landmark (Propane)
Partners	Public and Private Fleets – Kwik Trip, CTS
	Michigan Energy Office, MI
	Tri-County Regional Planning Commission, MI
	Indiana Dept. of Environmental Management, IN
Community-based	Wisconsin Office of Energy Innovation, WI
Stakeholders	City of Minneapolis and City of Saint Paul, MN
	University-based Smart Mobility Programs
	DOTs (Federal, States, Major Municipalities)
	Utilities





Outreach Plan

- Dedicated website to highlight lessons learned, identify key stakeholders, document best practices and leverage existing US DOE information
- Case studies for specific industries and community partnerships
- Marketing communications strategy to build awareness and visibility for promoting alternative fuel use in the seven-state region



Turning Raw Technology into Practical Solutions

www.gastechnology.org | @gastechnology











