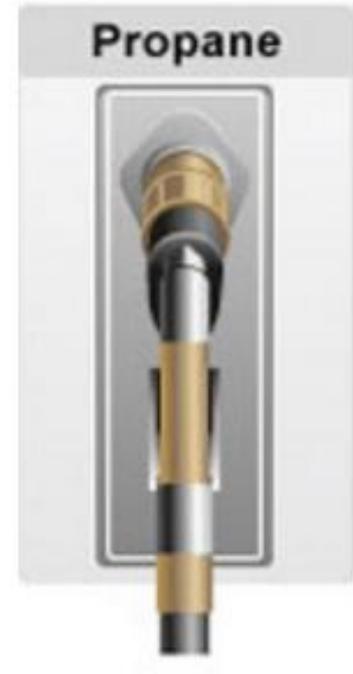


Propane Autogas Technology Forum

Focus on Infrastructure:

Improving the Fueling Station Customer Experience



August 10, 2016

Stacy Noblet

ICF International

Supporting the National Renewable Energy Laboratory (NREL)

Overview

- Framing the Challenge
- Our Approach and Progress
 - Fueling Station Locator
 - Industry Collaboration
- What We've Learned
- Looking Forward

A Multi-Faceted Challenge



Continue to build interest in and support of propane motor fuel sales through **partnerships.**

Approach and Successes

AFDC Station Locator

Find Stations | Plan a Route

Q address, ZIP, or state... **Go**

All Fuels

[more search options](#)

21,421
alternative fuel stations
in the United States

Excluding private stations

Location details are subject to change. We recommend calling the stations to verify location, hours of operation, and access.

ABOUT THE DATA

Embed | Submit New Station

Legend

- Biodiesel
- CNG
- Electric
- Ethanol
- Hydrogen
- LNG
- Propane

Map data ©2016 Google, INEGI | Terms of Use

 [Go to mobile version](#)
[Download iPhone app](#)

[Download Data](#) | [Developer APIs](#)

Data last updated: 08/05/2016



U.S. Department of Energy

A Closer Look...



Waitlou Propane Gas

455 Cambridge St
Fredericksburg, VA 22405
540-373-0850

[Directions](#) | [Find Nearby Stations](#)

Access: Public

Hours: 8am-7pm M-F, 8am-6pm Sat, 9am-5pm Sun

Payments accepted: Cash, Check, American Express, Discover, MasterCard, VISA

Notes: Located on Route 1, 1.5 miles north of the river

Fuel Available

Liquefied Petroleum Gas (Propane)

Services: Primary - Fueling services consistently offered during business hours and special vehicle fuel pricing available.

Last confirmed: December 2015

Location details are subject to change. We recommend calling the stations to verify location, hours of operation, and access.

[Report a change](#)



All locations are approximate



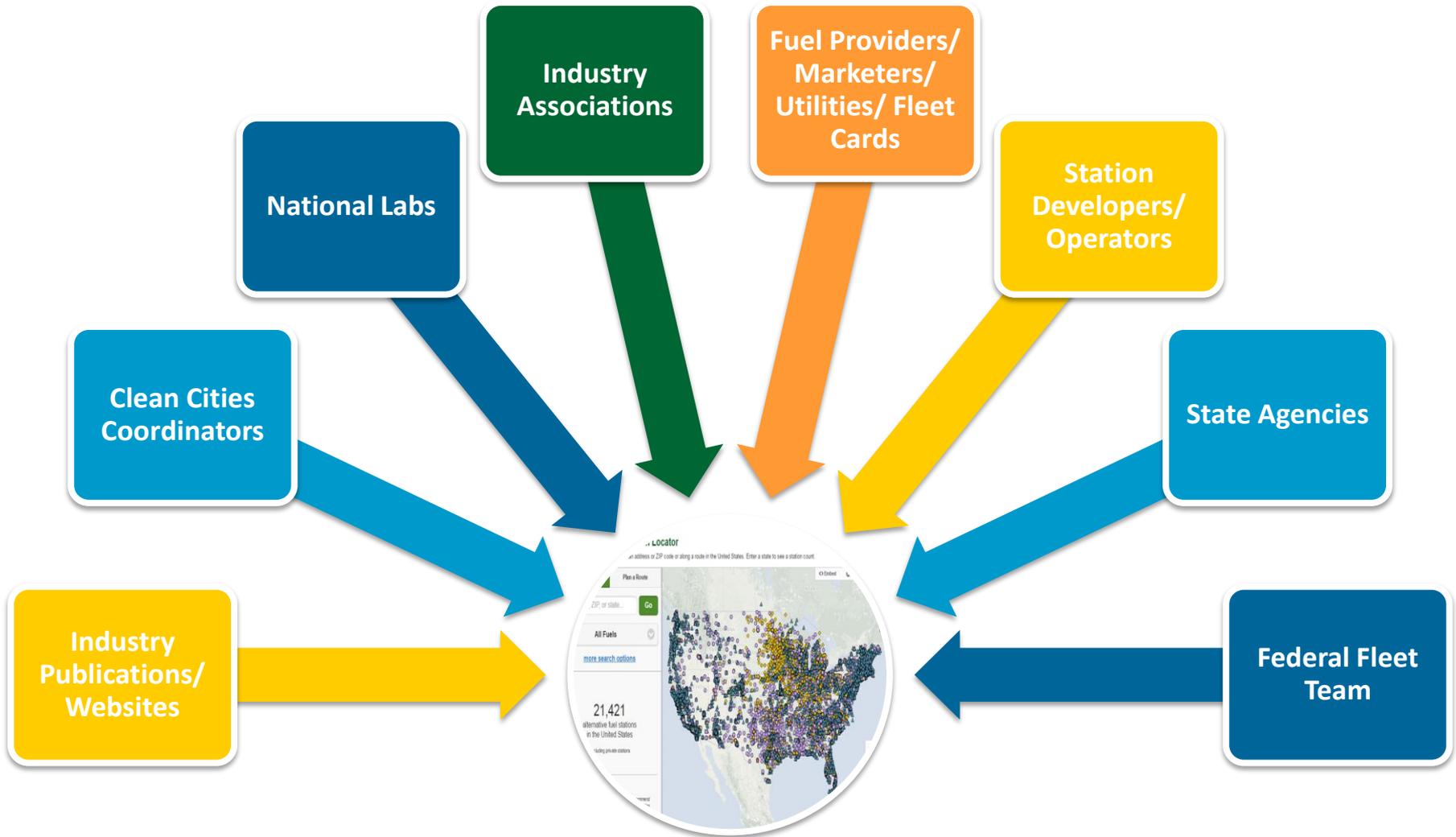
Data Collection and Confirmation

- **Maintain** a Robust Baseline
 - Confirm, update, remove
- **Grow** the Database
 - Collect, review, add

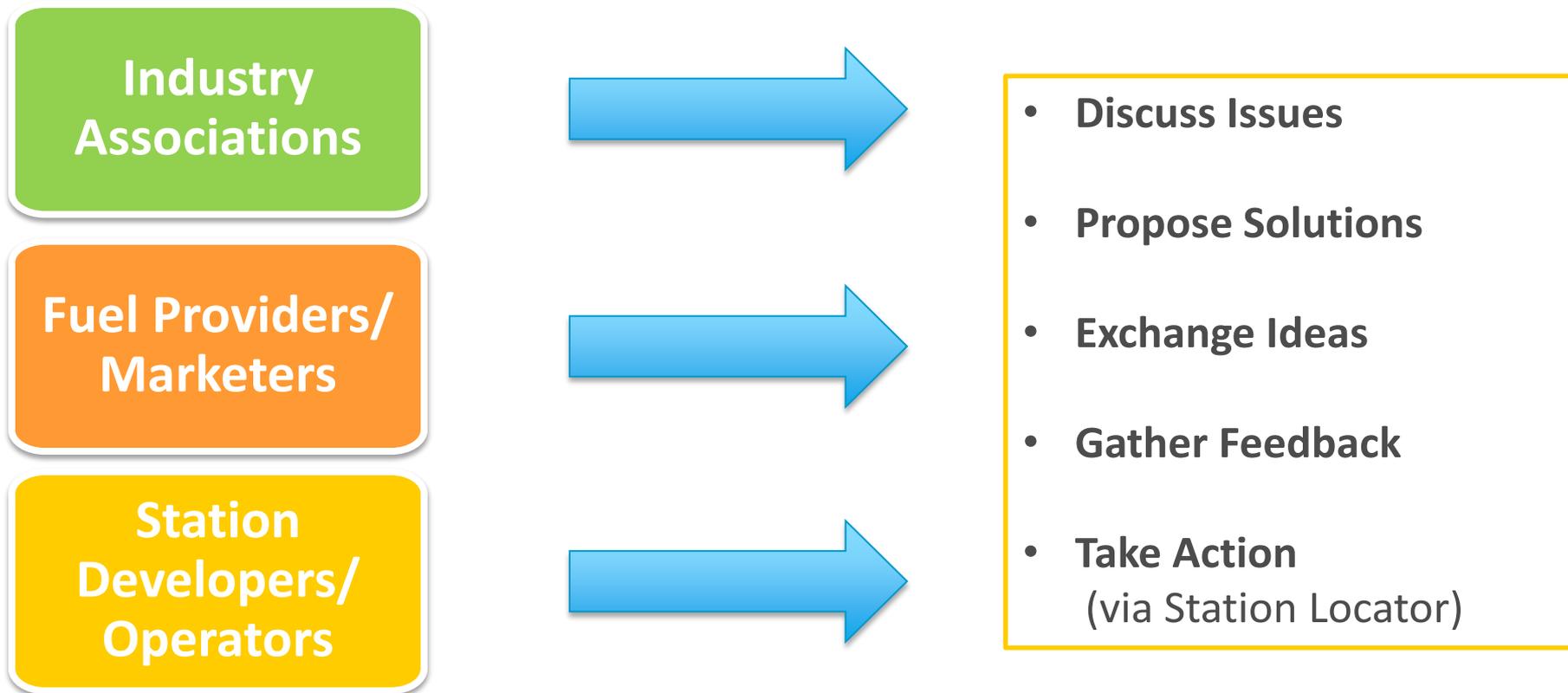
New Station Data Sources: *The Likely Suspects*

- Conversations with station contacts
- Online submissions (via the AFDC)
- Clean Cities coordinators
- Trade media

Collaborations and Resources



Industry Working Group



Primary and Secondary Station Categories

- **Primary:**

- ✓ Capable of fueling motor vehicles
- ✓ Accepts credit cards
- ✓ Provides vehicle fueling during normal business hours
- ✓ Equipped with “purpose-built” dispenser

- **Secondary:**

- Capable of fueling motor vehicles
- Accepts any form of payment
- Fueling may be available by appointment only
- Dispenser may be used for other fills

Primary and Secondary Station Categories

Find Stations Plan a Route

Q address, ZIP, or state... **Go**

Liquefied Petroleum Gas (Pr...

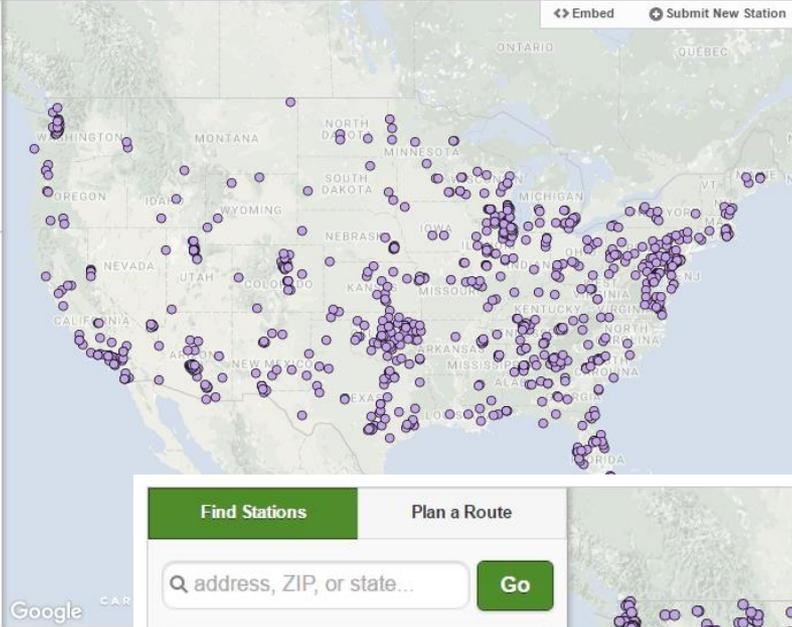
[more search options](#)

847
propane stations
in the United States

Excluding private stations

Location details are subject to change. We recommend calling the stations to verify location, hours of operation, and access.

ABOUT THE DATA



Find Stations Plan a Route

Q address, ZIP, or state... **Go**

Liquefied Petroleum Gas (Pr...

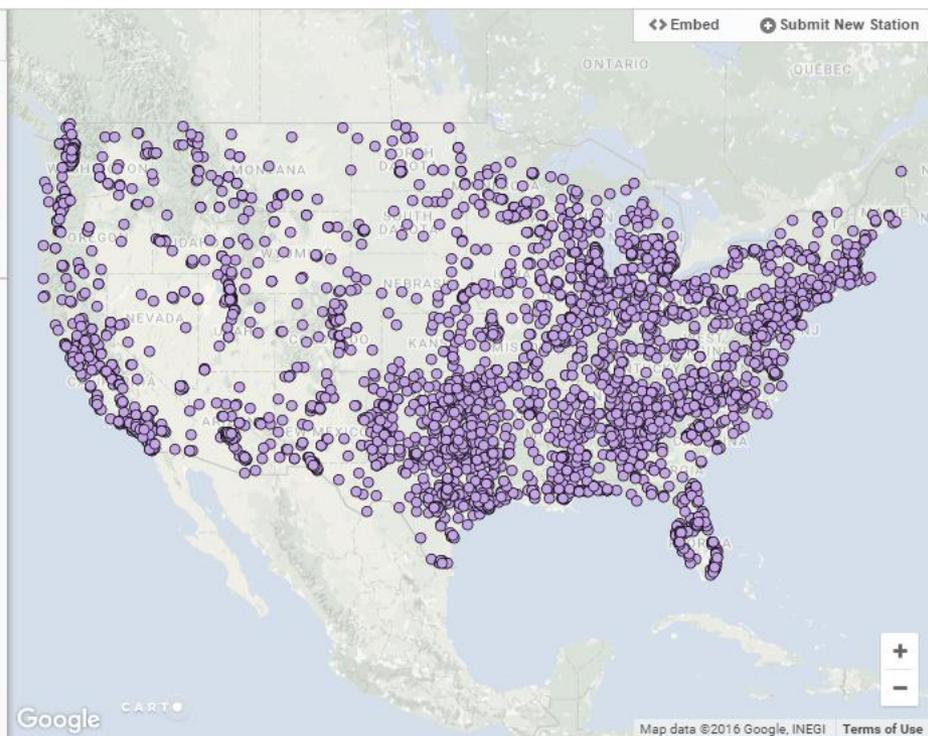
[more search options](#)

3,363
propane stations
in the United States

Excluding private stations
Including stations with limited vehicle-specific services

Location details are subject to change. We recommend calling the stations to verify location, hours of operation, and access.

ABOUT THE DATA



Role of Euro Nozzle

- Key for Positive Customer Experience
- Future Requirement for Primary Stations?
- Example from the Field: Standard for U-Haul Upgrades

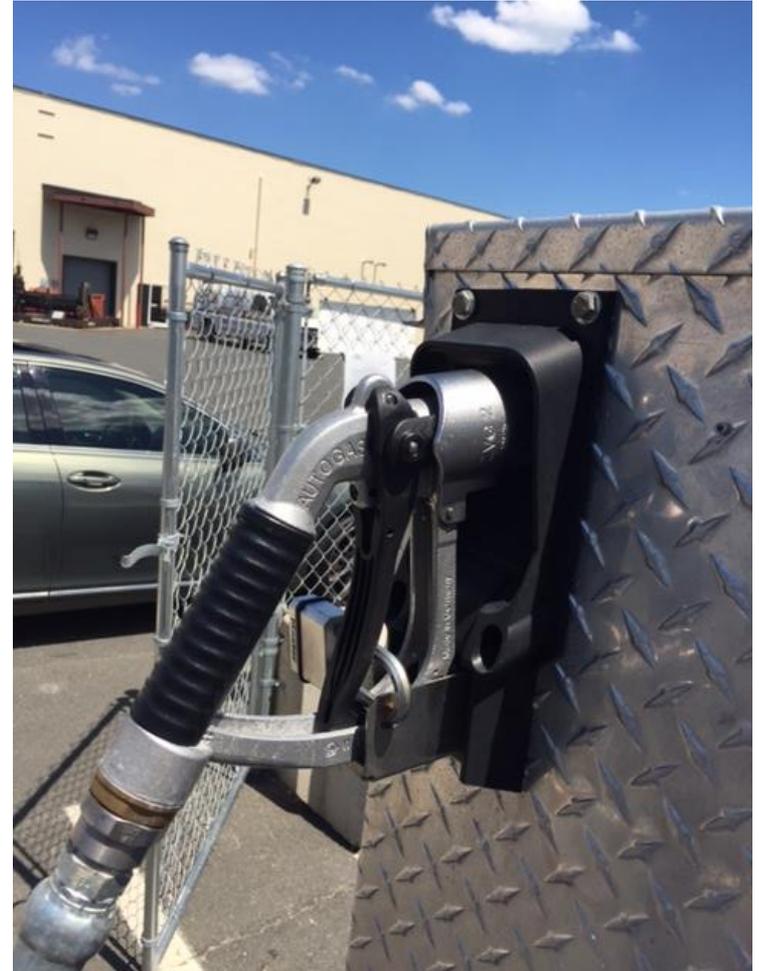


Photo credit: HOCON Gas

Key Takeaways (to date)



- Fueling Station Data:
 - Comprehensive, reliable, readily available
 - Realistic, consistent
- Education:
 - Much room for improvement at the station level
- Importance of Partnerships!

Future Plans and Next Steps

- **Efforts Underway**

- Implementing recent “primary” station category refinement
- Station capabilities assessment and verification

- **Call to Action**

- Participate in station data collection efforts
- Explore opportunities to educate station staff
- Connect with your local Clean Cities coalition

Thank You!

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