NATURAL GAS
DRIVING TOWARD A
CLEANER TOMORROW
PEOPLES NATURAL GAS APPROACH TO
PROMOTE NATURAL GAS VEHICLES

April 15, 2013
Peoples Gas

- More than 7,000 miles of pipeline in the heart of the Marcellus Shale region

127 Years Experience in Natural Gas Mid Stream and Local Distribution Company (LDC) business

Serving over 420 customers in Southwestern Pennsylvania
Technology Bridging the Gap

Abundant Natural Gas Supply

Natural Gas Technology >> Environmental and Economic Benefits

Natural Gas Advancing & Supporting Business & Technology
How does Peoples Convey the Benefits of Natural Gas for Transportation?

1. EDUCATION

2. PROMOTION

3. FACILITATING THE USE OF NGVs
EDUCATION: Why Natural Gas for Transportation

- **Natural Gas is CLEAN**
  - Mostly methane, only one carbon atom
  - Reduces GHG by 21-27%
  - Reduces particulate matter by up to 95%

- **Natural Gas is SAFE**
  - Higher ignition temperature than diesel gasoline (1000 - 1100 degrees F)
  - Narrow range of oxygen/fuel combustion ratio (5-15%)
  - Highly engineered tanks and components

- **Natural Gas is POWERFUL**
  - Octane rating of ~130
  - HD natural gas engines have equivalent torque and horsepower to diesel counterparts

- **Natural Gas is QUIET**
  - HD engine DB level 80-90% lower than diesel

---

Education

• Customer Awareness Strategies
  • Students
    • High School – Alternative Fuels Groups; Energy Fairs
    • Universities – Engineering School Advisor for Energy and Public Policy Class CMU,
      Presentation and provide NGV at SAE Events on campuses
      (University of Pittsburgh, CMU, Penn State)

Inform and Participate in the Dialog of the Learning Community
Promotion

• Participation in Promotional Venues Exhibit Natural Gas Vehicle (Cloud Car)
  • Earth Day Events
  • SAE Events
• Collaborate with Key Organization Stakeholders
  • Pittsburgh Region Clean Cities
    • Odyssey Day
    • CNG Conversion Workshop
  • Marcellus Shale Coalition Meetings
    • Committee Events – Shale Summit
• Community Events Organized by Borough Managers, Public Works Depts., Municipalities
• Work with First Responders
• Vintage Car Special Events

Environment and Economy wins with Natural Gas!
Facilitating Use of NGVs

- Peoples assists customers with NGPV Rate
- Peoples assists fleets that want to convert / acquire NGVs
- Peoples assists refueling station developers who want to improve the infrastructure
- Natural Gas Advancing & Supporting Business & The Environment
- Peoples informs fleets about programs that facilitate ($) acquiring NGVs
- Peoples works with variety of vehicle fleets
Facilitating CNG Vehicle Conversion and Refueling for Variety of Fleets

- School Buses
- Transit Buses
- Shuttle Vehicles
- Utility Vehicles
- Refuse Vehicles
What Drives Fleets to Natural Gas?

Lynn Lyons, Director, Market Development for Pioneer Natural Resources says, "People will drive across town to save 10 cents a gallon at the pump. What would you do to save $1 or more?"

(USA Today, March 9, 2013).

242 Ram 2500 HD CNG pickups delivered to Oklahoma State Capitol (Source: austinauto boomer)
Helping Fleets to Start the Process

- **VEHICLES**
  - Review your Fleet Profile
  - Develop a Fleet Replacement /Conversion Plan
  - Review Budget Options

- **REFUELING STATIONS**
  - Contact Natural Gas Company
    - Provide prospective location – Determine Pressure & System Demand Impact
    - Refueling Needs
    - Prospective Equipment Specifications

**SUBMIT GAS APPLICATION!! IMPORTANT TO THE EVALUATION PROCESS**
Success Stories

• VEHICLES
  – 2012 -2013 Activity
  – School Bus Fleets to CNG
    • 30/ 150 buses Converted; 3 New CNG Stations, 1 Semi Public New Station (Butler Co.)
  – 3 Trash Hauler Projects Underway
    • 2 New Refueling stations; 1 Semi Public
  – 1 Uniform Co. – 9 CNG vehicles Plans to Expand 2013 and Upgrade their private refueling Station

• REFUELING STATIONS
  – Peoples has made existing private Company Stations available for Pilot Projects
Summary

Benefits of Natural Gas for the Commonwealth

• Environmental Fleet Emissions Reductions
• Fuel Cost Advantage & Stability with Natural Gas
• Comparable or Better Performance & Maintenance to Gasoline/Diesel fuel Vehicles
Natural Gas
Clean, Reliable, Local, Abundant
Preserving the Economy and our Quality of Life

Source: pittsburghgreenstory.org The Environmental Transformation of an American Industrial City, Photo Gallery,
# Contact Information

<table>
<thead>
<tr>
<th><a href="mailto:Lutitia.A.Clipper@peoples-gas.com">Lutitia.A.Clipper@peoples-gas.com</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Peoples Natural Gas Company</td>
</tr>
<tr>
<td>1201 Pitt Street</td>
</tr>
<tr>
<td>Pittsburgh, PA. 15221</td>
</tr>
<tr>
<td>(412) 244-2583</td>
</tr>
<tr>
<td><a href="http://www.peoples-gas.com">www.peoples-gas.com</a></td>
</tr>
</tbody>
</table>
QUESTIONS
Resources

• Price, R. (2012). Why Natural Gas, Pittsburgh Region Clean Cities
Peoples Natural Gas serves 16 western Pennsylvania counties from 14 office locations.

<table>
<thead>
<tr>
<th>Location</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altoona Field Office</td>
<td>100 E Bellwood Ave, Altoona PA 16602</td>
</tr>
<tr>
<td>Dice Compressor Station</td>
<td>2300 Rt. 286, Pittsburgh PA 15239</td>
</tr>
<tr>
<td>Gibsonia Field Office</td>
<td>5600 Community Center Dr, Gibsonia PA 15044</td>
</tr>
<tr>
<td>Girty Compressor Station</td>
<td>115 Falling Oaks Lane, Shelocta PA 15774</td>
</tr>
<tr>
<td>Greensburg Field Office</td>
<td>195 Donohoe Rd, Greensburg PA 15601</td>
</tr>
<tr>
<td>Grove City Field Office</td>
<td>1871 Mercer Grove City Rd, Mercer PA 16137</td>
</tr>
<tr>
<td>Hopewell Field Office</td>
<td>1315 Gringo Rd, Aliquippa PA 15001</td>
</tr>
<tr>
<td>Johnstown Field Office</td>
<td>3115 Elton Rd, Johnstown PA 15904</td>
</tr>
<tr>
<td>Kiski Field Office</td>
<td>432 Hyde Park Rd, Leechburg PA 15656</td>
</tr>
<tr>
<td>McKeesport Training Facility</td>
<td>2022 Ripple Rd, McKeesport PA 15132</td>
</tr>
<tr>
<td>Monongahela Field Office</td>
<td>1291 W. Main St, Monongahela, PA 15063</td>
</tr>
<tr>
<td>North Shore HQ and Call Center</td>
<td>375 North Shore Drive, Pittsburgh, PA 15212</td>
</tr>
<tr>
<td>Rager Mountain Compressor Station</td>
<td>555 Dishong Mountain Rd, Johnstown PA 15906</td>
</tr>
<tr>
<td>Truittsburg Compressor Station</td>
<td>5093 Truittsburg Rd, Fairmont City PA 16224</td>
</tr>
</tbody>
</table>

Peoples TWP serves 10 western Pennsylvania counties from 8 district locations.

<table>
<thead>
<tr>
<th>Location</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allegheny District Office</td>
<td>6085 Freeport Rd, Natrona Heights PA 15065</td>
</tr>
<tr>
<td>Armstrong District Office</td>
<td>834 Butler Rd, Kittanning PA 16201</td>
</tr>
<tr>
<td>Butler District Office</td>
<td>334 East Cunningham St, Butler PA 16001</td>
</tr>
<tr>
<td>Butler Warehouse</td>
<td>336 East Cunningham St, Butler PA 16001</td>
</tr>
<tr>
<td>Butler Industrial Meter Shop</td>
<td>912 Bryson Rd, Butler PA 16001</td>
</tr>
<tr>
<td>Butler Main Office</td>
<td>205 N Main St, Butler PA 16001</td>
</tr>
<tr>
<td>Indiana District Office</td>
<td>5999 Rte 119, Highway North, Home, PA 15747</td>
</tr>
<tr>
<td>Jefferson District Office</td>
<td>1489 North Elkin Road, Smicksburg PA 16256</td>
</tr>
<tr>
<td>Kinter Compressor Station</td>
<td>2738 Musser Rd, Indiana PA 15701</td>
</tr>
<tr>
<td>Location</td>
<td>Address</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>Valley Field Office and Compressor Station</td>
<td>1140 Margaret Rd Kittanning PA 16201</td>
</tr>
<tr>
<td>Wall Compressor Station</td>
<td>9012 Roberts Hollow Rd Elizabeth PA 15037</td>
</tr>
<tr>
<td>Waynesburg Field Office</td>
<td>127 Woodside Rd Waynesburg PA 15370</td>
</tr>
<tr>
<td>Wilkinsburg Field Office</td>
<td>1201 Pitt Street Pittsburgh PA 15221</td>
</tr>
</tbody>
</table>
Legend
- Peoples Natural Gas Municipalities
- Peoples TWP Municipalities
- Peoples Natural Gas - Peoples TWP overlap

© 2011, Bravo Group, Inc.