Natural Gas Vehicle (NGV) Marketing Program

LNG-CNG-NGV Technical Conference
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Rob Eck, Sales Manager
(716) 857-7711
Eckr@natfuel.com
Presentation Outline

- National Fuel Overview
- NGV Market Summary
  - NGV Refueling Stations
  - Target Market & Market Barriers
- NGV Marketing Program
  - Outreach & Education Plan
  - Sales Plan & Results
  - Regulatory Plan
  - NGV Partnership Pilot Program
- Q&A
National Fuel Gas Distribution Corporation
Service Territory

BUFFALO
Erie
Sharon
Niagara Falls

NEW YORK
PENNSYLVANIA
### National Fuel Gas Distribution Corp.
#### Market Size – FY 2012

<table>
<thead>
<tr>
<th>Market Segment</th>
<th>No. of Customers</th>
<th>Usage (Bcf)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NY</td>
<td>PA</td>
</tr>
<tr>
<td>Residential</td>
<td>483,420</td>
<td>198,324</td>
</tr>
<tr>
<td>Non-Residential</td>
<td>33,009</td>
<td>16,180</td>
</tr>
<tr>
<td>Total</td>
<td>516,429</td>
<td>214,504</td>
</tr>
</tbody>
</table>
NGV Refueling Station Types

- **Time-Fill Station**
  - Fueling time usually 6-8 hours
  - Typical cost range of $100,000 - $1 Million
  - Usually recommended for Private Fleets with vehicles that return to a central location overnight

- **Fast-Fill Station**
  - Fueling time is usually 3-7 minutes
  - Typical cost range of $500,000 - $1.5 Million
  - Required type of station for Public Refueling
# Current NGV Refueling Stations

## Public Access

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. National Fuel SC</td>
<td>West Seneca, NY</td>
</tr>
<tr>
<td>2. National Fuel SC</td>
<td>Niagara Falls, NY</td>
</tr>
<tr>
<td>3. Waste Management</td>
<td>West Seneca, NY</td>
</tr>
<tr>
<td>4. HPW Energy</td>
<td>Westfield, NY</td>
</tr>
<tr>
<td>5. Cotton Well Drilling</td>
<td>Sheridan, NY</td>
</tr>
<tr>
<td>6. Clean Energy</td>
<td>Rush, NY</td>
</tr>
</tbody>
</table>
# Current NGV Refueling Stations

## Private Access

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Waste Management</td>
<td>West Seneca, NY</td>
</tr>
<tr>
<td>2. Modern Disposal</td>
<td>Model City, NY</td>
</tr>
<tr>
<td>3. NYS Office of Parks &amp; Recreation</td>
<td>Niagara Falls, NY</td>
</tr>
<tr>
<td>4. NYS Dept. of Transportation</td>
<td>6 Locations</td>
</tr>
<tr>
<td>5. SUNY at Buffalo</td>
<td>Amherst, NY</td>
</tr>
<tr>
<td>6. Buffalo State College</td>
<td>Buffalo, NY</td>
</tr>
</tbody>
</table>
NGV Target Market - Vehicle Types

- **Light Duty**
  - Passenger Cars, Taxi Cars & Service Vans
  - Added cost of $7,000 - $14,000 vs. gasoline vehicles

- **Medium Duty**
  - Short Haul Delivery Trucks, Transit Buses & Shuttle Buses
  - Added cost of $15,000 - $20,000 vs. gasoline vehicles

- **Heavy Duty**
  - Transit, Shuttle & School Buses, Long Haul Tractor/Trailer Trucks & Garbage Trucks
  - Added cost of $25,000 or more vs. gasoline vehicles
NGV Target Market - Fleet Types

- Food/ Beverage Distribution Companies
- Taxi/ Limousine Services
- Colleges/ Universities/ School Districts
- Contractor/ Service Companies
- Transit Authorities
- Garbage/ Refuse Companies
- Local/ State/ Federal Government
## NGV Target Market Size

### Private Fleets > 10 Vehicles

<table>
<thead>
<tr>
<th>Customer Type</th>
<th># of Companies</th>
<th># of Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Processing</td>
<td>65</td>
<td>3,619</td>
</tr>
<tr>
<td>Construction</td>
<td>95</td>
<td>2,924</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>17</td>
<td>1,725</td>
</tr>
<tr>
<td>Retail/Wholesale</td>
<td>46</td>
<td>853</td>
</tr>
<tr>
<td><strong>All Others</strong></td>
<td><strong>53</strong></td>
<td><strong>2,452</strong></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>276</strong></td>
<td><strong>11,573</strong></td>
</tr>
</tbody>
</table>

Data Source: FleetSeek.com
NGV Market Barriers

- **Refueling Stations**
  - Limited availability/lack of infrastructure
  - High capital cost of Refueling Station equipment and installation

- **NGV’s**
  - Limited availability of OEM dedicated vehicles
  - Higher premium cost for NGV’s vs. gasoline/diesel vehicles
  - Customer concerns about driving range, reliability, maintenance, etc.
NGV Marketing Program
Outreach & Education Plan

- Develop marketing materials
  - Customer brochure, content on NFG web site
- Conduct training events
  - Customer meetings, NGV refueling station tours
  - Partner with Clean Communities of WNY
- Participate in trade shows
  - Buffalo Auto Show, CCWNY events, etc.
- Investigate other O&E options
  - Education & Training Center
  - Develop NGV Maintenance Course
NGV Marketing Program

Sales Plan

- **Conduct market assessment**
  - Focus on fleets > 10 vehicles, returning to a central location

- **Identify best customer candidates**
  - Develop prospect list, conduct sales calls

- **Evaluate customer economics**
  - Conduct free feasibility assessments

- **Partner with 3rd parties for best applications**
  - NYSERDA, NGV Refueling Station Developers, etc.

- **Assist customer with financing where possible.**
  - Utilize NFG NGV Pilot Program, R&D program

- **Document NGV performance and economics**
  - Develop case studies and testimonials
<table>
<thead>
<tr>
<th>Customer</th>
<th># of Vehicles</th>
<th>Refueling Location</th>
<th>Incremental Usage (Mcf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modern Disposal</td>
<td>45 over 5 yrs</td>
<td>At own Private Station</td>
<td>48,789</td>
</tr>
<tr>
<td>Waste Management</td>
<td>44 over 2 yrs</td>
<td>At own Private Station</td>
<td>46,971</td>
</tr>
<tr>
<td>Guard Contracting</td>
<td>2</td>
<td>At NFG Public Station</td>
<td>5,580</td>
</tr>
<tr>
<td>NYS Office of Parks &amp; Recreation</td>
<td>10</td>
<td>At own Private Station</td>
<td>2,200</td>
</tr>
<tr>
<td>Sonwil Distribution</td>
<td>1</td>
<td>At NFG Public Station</td>
<td>1,388</td>
</tr>
</tbody>
</table>
## NGV Sales Results
### Current Significant NGV Sales Cycles

<table>
<thead>
<tr>
<th>Customer</th>
<th># of Vehicles</th>
<th>Refueling Location</th>
<th>Incremental Usage (Mcf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tops Markets</td>
<td>200</td>
<td>At own Private Station</td>
<td>163,000</td>
</tr>
<tr>
<td>Buffalo Fuel Corp.</td>
<td>70</td>
<td>At Public Station only</td>
<td>105,409</td>
</tr>
<tr>
<td>Niagara Frontier Transportation Authority (NFTA)</td>
<td>80</td>
<td>At own Private Station</td>
<td>35,116</td>
</tr>
<tr>
<td>Try-It Distributing</td>
<td>82</td>
<td>At own Public Station</td>
<td>20,437</td>
</tr>
</tbody>
</table>
NGV Sales Results

Number of Customers

<table>
<thead>
<tr>
<th>Year</th>
<th>Individuals</th>
<th>Fleets</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>2011</td>
<td>23</td>
<td>14</td>
</tr>
<tr>
<td>2012</td>
<td>30</td>
<td>17</td>
</tr>
</tbody>
</table>
NGV Sales Results

Annual Usage (Mcf)

<table>
<thead>
<tr>
<th>Year</th>
<th>Individuals</th>
<th>Fleets</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>432</td>
<td>6,128</td>
</tr>
<tr>
<td>2011</td>
<td>936</td>
<td>5,420</td>
</tr>
<tr>
<td>2012</td>
<td>1,967</td>
<td>71,000*</td>
</tr>
</tbody>
</table>

* For illustration purposes only – not to scale
NGV Sales Results
Current R&D Demonstration Projects

- **EcoDual Fuel Conversion System**
  - **Target**: Heavy duty tractor/trailer diesel trucks
  - In lieu of LNG, use blend of diesel and CNG
  - **Benefits**: no loss of power, reduced operating cost, emissions & noise, improved driving range
  - Quick and inexpensive installation, short payback

- **NGV Forklifts**
  - **Target**: Industrial customers with warehouse lift trucks
  - Replacement of propane and electric lift trucks with CNG
  - **Benefits**: reduced operating cost, emissions and maintenance, easier refueling, increased safety
  - Added cost for station & CNG lift trucks, longer payback
NGV Marketing Program

Regulatory Plan

- **Reduce cost of gas for NGV applications**
  - Develop customized sales rates
  - NGV (1) - NFG owned refueling station
  - NGV (2) - Customer owned refueling station
  - SC-13 Transportation Rate

- **Develop incentives to reduce capital cost barriers with refueling stations/vehicles**
  - NGV Partnership Pilot Program
NGV Partnership Pilot Program

Overview

- Approved by NY PSC on November 18, 2011
- Permits NFG to give customer funding to buydown cost of NGV re-fueling station and/or vehicles, thereby lowering payback
- Ensure that program costs are borne entirely by each project through future incremental transportation/sales service charges paid by the customer
- Develop set of measurable deliverables to help NY PSC evaluate the effectiveness of the program
NGV Partnership Pilot Program

Design

- Pilot program with initial term of 3 years.
  - Annual cap of $1 million/year, total of $3 million

- Proposed typical buydowns in range of $10,000 - $200,000. Actual buydown calculated based on incremental margin from each project

- Customer must sign a performance contract with term of up to 6 years. May also be required to provide security.

- Requires reporting of program results and individual project performance to NYPSC
NGV Partnership Pilot Program
Reporting Requirements to NY PSC

- Documentation and verification of project economics
- Evaluation of performance and impact of NGV’s on environment
- Demonstration of the reliability of NGV’s
- Development of “Best Practices”
- Introduction of NGV’s to interested parties
- Measurement of customer acceptance and awareness
- Collection of performance data
NGV Partnership Pilot Program
Current Participants

- Total # of Customers: 3
- Total Annual Incremental Usage: 97,148 Mcf
- Total Incremental Margin: $109,121
- Total Buydown: $356,000