



Case Study: Autogas for Fleet Use

Jeff Stewart
President
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"Let this be our national goal: At the end of this decade, in the year 1980, the United States will not be dependent on any other country for the energy we need to provide our jobs, to heat our homes, and to keep our transportation moving."

Excerpt from Richard Nixon's State of the Union address given Jan. 30, 1974.

"We are now paying out \$25 billion a year for foreign oil. Five years ago we paid out only \$3 billion annually. Five years from now, if we do nothing, who knows how many more billions will be flowing out of the United States. These are not just American dollars, these are American jobs."

Excerpt from Gerald Ford's "Address on Energy Policy" given May 27, 1975

Step 1: “Increase Demand”

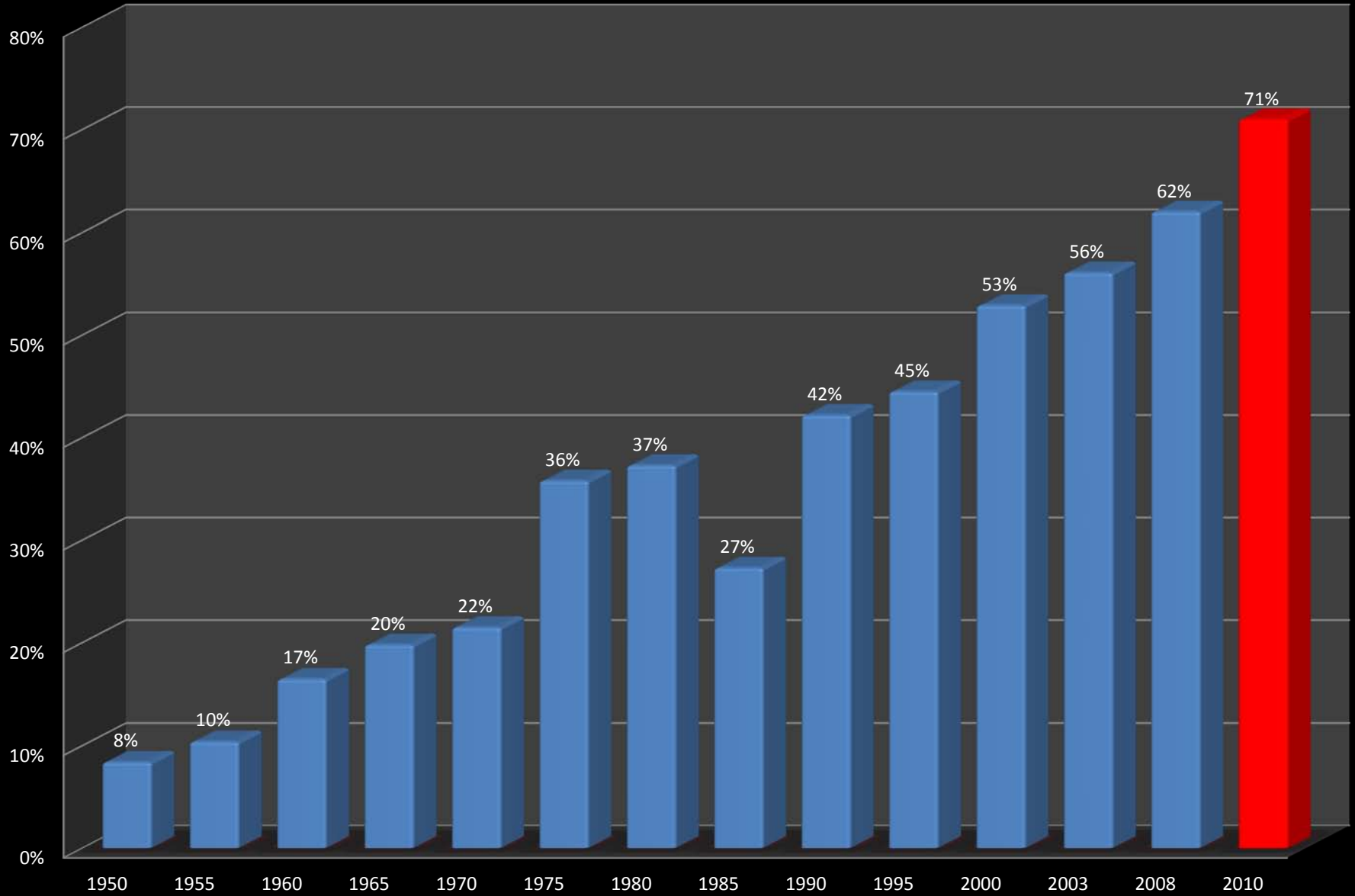
Step 2: “Reduce Supply”

Step 3: “Buy all the rest of what we need from
people that hate us.”

Peter Schwartz GBN



US Oil Consumption, Percent Imported



Four Premises

- **One:** *“Alternative Fuels” to gasoline and diesel fuel.*
- **Two:** *Our addiction to foreign oil places our national security at risk*
- **Three:** *Transportation is a good place to look for alternatives and find remedies.*
- **Four:** *Since the PROBLEM is HERE TODAY we must consider technologies that are HERE TODAY.*

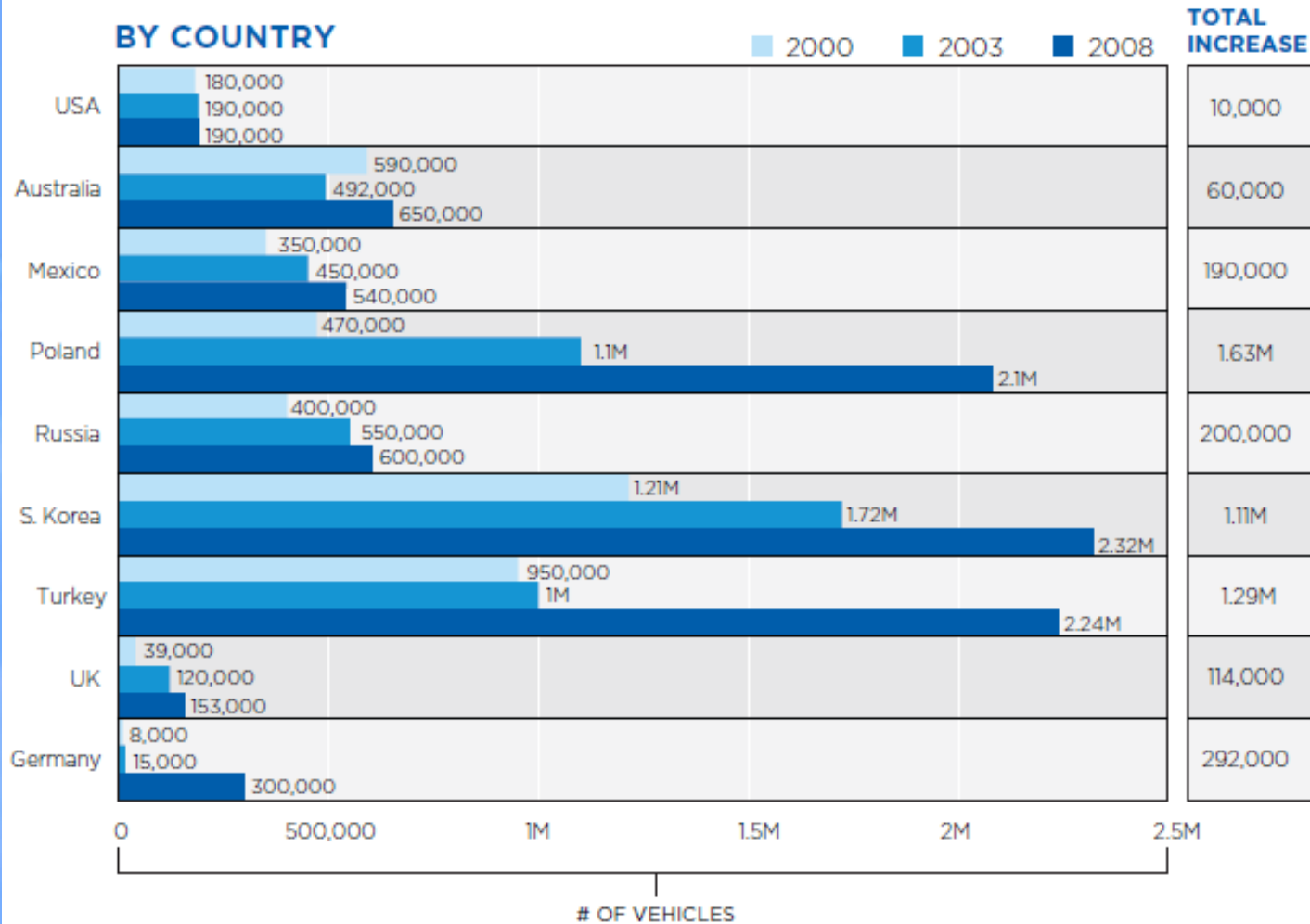
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THERE IS NO “ONE SIZE FITS ALL”
ALTERNATIVE FUEL CHOICE

What is Propane Autogas Doing Around the World?

PROPANE AUTOGAS VEHICLE MARKETS: 2000 to 2008

Propane (AutoGas) has proven to be a cheaper, safer, and cleaner fuel than conventional gasoline and diesel. Numerous countries have been leading the way in advancing propane-powered vehicles, the United States is not among them. According to studies released in 2005¹ and 2009² by the World LP Gas Association (WLPGA), the global propane industry authority, the US AutoGas market has remained almost completely unchanged over the last decade. In contrast, most countries saw an increase in AutoGas vehicles, even those which had little to no AutoGas vehicle market in 2000.



Seven Criteria for Alt Fuel Considerations

1. Emissions Reductions
2. Fuel Cost Savings
3. Cost of Fuel Infrastructure
4. Implications of Operating Pressures
5. Incremental Cost of Vehicle Equipment
6. Vehicle Range
7. Vehicle Payload

AUTOGAS IS:

PROVEN:

- Over 17.5 Million vehicles
- Third most widely used motor fuel

ECONOMICAL:

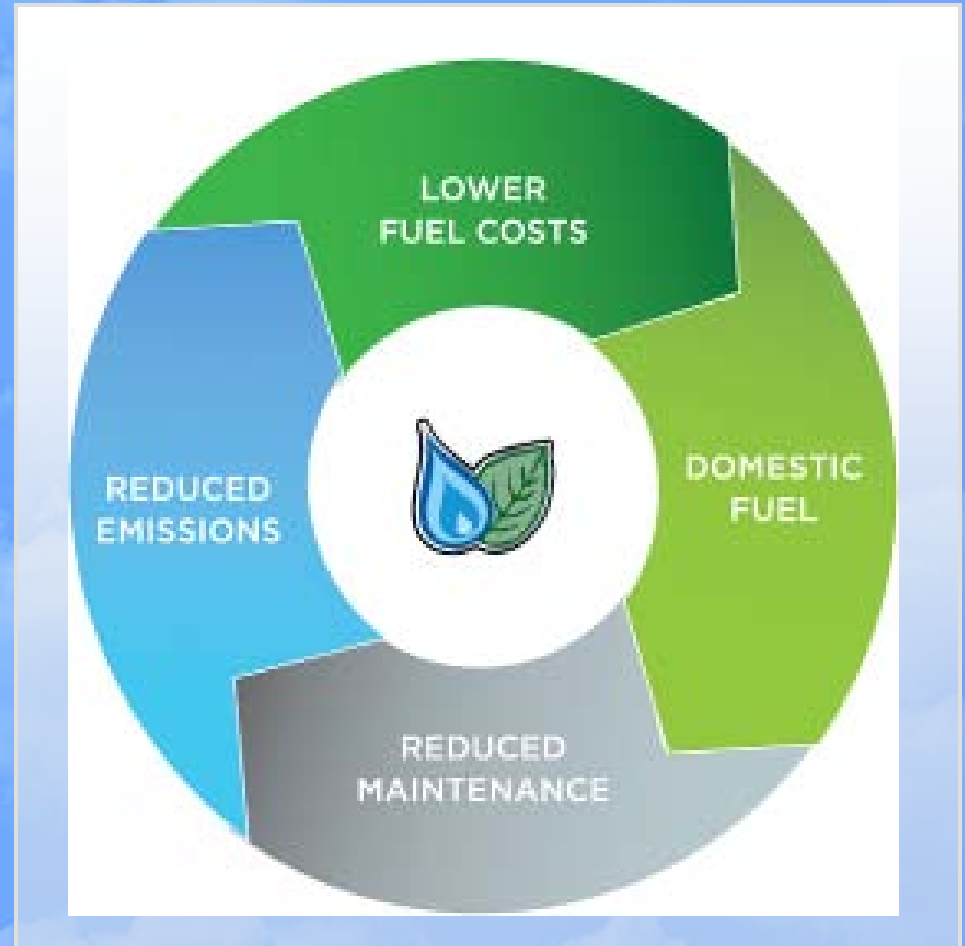
- 35% less expensive than gasoline
- 50-cent per gallon federal tax credit
- Cleaner burning = fewer oil changes

CLEAN:

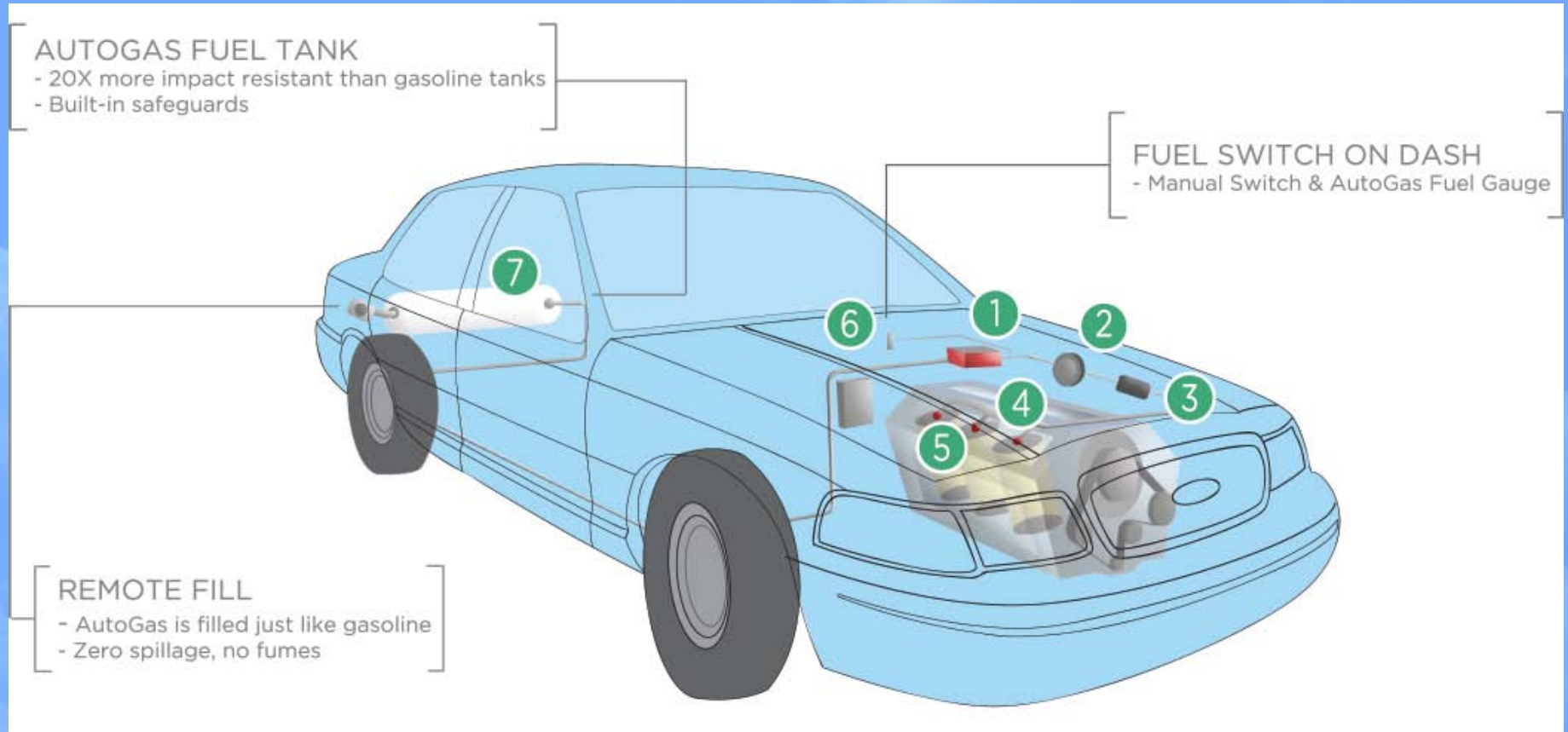
- 16% less carbon dioxide
- 28% less carbon monoxide
- 35.6% less hydrocarbons
- 3.7% less NOx

RELIABLE :

- 95% of Alliance AutoGas' propane vehicle fuel is produced in the U.S.



Vehicle Components



1. Vapor Sequential Injection ECM
2. Reducer to Vapor
3. Filter Unit
4. Tank

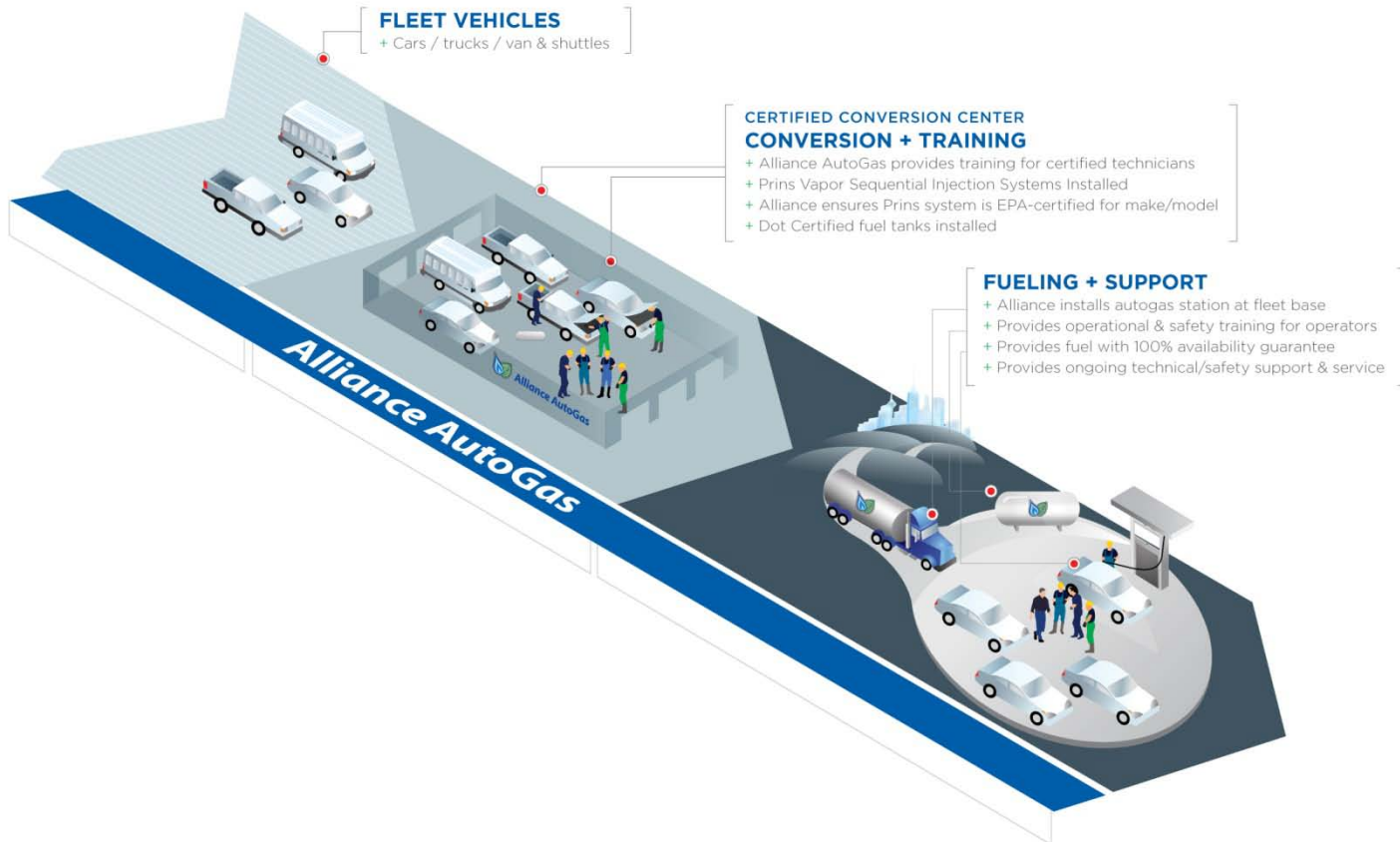
5. Injector Rail
6. New Injectors in Manifold
7. Fuel Selector Switch/Gauge

EPA Certificate Coverage

- Over 200 vehicles of make and model year
- Fleet oriented light duty vehicles
- Ford & Chevrolet trucks, vans & passenger vehicles
- Law enforcement vehicles
- Priced at a level to achieve less than a 2 year payback



Integrated Solution



Integrated Solution



Company Locations

Oregon

- Salem, Oregon
- McMinnville, Oregon
- Eugene, Oregon
- Grants Pass, Oregon
- Medford, Oregon
- Brookings, Oregon

Washington

- Seattle, Washington

California

- Santa Rosa, California
- Mt. Shasta, California
- Redding, California
- Crescent City, California
- Garberville, California
- Clear Lake, California



Question & Answers



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