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IMPCO Technologies, Inc.

1958
50
years of excellence
2008



- 1400+ Employees Globally
- 2008 Revenues \$383M
- Presence in 70 Countries
- 1,000,000 sq-ft of Facilities



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Global Achievements



Mercedes-Benz



- 800,000 Alternative Fuel Vehicles Launched
- 250,000 Tons of CO2 Reduced
- 9,000,000 Barrels of Oil Displaced

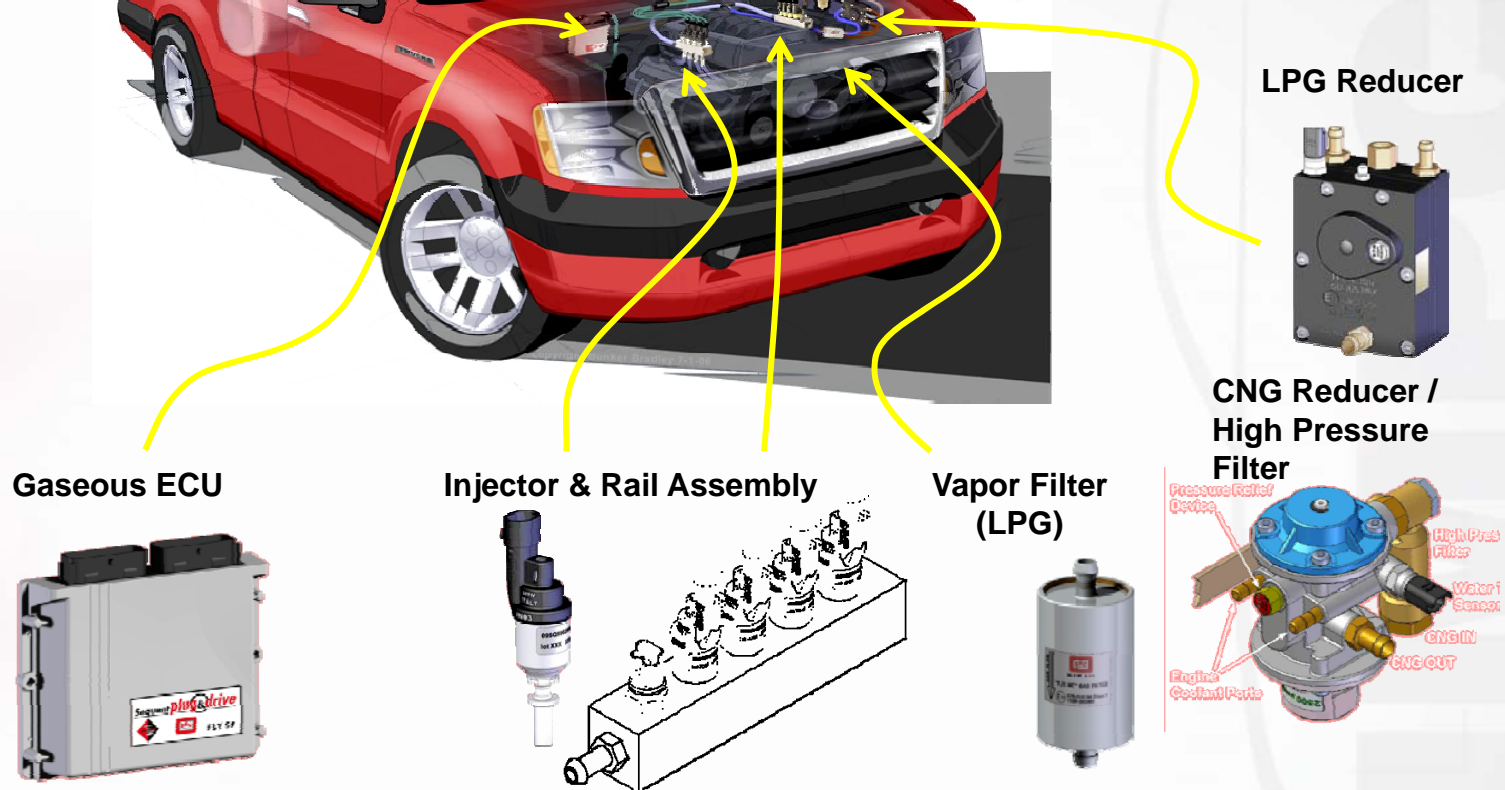
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SEQUENT SYSTEM



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Alternative Fuel Vehicle Market Barriers

- Three Types of Consumer Alt-Fuel Vehicle Purchasers...
 - Buy “green vehicle” despite pocketbook
 - Buy “green vehicle” all things being equal
 - Buy “green vehicle” when financially compelling

❖ Mostly “All Things Being Equal” and Financially Driven.

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Alternative Fuel Vehicle Market Barriers

- Four Types of Commercial Alt-Fuel Vehicle Purchasers...
 - Buy “green vehicle” despite pocketbook
 - Buy “green vehicle” all things being equal
 - Buy “green vehicle” when financially compelling
 - Buy “green vehicle” when mandated...

❖ Nearly all are Financially and Mandate Driven.

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Alternative Fuel Vehicle Market Barriers

- Business and Private Purchase Considerations
 - What if I cannot get fuel?
 - What if I run out of fuel?
 - Who can service my vehicle?
 - Will my vehicle have resale value?
 - Why do I have to buy new vehicles?
 - Why are they so expensive?

A Case for Bi-Fuel Systems

- Bi-Fuel Systems Protect Customers
 - Refuel my vehicle? - Infrastructure.
 - Tow my vehicle? - Out of fuel, system fault.
 - VOR? - Repair or service at convenience
 - Resale value? - OEM system uncompromised
 - Existing vehicle? - Retrofit onto existing vehicles
 - Cost effective? - High volume manufacturing

❖ Operate on Alt-Fuels Because it Makes Sense!

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A Case for Bi-Fuel Systems

❖ Bridge the Gap between Infrastructure and Vehicles

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CARB Certification Considerations

- Federal Grants & Loans offset COSTS
 - Subsidies make certification financially feasible
 - Human and equipment resource costs are high per certificate
 - Grant and loan management overhead adds burden
 - Should “kick start” a company’s ability to certify vehicles, not create a financial dependency

CARB Certification Considerations

- Federal Grants & Loans DO NOT offset TIME
 - Engineering + Certification + Sales = 1 Year!
 - Certification time is up to 6 months!
 - Careful model selection = few makes and models
 - Low sales volume = high system cost

Market Future

- Short Term for Dedicated Vehicles
 - Route constrained fleets
 - Home refueling “Buy **green vehicle** Despite Pocketbook”
 - Mandated fleets

Market Drivers:

- Infrastructure, Mandates, Fuel Prices, Incentives, Environment

❖ Infrastructure Constrained

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Market Future

- Short Term for Bi-Fuel Vehicles
 - Unconstrained route fleets & general consumers
 - “Buy green vehicle Despite Pocketbook”

Market Drivers:

- Infrastructure, Fuel Prices, Environment

❖ Infrastructure Unconstrained

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Market Future

- European Manufacturers Influence
 - Primary European market is Bi-Fuel
 - Drive system prices down
 - Dependent upon fuel pricing for success

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Market Future

- Upfitting Light Duty Vehicles
 - Active life of vehicles is generally 15 years
 - Reducing GHGs *now* requires access to existing vehicles
 - “I want to convert my vehicle!”
 - Systemic verses Unit Certification

❖ Current Rules Prohibit Access to Most Vehicles...

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Costs

- Gasoline –versus – Alt Fuel Vehicles
 - Volume manufacturing advantages
 - System costs in Europe and around the world
 - Volume loss due to certification constraints
 - Tanks

❖ Without volume sales, costs will be high

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Costs

- Federal Tax Credits and Dedicated Vehicles...
 - Trying to make the Chicken and the Egg at the same time!
 - Does not encourage commerce to build infrastructure
 - Approaches consumer confidence from the steepest slope
 - Lessons learned by other countries? Europe?
 - Tax credits should expedite adoption, not create adoption...
- ❖ How do we best use Tax dollars to achieve our goals...

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Costs

- Retrofit Market
 - Can I convert MY car! Sorry, Sir. We don't have a Cert.
 - Volume and competition affect system costs
 - Infrastructure requires many consumers
 - Most of the cars are already on the road!
 - Typical vehicle life is 15 years...

❖ Retrofit is Key to Environmental Change NOW.

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Now What?

- All Things Being Equal, I'll Help the Environment
(but I gotta eat and pay my bills...)
- Use Incentives to help Commerce Build Infrastructure
(incentives can fast track my business, but it my business must stand alone...)
- Expose Existing Vehicles to Alternative Fuels
(how do I convert **MY** vehicle?)

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Thank you...

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