



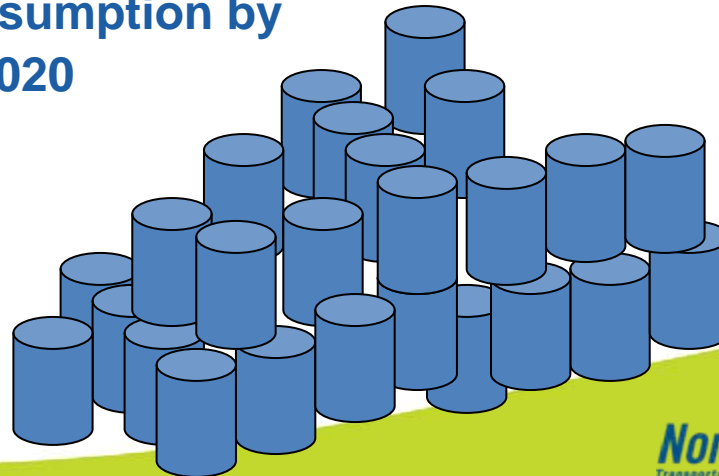
# Program Overview



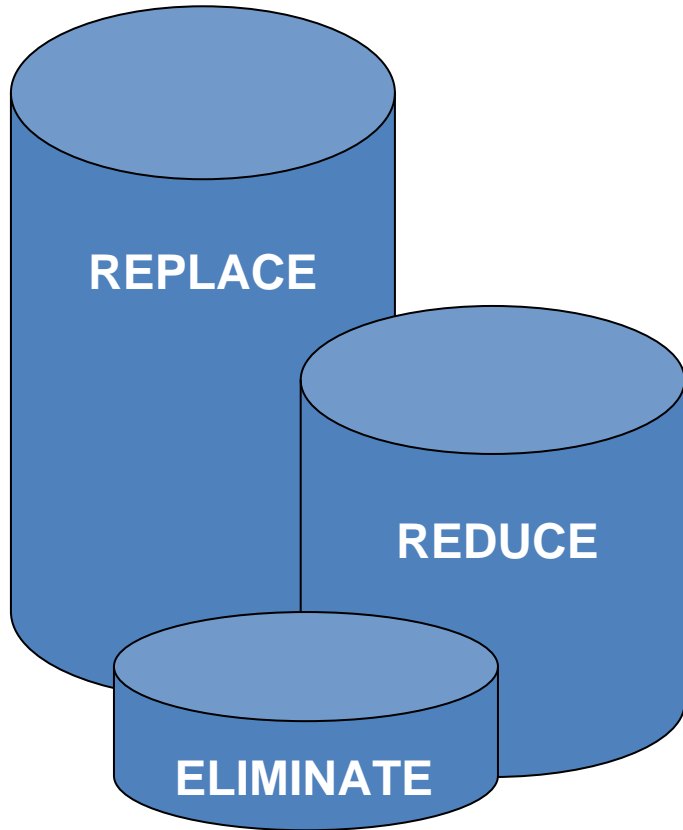
# What is Clean Cities?

- ❖ Established by the U.S. Department of Energy in 1993 - Office of Energy Efficiency and Renewable Energy's Vehicle Technologies Program
- ❖ 90 volunteer coalitions with 6,500 stakeholders across U.S.
- ❖ Displaced more than 1.6 billion gallons of petroleum since inception

**Goal:** Reduce petroleum consumption by 2.5 billion gallons by 2020



## How Does it Work?



**Replace** petroleum used in the transportation sector with alternative fuels and low-level blends of non-petroleum replacement fuels

**Reduce** petroleum use by promoting energy efficiency in vehicles through fuel-efficient, advanced technology vehicles

**Eliminate** petroleum or other fuel use by promoting idle reduction, greater use of mass transit systems and other congestion mitigation approaches such as carpools

# Alternatives

Biodiesel



Electricity



Ethanol



Hydrogen



Natural Gas



Propane



# Why Now?

Greater focus on National Security/Energy Independence



Greater focus on Environment



Greater focus on Economic Development





# Challenges

## Cost & Efficiency

Research &  
Development

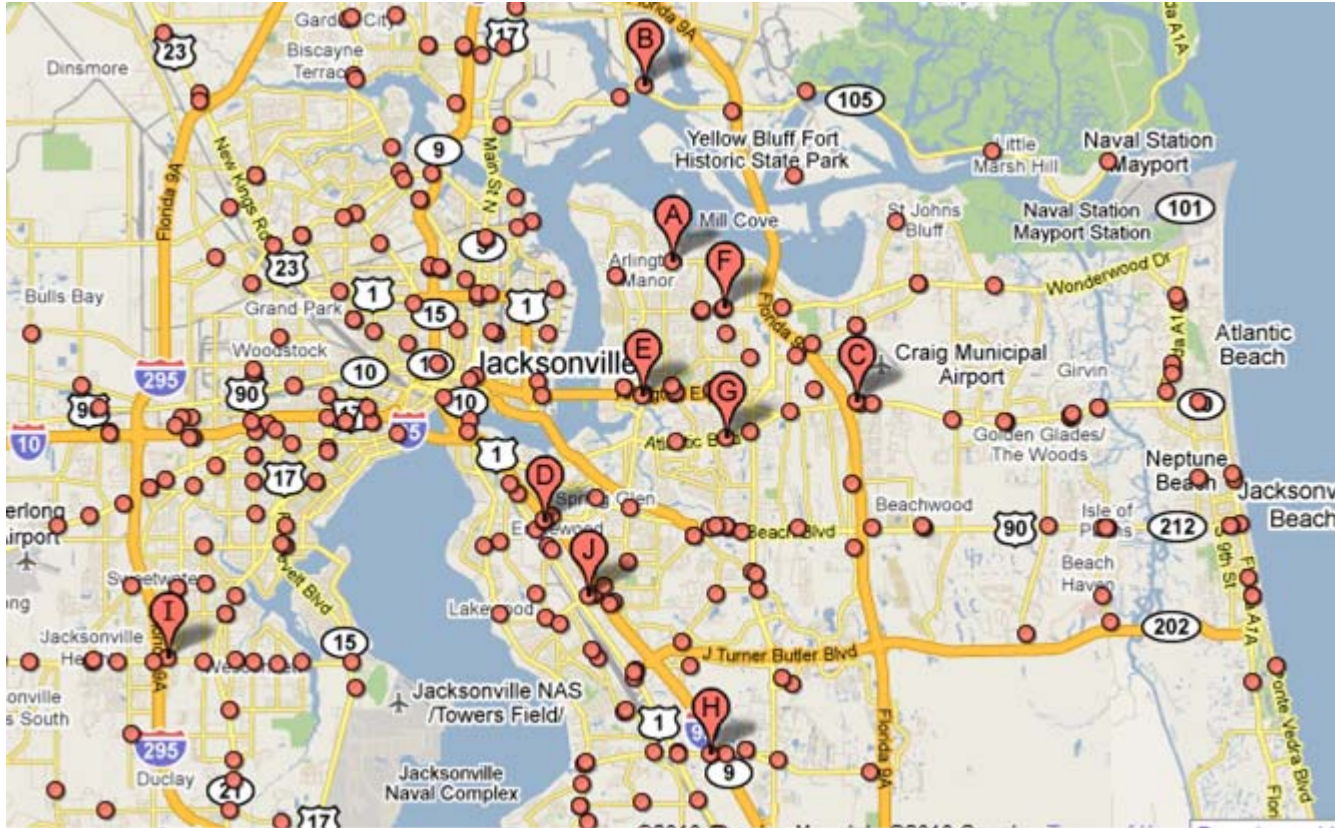
Production

Distribution

## Competing with Petroleum



# Gas Stations



>200



# Incentives

## Government Incentives Are

In 2009, nearly \$300 million in grants were awarded to Clean Cities Coalitions for vehicles, infrastructure and education

Helping To Close the Gap



# Our Coalition

**Business, government and non-profit agencies in Baker, Clay, Duval, Nassau, Putnam and St. Johns counties**

**Learn about benefits, costs and others' experiences**

**Plan and implement alternative fuel programs**

**Seek financial assistance**

**Coalition meetings are open to the public**



# Founding Coalition Members



## Biofuels Division

- ❖ Produce biodiesel from waste vegetable oil collected from gov't. facilities and participating restaurants
- ❖ Chemical process separates oil into biodiesel (95%) and glycerin byproduct (5%)
- ❖ Produce 250 gallons/day with capability of up to 500 gallons/day
- ❖ Mix 20% bio + 80% petro = B20 used by gov't. vehicles with no modifications
- ❖ Displaces over 70,000 gallons of petroleum/year, saves \$37,500+/year in fuel costs and reduces emissions



## Over 50% of Fleet AFVs

- ❖ Plug-in and solar electric
- ❖ Gasoline/electric hybrids
- ❖ Gasoline/compressed natural gas
- ❖ Ethanol-85 flex-fuel
- ❖ Biodiesel
- ❖ Bicycles
- ❖ Aircraft fuel re-used in ground support equipment

Over One Year Off the Grid!



## 54% of Fleet AFVs

- ❖ 8 Neighborhood electric vehicles
- ❖ 43 Ethanol-85 flex-fuel vehicles
- ❖ Biodiesel (B20) in 546 medium and heavy duty vehicles
- ❖ Get E-85 and B20 from COJ
- ❖ Recognized in Top 50 Commercial Green Fleets and Top 100 AFV Fleets in U.S. by *Automotive Fleet* magazine
- ❖ Exceeds U. S. DOE Alternative Fuel Light Duty Vehicle acquisition requirements and received DOE Exceptional Fleet Energy Award



## Public Transit & Auto Fleet

- ❖ New mini-hybrid cooling system in buses saves fuel and reduces emissions
- ❖ All new buses have clean burning diesel engines
- ❖ JTA is requesting funds to start a hybrid bus fleet
- ❖ Eight hybrid electric cars



# Teamwork

St. Johns  
County



JEA



NASJax

JaxPort

JAA



# Teamwork Pays Off

## DeKalb County/Metropolitan Atlanta Alternative Fuel and Advanced Technology Vehicle Project

- ❖ DeKalb County, the City of Atlanta, PS Energy, Coca Cola Enterprises, UPS, Emory University, Georgia Tech and Sustainable Atlanta
- ❖ Convert local landfill gas to CNG, develop five CNG fueling stations construct one B20 station
- ❖ Purchase a total of 191 commercially available light- to heavy-duty alternative-fuel and advanced-technology vehicles
- ❖ Help displace 490,000 gallons of petroleum annually

Total DOE award: \$14,983,167



Let's Work Together  
to become  
Clean and Green!

*Join Us*

[www.northfloridatpo/cleancities](http://www.northfloridatpo/cleancities)



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