

# How MPOs Use CMAQ Funding for Alternative Fuel Vehicle and Infrastructure Projects

U.S. DEPARTMENT OF  
**ENERGY**

Energy Efficiency &  
Renewable Energy



**Clean Cities Webinar**  
**January 18, 2017**

Linda Bluestein, U.S. Department of Energy  
Jim Stack, Genesee Transportation Council  
Jeff Sheffield, North Florida TPO

## Clean Cities Mission

# Energy, Environment, and Economic Security

Driving Sustainability with Clean Fuels and Advanced Vehicles



# National and Local Partnerships



Building Partnerships to Cut Petroleum Use and  
GHG Emissions in Transportation



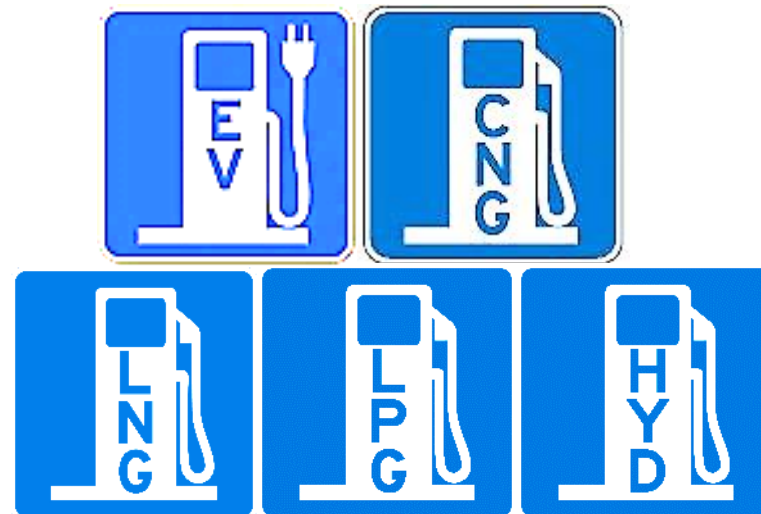
# Clean Cities Coalitions



# Designated Alternative Fuel Corridors

- U.S. DOT designated alternative fuel corridors in November 2016
- Part of the Fixing America's Surface Transportation (FAST) Act
- Federal Highway Administration manages the process for designating new corridors or adding new fuels to existing corridors

[http://www.fhwa.dot.gov/environment/alternative\\_fuel\\_corridors/](http://www.fhwa.dot.gov/environment/alternative_fuel_corridors/)



# Important Web Sites and Resources

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## Clean Cities

[cleancities.energy.gov](http://cleancities.energy.gov)

## Alternative Fuels Data Center

[afdc.energy.gov](http://afdc.energy.gov)

[FuelEconomy.gov](http://FuelEconomy.gov)

## Clean Cities' Technical Response Service

Phone: 800-254-6735

Email: [technicalresponse@icfi.com](mailto:technicalresponse@icfi.com)



U. S. Department of Energy

# Using CMAQ to Support Alternative-Fueled Vehicles

James Stack  
Executive Director

### Agenda

- Background on GTC
- Nonattainment designation
- CMAQ Funding
- Project Selection
- Continued Collaboration
- Continuing Support for Alternative-Fueled Vehicles





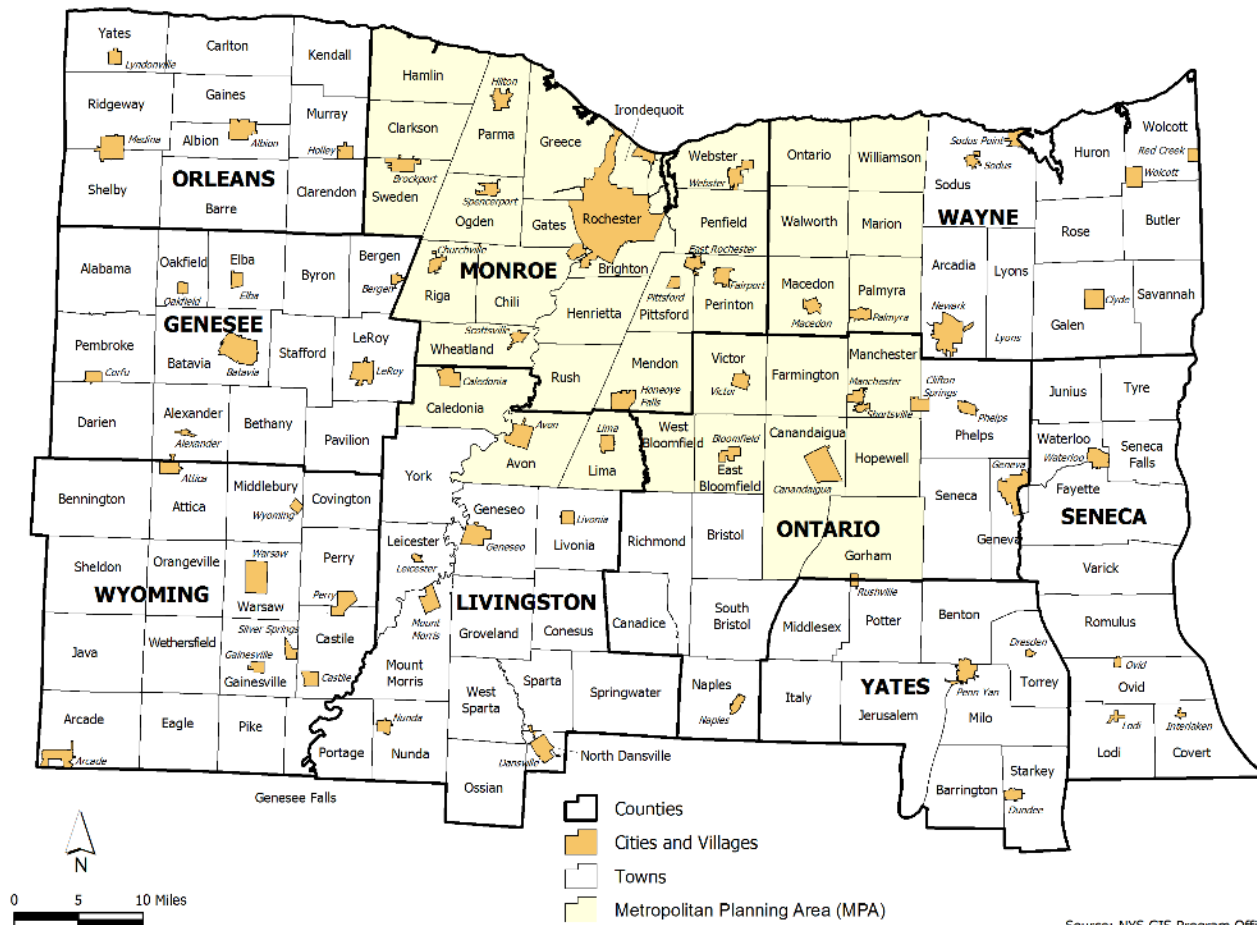
### Genesee Transportation Council

- Metropolitan Planning Organization for the nine-county Genesee-Finger Lakes Region of NY State
  - ❑ Responsible for federally-funded transportation policy, planning, and investment decision making
  - ❑ Three Major Products
    - Long Range Transportation Plan (LRTP)
    - Unified Planning Work Program (UPWP)
    - Transportation Improvement Program (TIP)
- Our Mission
  - ❑ *To maximize the contribution of the transportation system to the social and economic vitality of the region*



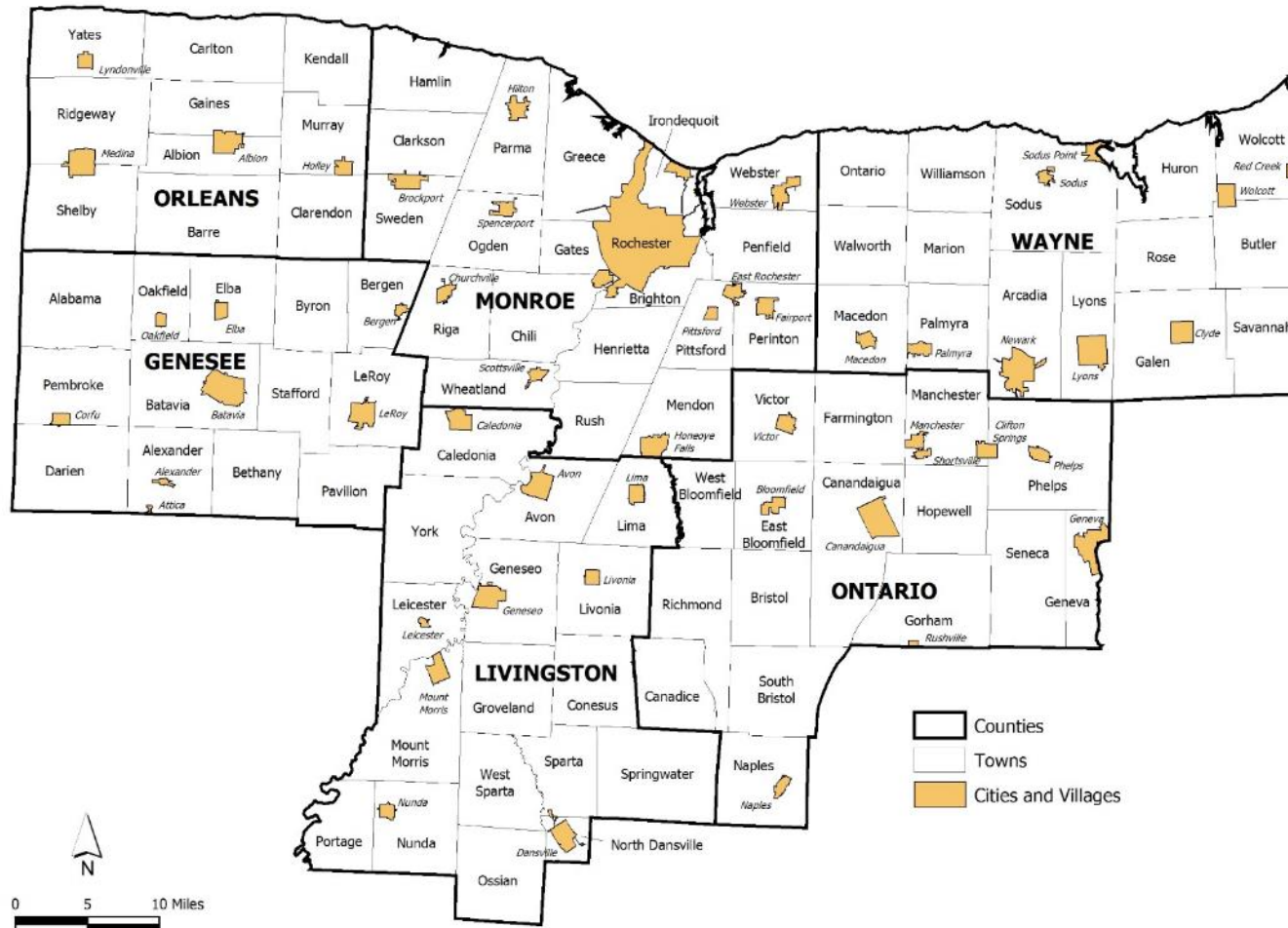
# GENESEE TRANSPORTATION COUNCIL

## Genesee-Finger Lakes Region



# GENESEE TRANSPORTATION COUNCIL

## Rochester Nonattainment Area



## **CMAQ Funding**



- First available for the FFY 2008 to 2012 TIP
- One of many sources of funds, all with specific eligibility criteria
- Average of \$12.5 million per year
- Included “backlog” of funding to nonattainment designation



## **Project Selection**

- Genesee Region Clean Communities submitted an application to encourage the integration of alternative-fueled vehicles into public and private fleets
- GRCC was awarded \$2 million over 4 years
- CMAQ funds would cover 75% of incremental costs to purchase new alternative fueled vehicle or 75% of the cost to convert an existing vehicle
- Fuel was not limited to specific type



## **Continued Collaboration**

- CMAQ funding in general and working with a non-municipal sponsor were new endeavors that needed to be figured out
- GRCC needed a municipal sponsor for funding to pass through and eventually partnered with the New York State Energy Research and Development Authority (NYSERDA)
- It took time to get various agreement in place so the project was delayed

## **Continued Collaboration**

- TEA-21 had many extensions that did not grow the funding programs as expected
- GRCC award was cut to \$1.7 million over 2 funding rounds
- With a change in Air Quality standards, this region is no longer in nonattainment so there is no set allocation of CMAQ funds

## **Continued Collaboration**

- New York State DOT required emissions benefit analyses before funding could be obligated
- Tools did not exist to conduct these analyses in our part of the state so we used spreadsheets and online tools to develop before and after analyses
- GRCC worked with GTC on various inputs like EPA Vehicle Class, Speeds, Daily VMT, # of Days of Operation per year
- Emissions analysis was based on assumptions of the fleet mix that would pursue CMAQ funds
- Once funding was in place, GTC staff worked with GRCC to develop a Request for Proposals to use the CMAQ funds



## **Continued Collaboration**

- GRCC has membership from public and private fleet operators
- GRCC issued the RFP to its members and other interested fleet owners
- In 2008 GRCC selected projects to move forward
- About 65 vehicles among 6 fleet owners (2 public, 4 private)
- GRCC worked with fleet owners to move on vehicle acquisition
- In 2013, GTC worked to revise the emissions analysis based on the actual projects selected

## **Continued Collaboration**

- During this time, it was determined that Buy America requirements for steel content should apply to vehicles
- GRCC worked with the fleet owners, vehicle dealers, and manufacturers to collect the documentation needed to satisfy the Buy America provisions
- Simultaneously, GTC worked with NYSDOT to pursue Buy America waivers that were eventually granted
- New vehicles still needed to be assembled and conversions needed to take place in the USA
- GRCC collected necessary documentation regarding assembly

## **Continued Collaboration**

- There were many lessons learned in Round 1 that were used to establish Round 2
- GRCC worked with GTC to incorporate the data needs into the new RFP to facilitate subsequent air quality analyses
- In spring of 2016, GRCC was able to issue an RFP for Round 2
- Projects selected in fall 2016
- About 90 vehicles among 13 fleet owners (4 public, 5 private, 3 school district, 1 college)

## **Continuing Support for Alternative-Fueled Vehicles**

- In June 2016, GTC adopted its current Long Range Transportation Plan; recommendations include:
  - ❑ 61. Encourage and support the expanded use of more energy efficient, alternative fuel vehicles (e.g., electric and hybrid) and retrofitted vehicles in public and private fleets
- Our partnership with GRCC is specifically mentioned in the discussion of this recommendation
- In August 2016, Governor Cuomo announced the availability of CMAQ funds for upstate New York
- GRCC has applied for CMAQ funds to continue this program and we hope to learn if they were successful in the near future



## **GENESEE TRANSPORTATION COUNCIL**



## **GENESEE TRANSPORTATION COUNCIL**

50 West Main Street-Suite 8112

Rochester, NY 14614

[www.gtcmpo.org](http://www.gtcmpo.org)

[upwp@gtcmpo.org](mailto:upwp@gtcmpo.org)

[!\[\]\(003082e50e3009141f59bd5df831749f\_img.jpg\)@gtcmpo](https://twitter.com/gtcmpo)

The Metropolitan Planning Organization for the Genesee-Finger Lakes Region

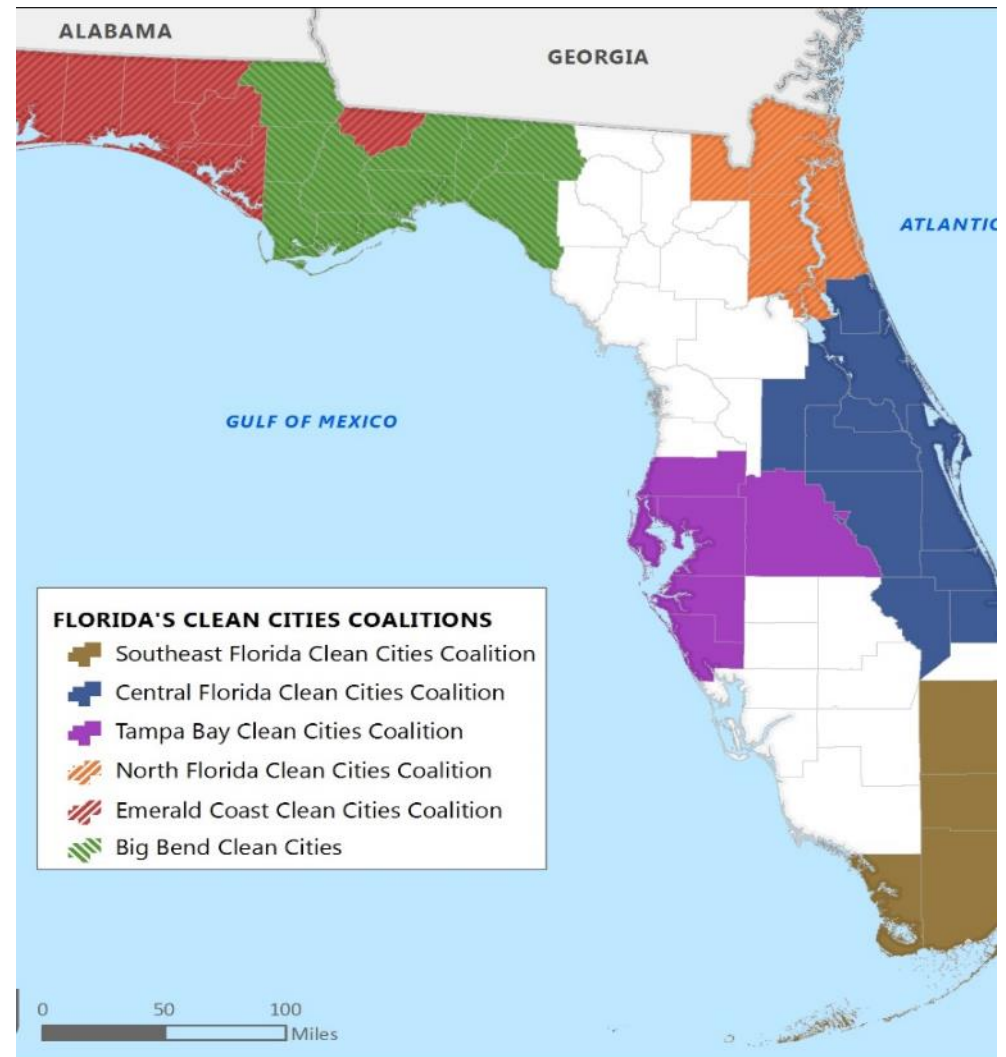
# NORTH FLORIDA TPO SUPPORTS AFVS USING CMAQ FUNDS



# NORTH FLORIDA TPO BACKGROUND



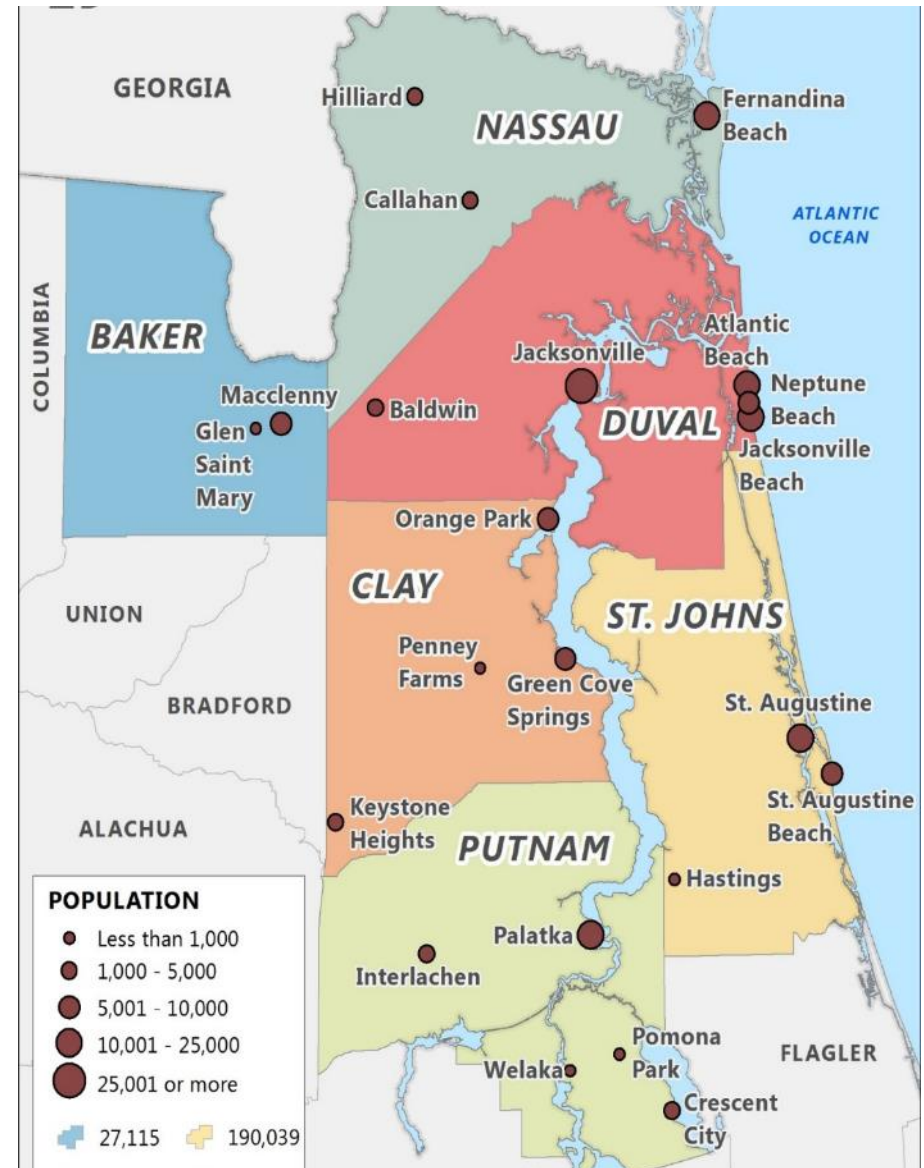
- » Service Area
  - 4 counties
  - 18 municipalities
  - 1.4 million people
  - 3,000 square miles





# COALITION BACKGROUND

- » Founded in 2009
- » Designated April 12, 2016
- » Service Area
  - 6 counties
  - 22 municipalities
  - 1.5 million people
  - 4,000 square miles
- » Hosted by TPO
  - CMAQ Funded
  - Invested over \$5 million in alt. fuel vehicles and infrastructure projects







# ***WHY PROMOTING AFVS IS IMPORTANT***

- » It's part of an emerging economic development strategy to power North Florida's logistics and transportation industries with clean fuels.
- » The TPO is the region's recognized resource for advancing alternative fuels, vehicles and infrastructure.
- » Enhances the TPO's visibility, credibility and sustainability in the energy arena.



# ***BALANCING FDOT INTEREST WHILE PROMOTING AFVS***

- » Strong collaborative partnership with FDOT District II.
- » FDOT is very supportive of TPO initiatives.
- » FDOT is open to innovative TPO projects.



# ***PROCESS FOR PROGRAMMING CMAQ FUNDS FOR AFV PROJECTS***

- » North Florida receives approximately \$1.4 million in CMAQ funds annually.
- » The North Florida Alternative Fuels, Vehicles & Infrastructure Master Plan identifies fundable projects.
- » Counties within the TPO can submit eligible AFV projects.
- » The TPO Board approves the AFV projects.



# LEVERAGING FUNDS

- » TPO dollars enhance stakeholder investments.
- » TPO dollars provide publicly accessible infrastructure that promotes greater availability.

# CURRENT PROJECTS



## ST. JOHNS COUNTY FLEET CONVERSION

With \$732,000 in North Florida TPO support, St. Johns County procured 108 CNG light and medium duty bi-fuel vehicles.

The County entered into a P3 with NoPetro to develop and operate a CNG fueling facility accessible to the public.

The project is in operation.





## CURRENT PROJECTS



### ***JTA PUBLIC ACCESS CNG STATION***

The North Florida TPO allocated \$2.75 million to support JTA's transition to a CNG-fueled Bus Rapid Transit system.

The funding enabled construction of a public-access CNG fueling station developed via a P3. JTA will procure 100 CNG buses over five years, supported by private fueling infrastructure.



# CURRENT PROJECTS



## CITY OF JACKSONVILLE SANITATION VEHICLE TRANSITION

The North Florida TPO allocated \$315,000 to the City of Jacksonville to fund the incremental cost of seven CNG sanitation trucks.

The trucks fuel at JTA's public-access station.





## CURRENT PROJECTS



### FLORIDA EAST COAST RAILWAY FREIGHT LOCOMOTIVE CONVERSION

FEC is piloting four LNG-diesel hybrid locomotives and two tender cars along a 116 mile corridor south of Jacksonville.

\$375,000 from the North Florida TPO purchased one of four retrofit kits for \$375,000.

The project is expected to displace 80% of current diesel use.



# CURRENT PROJECTS

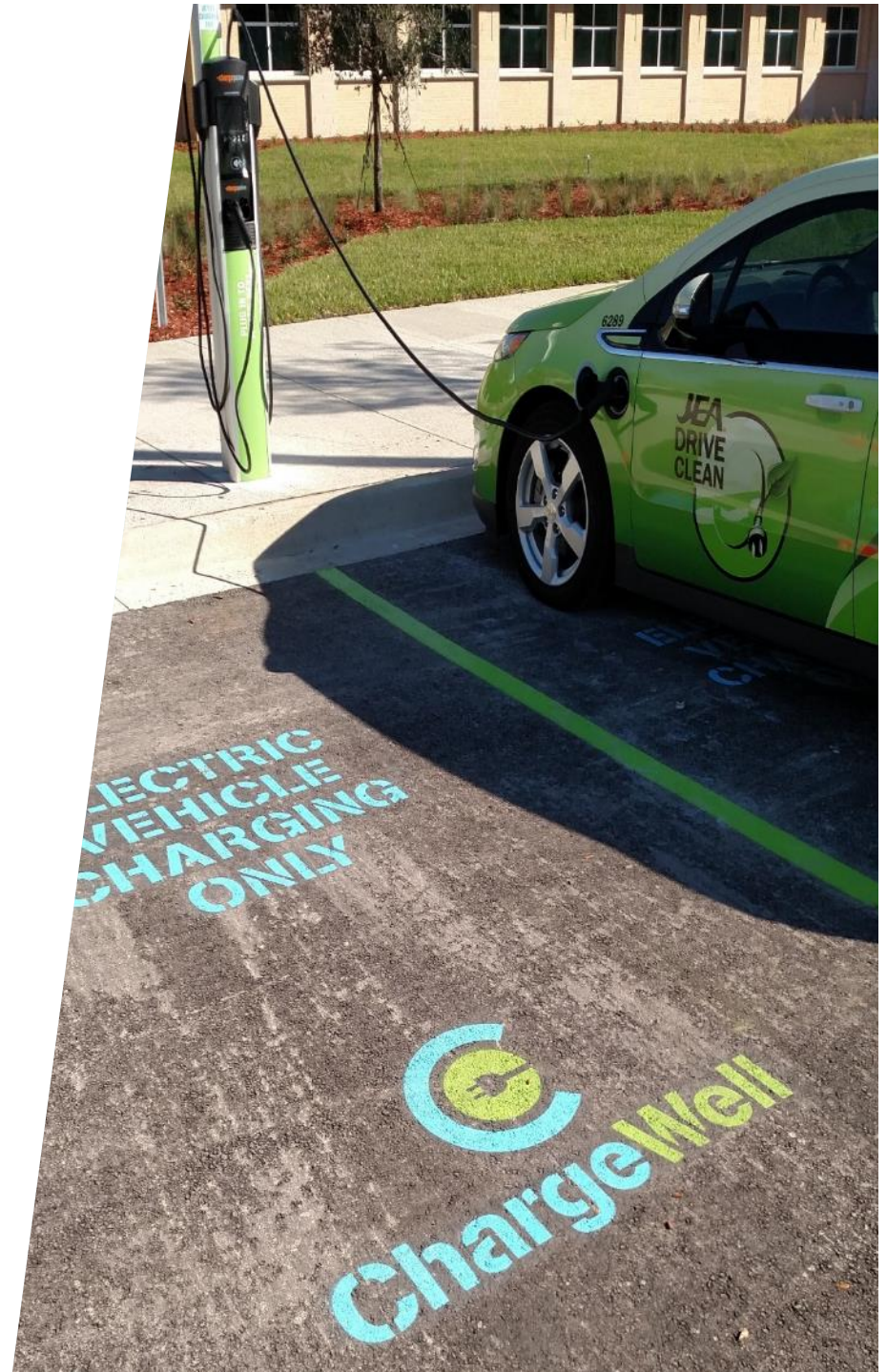


## ELECTRIC VEHICLE CHARGING NETWORK

The North Florida TPO has partnered with JEA to invest \$300,000 in a regional EV charging network known as **ChargeWell**.



25 stations installed in Duval and Clay Counties; ties into JEA's Drive Clean program, which offers incentives to purchase EVs.



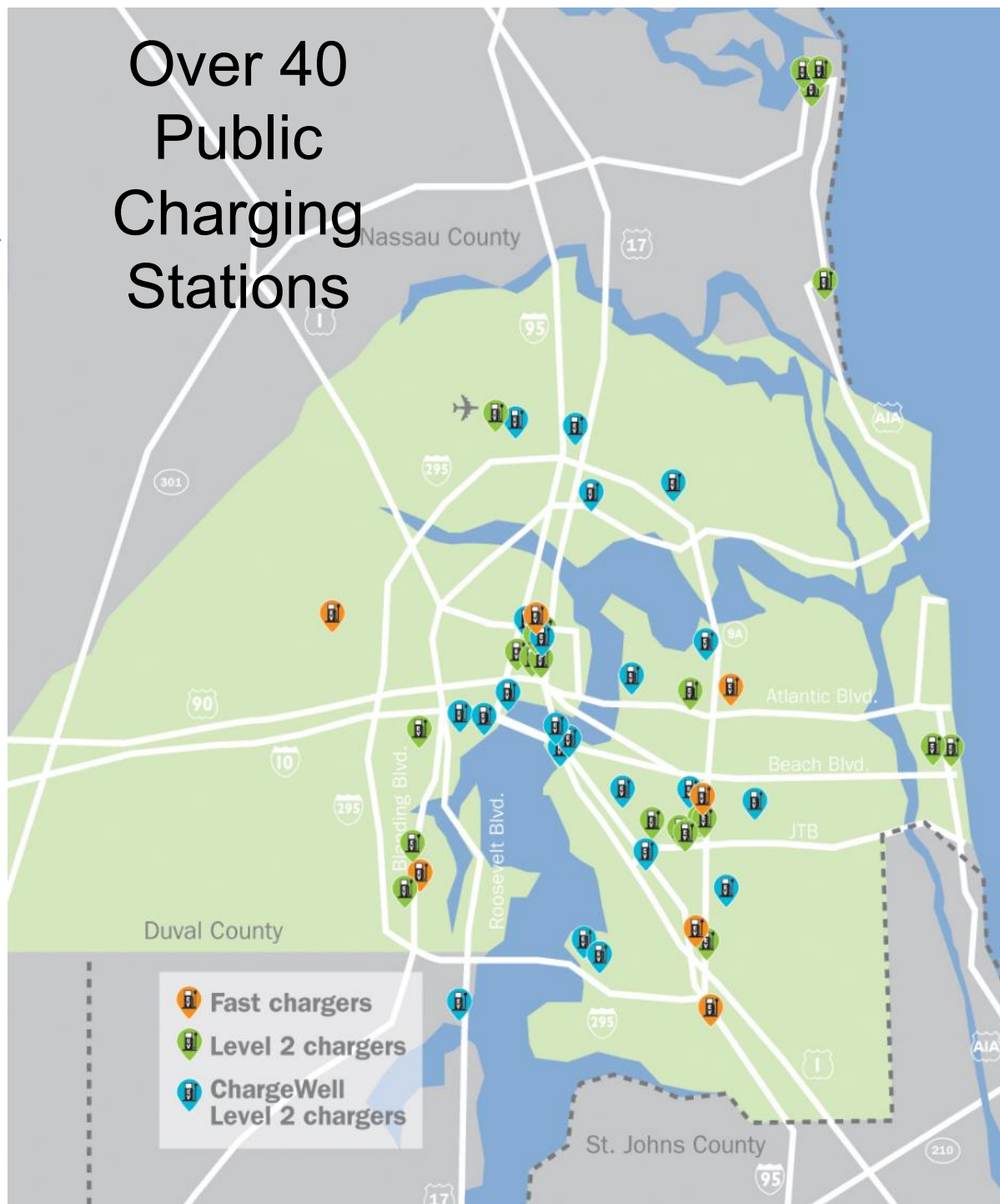
# ***FUTURE PROJECTS***

## ***EXPAND ELECTRIC VEHICLE CHARGING NETWORK***

The North Florida TPO has programmed \$450,000 to regionally expand **ChargeWell**.



Over 40  
Public  
Charging  
Stations







The coalition's efforts are part of an emerging economic development strategy to power North Florida's logistics and transportation industries with clean fuels

## ***CLEAN FUELS & LOGISTICS***



# RETURN ON INVESTMENT

- » **\$30M** in leveraged stakeholder investment
- » **\$115M** in avoided fuel expenditures\*
- » **95M gallons** of displaced petroleum fuel\*
- » **800M kg** of avoided GHG emissions valued at \$9M\*<sup>#</sup>
- » **\$42M net benefit to stakeholders\***
- » **ROI 165%\***

*\*Calculated over a 20 year common project life*

*<sup>#</sup>Not included in net benefits or ROI estimates*



# SUMMARY

- » US DOE Designation confirms the Coalition's position as a regional center of excellence.
- » The Coalition has a strong strategic plan that maps targeted investments in market transformation.
- » As a public agency the TPO is connecting to the business community that affects their bottom line.
- » Prospective businesses are joining a region that is alternative fuel ready.



# QUESTIONS

