2024 ALTERNATIVE FUELS & VEHICLES EXPO

NORTH FLORIDA CLEAN FUELS COALITION

WELCOME

Jeff Sheffield

Executive Director
North Florida TPO

2024 ALTERNATIVE FUELS & VEHICLES EXPO

Dr. Sunil Joshi

Chief Health Officer
City of Jacksonville

2024 ALTERNATIVE FUELS & VEHICLES EXPO

THE INTERSECTION OF TRANSPORTATION AND HEALTH

A NEW DAY

Sunil Joshi, MD
City of Jacksonville
Chief Health Officer
JEPB Member

TRANSPORTATION RELATED AIR POLLUTION (TRAP)

Air pollution:

- An environmental health hazard
- It is a major threat to global health and prosperity
- Responsible for over 6.5 million deaths globally each year

The Lancet; 6, 6 E535-547 June 2022

TRANSPORTATION RELATED AIR POLLUTION

What is Transportation Related Air Pollution (TRAP)?

- a mixture of gasses and particles,
- has most of the elements of human-made air pollution:
  - ground-level ozone,
  - carbon monoxide
  - nitrogen oxides,
  - sulfur oxides,
  - volatile organic compounds, and
  - fine particulate matter (PM10 and PM2.5).

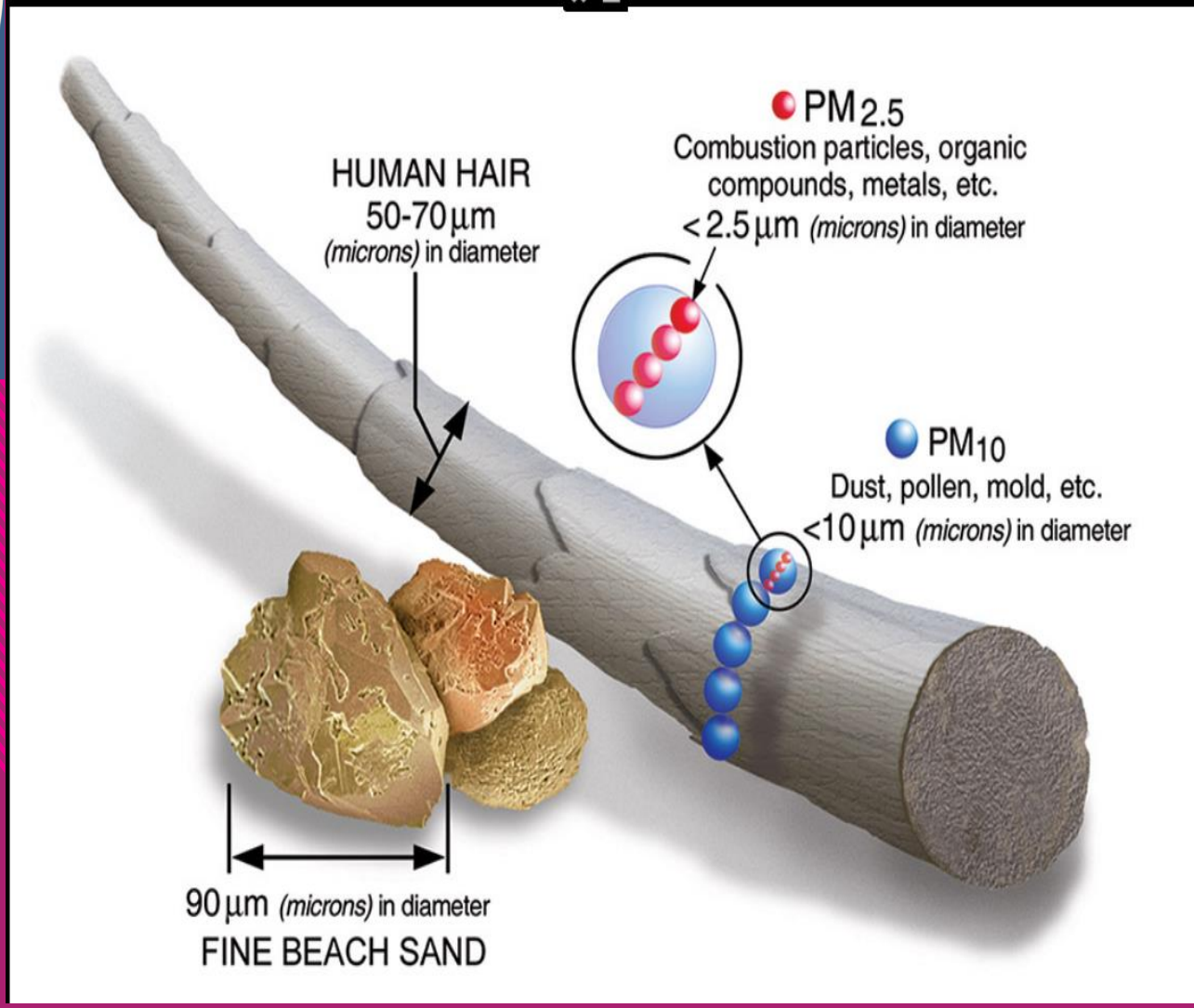
TRANSPORTATION RELATED AIR POLLUTION

Ozone, an atmospheric gas; created when pollutants emitted by cars, power plants, industrial boilers, refineries, and other sources chemically react in the presence of sunlight.

Noxious gases, such as carbon dioxide, carbon monoxide, nitrogen oxides (NOx), and sulfur oxides (SOx), are components of motor vehicle emissions

Volatile organic compounds (VOC) vaporize at or near room temperature—hence, volatile. Organic because they contain carbon. Gasoline and natural gas are major sources of VOCs, which are released during combustion.

Particulate matter (PM) chemicals such as sulfates, nitrates, carbon, or mineral dusts. Vehicle emissions from fossil fuel combustion, cigarette smoke, and wildfires, all contain PM. A subset of PM, fine particulate matter (PM 2.5) is 30 times thinner than a human hair. It can be inhaled deeply into lung tissue and contribute to serious health problems. PM 2.5 accounts for most health effects due to air pollution in the U.S.


PM2.5
Combustion particles, organic compounds, metals, etc.
<2.5 µm (microns) in diameter
HUMAN HAIR
50-70 µm
(microns) in diameter
PM10
Dust, pollen, mold, etc.
<10 µm (microns) in diameter
90 µm (microns) in diameter
FINE BEACH SAND

HEALTH EFFECTS OF TRAP?

Cancer:

- A large study of more than 57,000 women found living near major roadways may increase the risk of breast cancer (Int. Cardio 2020 Feb 1;146(3):699-711)
- Chemicals in gasoline increase risk for Non-Hodgkin Lymphoma (Cancer Epidemiol Biomarkers 2007 Mar;16(3):385-91)

Heart Disease:

- Fine particulate matter can **impair blood vessel function** and **speed up calcification in arteries**
- Links between short-term daily exposure by post-menopausal women to nitrogen oxides and **increased risk of hemorrhagic stroke.**
- Exposure to TRAP can result in **lowered levels of HDL,** sometimes called good cholesterol, increasing their risk for cardiovascular disease.
- TRAP increases a pregnant woman's risk for dangerous changes in blood pressure, known as **hypertensive disorders**, which are a leading cause of **pre-term birth, low birth weight, and maternal and fetal illness and death.**

HEALTH EFFECTS OF TRAP?

Respiratory illnesses:

- Research published in 2023 tied two air pollutants, ozone and PM2.5, to **asthma-related changes** in children's airways;
- Increases in asthma prevalence and severity are linked to urbanization and outdoor PM 2.5. Children living in low-income urban areas tend to have more asthma cases than others.
- PM and nitrogen oxide are linked to **chronic bronchitis**

Pregnancy:

- Prenatal exposure to particulate matter was associated with **low birth weight.**
- Women exposed to high levels of fine particulate matter during pregnancy, particularly in the third trimester, may have **up to twice the risk of having a child with autism.**
- Second and third trimester exposure to PM 2.5 might increase the chance of those children having **high blood pressure in early life**

Environ Health Persp 2013 Mar;121(3):267-373

AMBIENT AIR MONITORING NATIONAL LEVEL

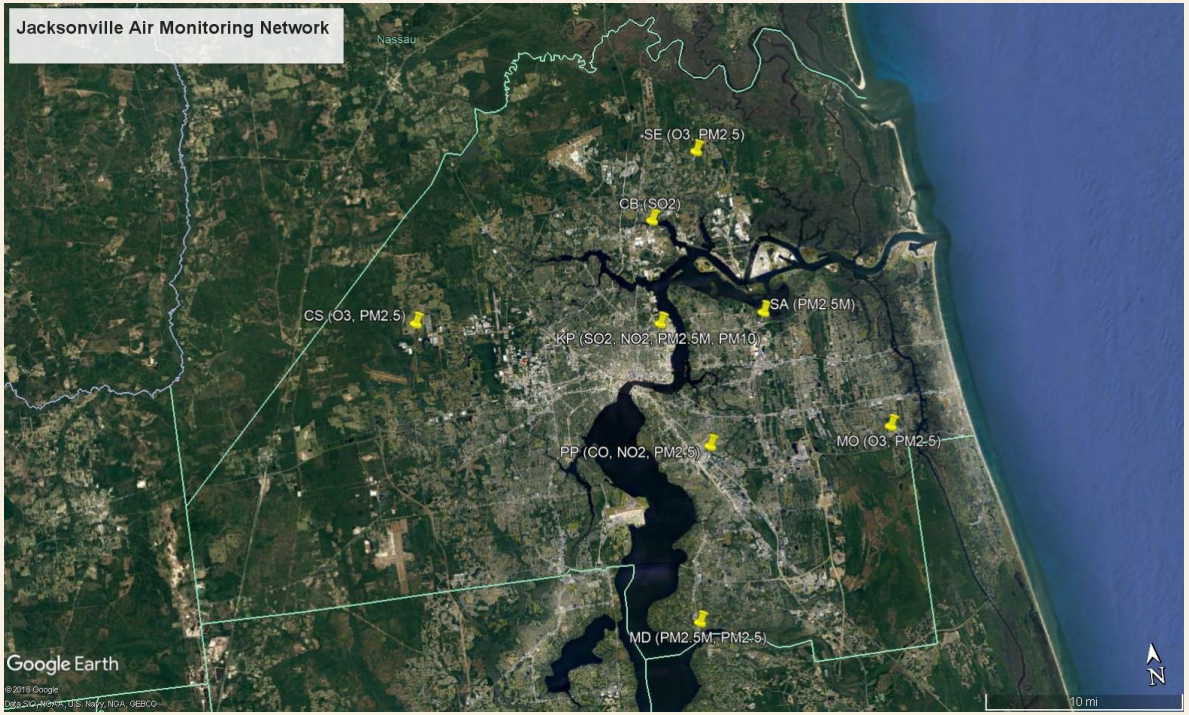
The Environmental Protection Agency (EPA) tracks emissions data on the following transportation-related criteria pollutants:

- -Carbon monoxide (CO)
- -Nitrogen oxides (NOx)
- -PM 10 (10 micrometers or less in diameter)
- -PM 2.5 (2.5 micrometers or less in diameter)
- -Sulfur dioxide (SO_2)
- -Volatile organic compounds (VOC)
- -Ground level ozone (O_3)

AMBIENT AIR MONITORING JACKSONVILLE

The COJ Environmental Quality Division operates eight ambient air monitoring sites in Duval County, monitoring for ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter (PM_{10} and $PM_{2.5}$), and sulfur dioxide (SO_2). This data is uploaded daily to the EPA.

JACKSONVILLE AMBIENT AIR MONITORING NETWORK



AMBIENT AIR MONITORING
NATIONAL LEVEL

The on-road emissions data covers

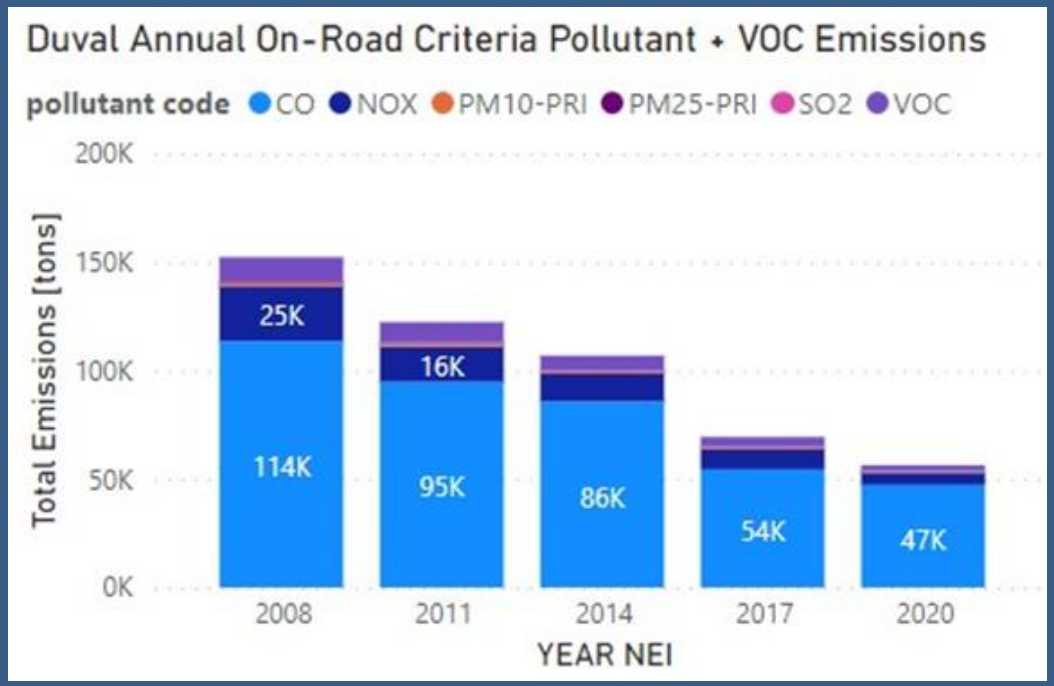
- 2008 to 2020

-Based on National Emissions Inventory (NEI) data

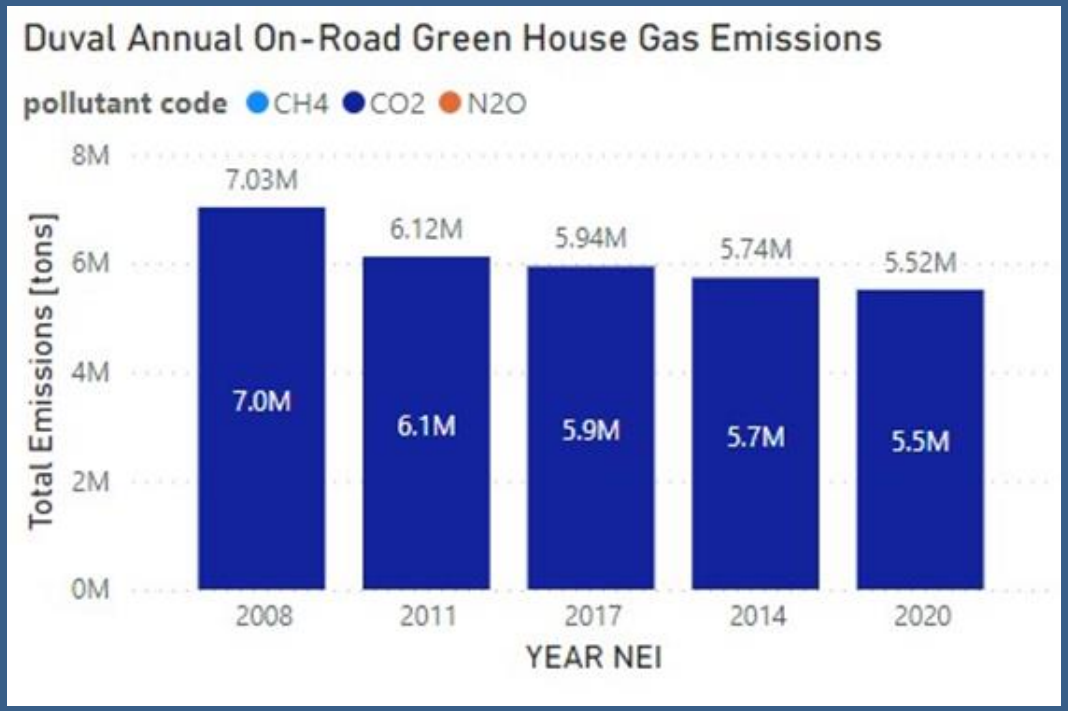
-updated every three years.

ON ROAD TRANSPORTATION RELATED EMISSIONS IN JACKSONVILLE

AS A GROUP, ON-ROAD TRANSPORTATION-RELATED CRITERIA POLLUTANTS PLUS VOC EMISSIONS HAVE TRENDED DOWNWARD FROM 2008 TO 2020



AS A GROUP, GREENHOUSE GAS EMISSIONS HAVE TRENDED DOWNWARD FROM 2008 TO 2020, BUT NOT TO THE EXTENT THAT CRITERIA POLLUTANTS HAVE

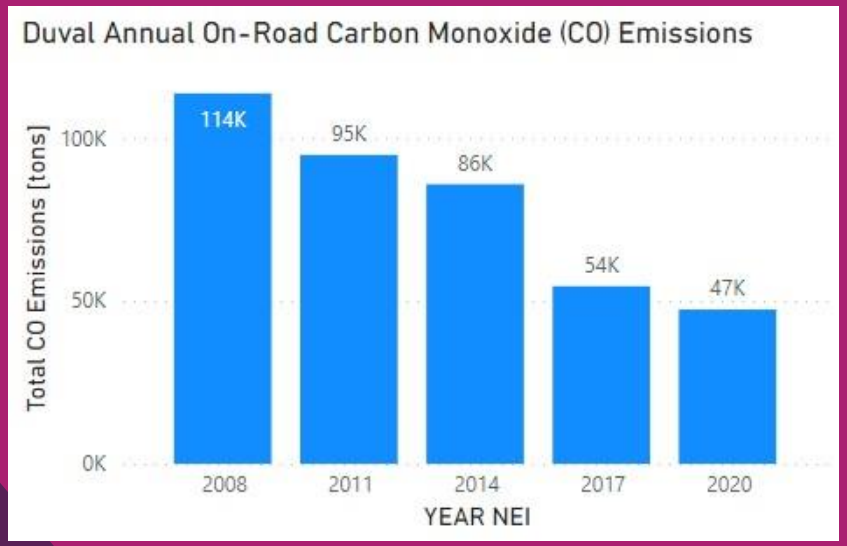


CRITERIA POLLUTANTS

CARBON MONOXIDE

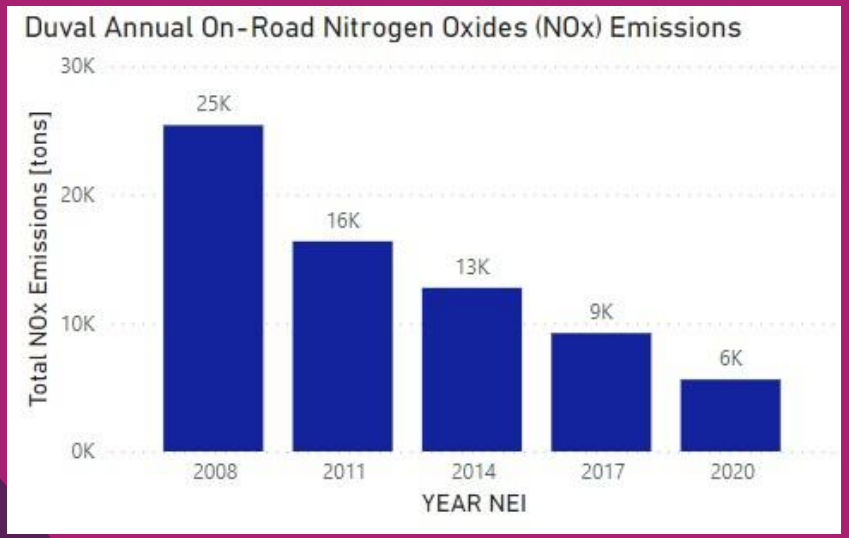
Carbon monoxide is produced by the incomplete combustion of fuel, primarily in vehicles (on and off-road).

Carbon monoxide makes up the bulk of the on-road criteria pollutant emissions.



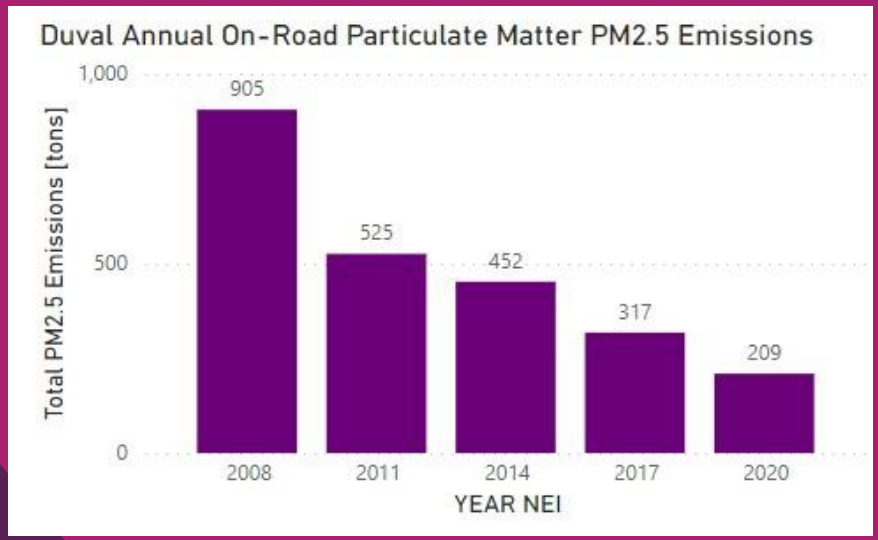
NITROGEN DIOXIDE (NO2)

Nitrogen dioxide is a surrogate for nitrogen oxides, which are primarily produced by the burning of fuel (on-road vehicles, off-road equipment, and power plants). Nitrogen oxides irritate the airways of humans, react with water, oxygen, and other chemicals to produce acid rain and haze, and react with volatile organic compounds (VOC) and ultraviolet sunlight to produce ozone.



FINE PARTICULATE MATTER (PM2.5)

Fine particulate matter is inhalable particles with a diameter of 2.5 micrometers (µm) or less. Examples include smoke, organic compounds, and metals, and are also exhausted as combustion byproducts from vehicles. Fine particulate matter pose the greatest health effects and are the primary cause of reduced visibility or haze in some parts.



VOLATILE ORGANIC COMPOUNDS (VOC)

Volatile organic compounds are organic compounds that, when volatilized, can participate in chemical reactions with ultraviolet light from the sun and nitrogen oxides to form ground level ozone, one of the criteria pollutants. Ozone is particularly harmful to people with asthma.

THANK YOU

SUNIL JOSHI, MD FAAAI

SJOSHI@COJ.NET
904-255-5013

Ben Moore

Sustainability Leader

RS&H

2024 ALTERNATIVE FUELS & VEHICLES EXPO

CLEAN FUELS MASTER PLAN

NORTH FLORIDA CLEAN FUELS

Agenda

- Purpose
- 2014 Alternative Fuels Master Plan Review
- Baseline Conditions
- 2024 Clean Fuels Master Plan
- Pathway Approach
- Next Steps & Questions

Purpose: Why Update the Plan?

Federal Incentives & Support

- Unprecedented Federal funding-BIL, IRA
- J40 requires 40% of fed program funding for disadvantaged communities with investments focused on clean energy and transit

Changes to TPO & North Florida

- Updated Plan will reflect mission and vision of new Coalition leadership, board members, and major stakeholder additions
- North Florida AF infrastructure has developed, expanding feasibility of alternative fuel fleets

Tech Advancements & Market Dynamics

- Evolution in alternative fuel technologies, enhancing their cost competitiveness and overall efficiency since 2014
- Consumer preferences, industry trends and global energy demands are shifting increasingly towards alternative fuel adoption

2014 AFVI Master Plan

Increase documented AFVs to >1,500

- St. Johns County bi-fuel fleet
- JEA Drive Clean

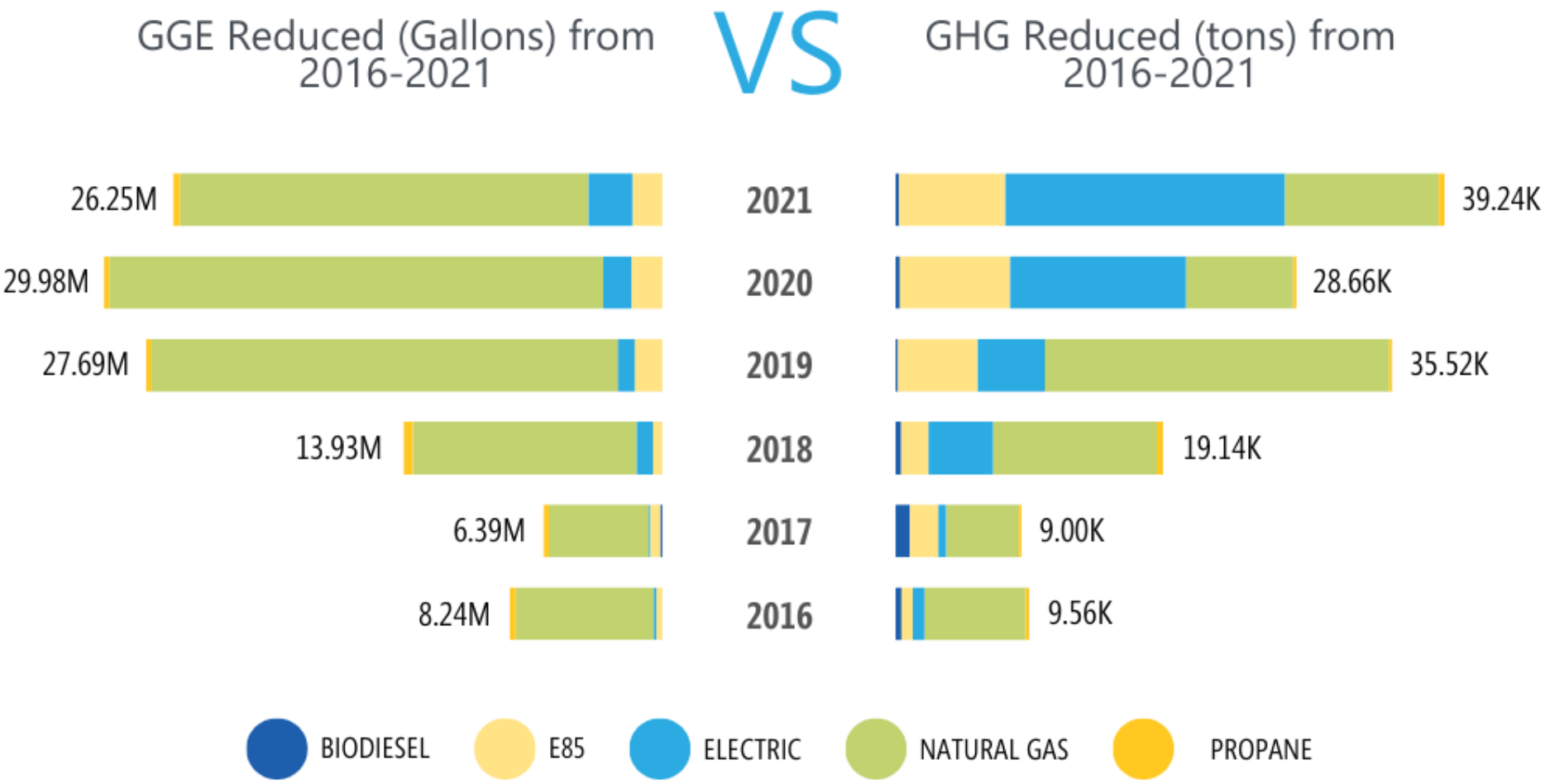
Add at least 60 more AFV stations

- Regional EV charging network
- First Coast Biofuels B20 and E85 fueling network

Continue providing targeted funding for projects that change the market

- $2.75 million for publicly-accessible JTA CNG station
- Drive Electric Florida coalition

Baseline Conditions

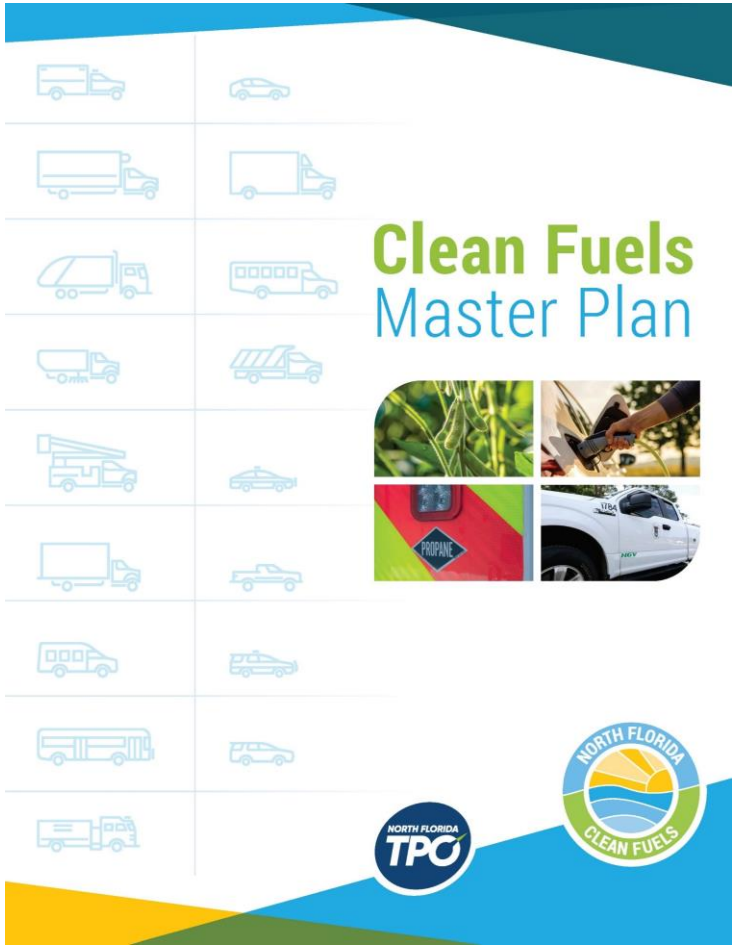


2024 Clean Fuels Master Plan

1. Collect asset data from fleets located in Northeast Florida

2. Quantify the environmental and economic costs and benefits of different alternative fuels

3. Recommend the best solution for fleets based on results of the analysis



2024 Clean Fuels Master Plan

Fleet data on more 8,000 assets were submitted from 15 organizations!

- City of Jacksonville
- City of St. Augustine
- Feeding Northeast Florida
- Fernandina Beach
- Green Cove Springs
- JEA
- JTA
- Nassau County
- NassauTRANSIT
- Neptune Beach
- Orange Park
- Ride Solution (Putnam County)
- Sunshine Bus Co. (St. Johns County)
- St. Augustine Beach
- St. Johns County

Use Cases

Light-Duty & Light Commercial

- Passenger Car
- Police Car
- Passenger Pickup Truck
- SUV
- Police SUV
- Ambulance
- Medium-Duty Pickup Truck
- Utility Cargo Van
- Shuttle/Transit Vans

Medium-Duty

- Delivery Step Vans
- Straight Truck
- School Bus
- Transit Bus

Heavy-Duty

- Bucket/Aerial Truck
- Dump Truck
- Fire Engine
- Freight Truck
- Refuse Truck
- Street Sweeper

2024 Clean Fuels Master Plan

Fuels

Biodiesel (B20)

Hydrogen

Natural Gas (LNG & CNG)

Electricity

Ethanol (E85)

Propane (LPG)

2024 Clean Fuels Master Plan – Fleet Strategies

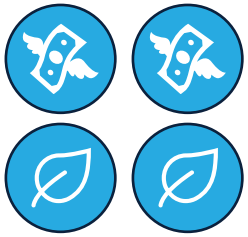
Pathway 1

Focus

Convert diesel fleets to biodiesel

Costs

Benefits



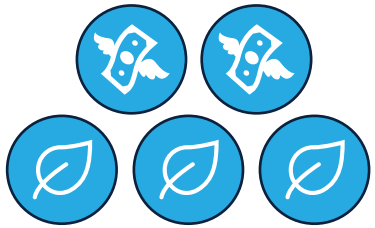
Pathway 2

Focus

Convert fleets to HEV, Diesel HEV, LPG & CNG

Costs

Benefits



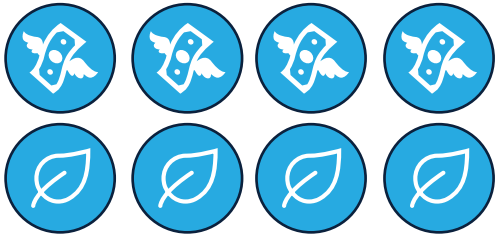
Pathway 3

Focus

Transition to electric vehicles

Costs

Benefits



Pathway 1: Diesel to Biodiesel

Opportunities: 30
Fleets: 9 (1,308 vehicles)

Vehicles: $0
Infrastructure: $5.8M

Fuel Displaced: 15.5M GGE
GHG Reduced: 110.5 mt CO_2

Net Benefit: $39.8M

Pathway 2: Diversify - HEV, Diesel HEV, LPG & CNG

Opportunities: 47
Fleets: 14 (3,997 vehicles)

Vehicles: $27.8M
Infrastructure: $7.2M

Fuel Displaced: 2.8M GGE
GHG Reduced: 135.9 mt CO_2

Net Benefit: $41.7M

Pathway 3:Electrify

Opportunities: 60
Fleets: 14 (3,964 vehicles)

Vehicles: $168.9M
Infrastructure: $28.2M

Fuel Displaced: 55.5M GGE
GHG Reduced: 447.9 mt CO_2

Net Benefit: $148.6M

Policy Strategies

1.Fleet Procurement

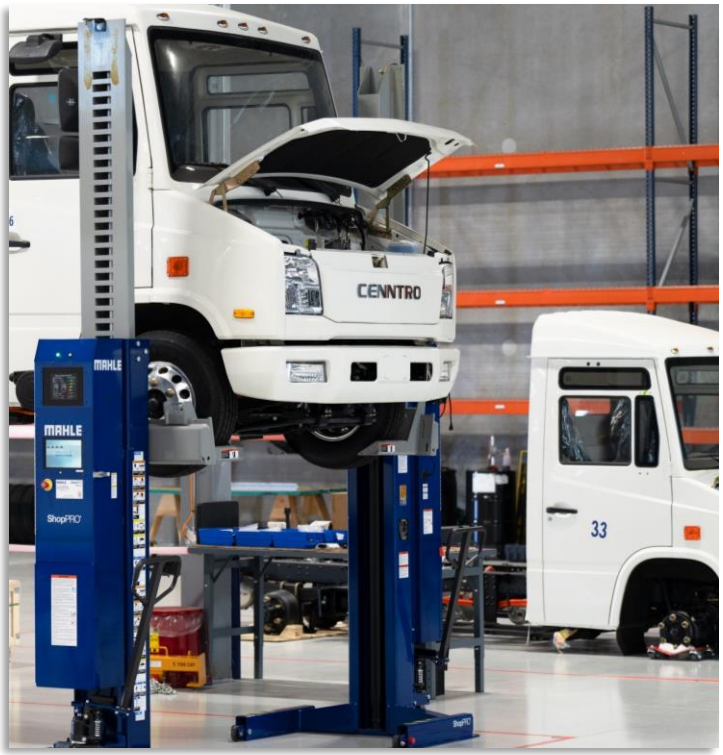
- Conduct full life cycle assessment of replacement vehicles

2.Infrastructure

- Fill infrastructure gaps along major corridors
- Require all new construction or renovations include EV infrastructure
- Develop EV charger specifications with minimum performance requirements

3.Training

- Develop operational policies for all clean fuel fleet vehicle types



Next Steps

1. More than a Plan!
   A Tool.

2. Continue Collecting
   Fleet Data

3. Develop Fundable
   Projects

Questions?

Dave McKee

Transportation Electrification
Program Manager
JEA

2024 ALTERNATIVE FUELS & VEHICLES EXPO

North Florida Clean Fuels Coalition Expo

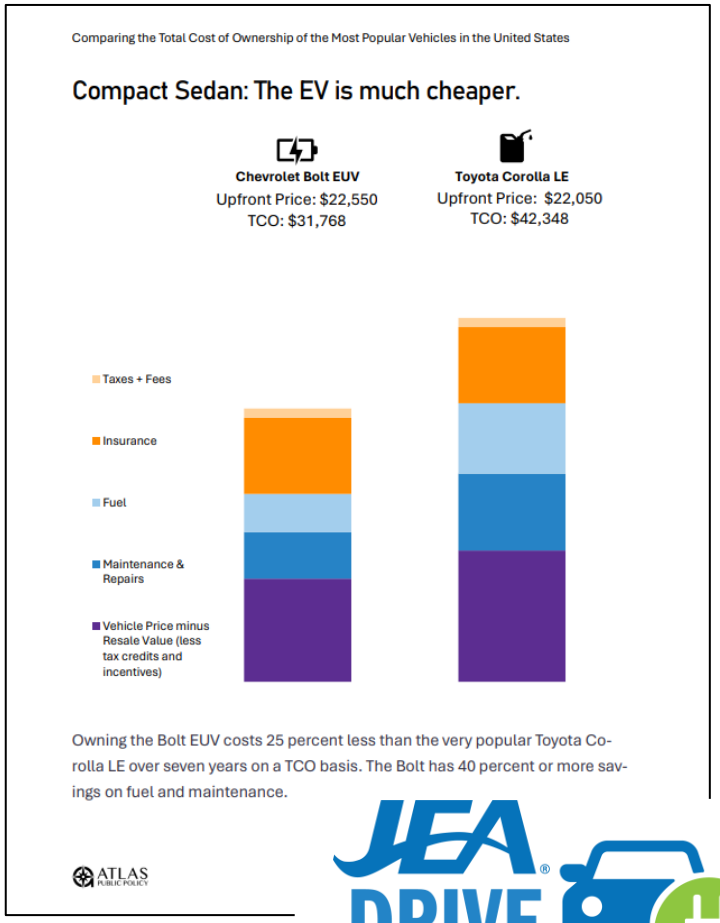
March 2024

NORTH FLORIDA CLEAN FUELS

JEA DRIVE ELECTRIC

Why Electrification?

- Battery electric vehicles emit zero site emissions.
- Electric power generation is getting cleaner over time as high carbon fuel usage is reduced.
- Transportation electrification is on the critical path to atmospheric decarbonization.
- Lower total cost of ownership than gasoline and diesel equivalents.



JEA DRIVE ELECTRIC

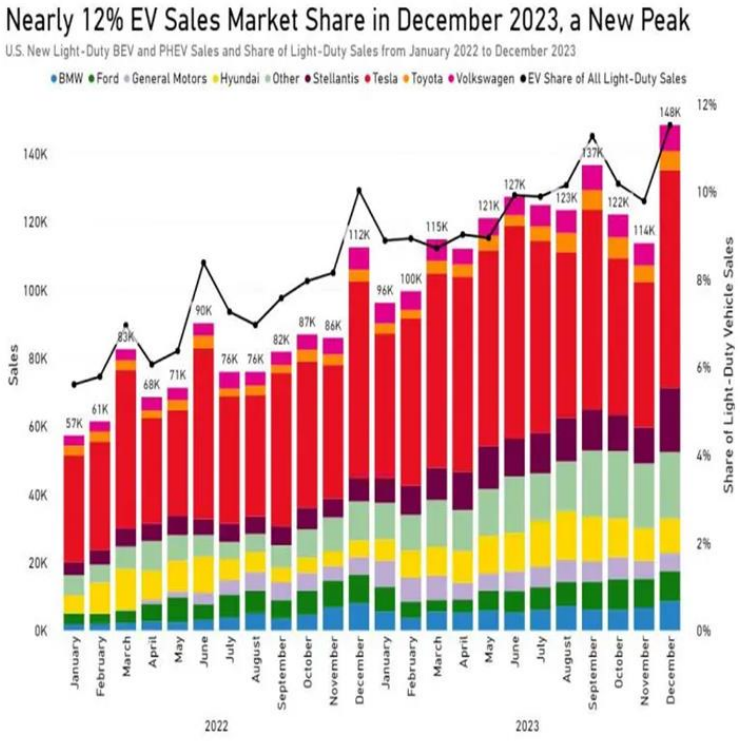
JEA Drive Electric Residential

- Battery Electric Vehicles emit zero site emissions.
- Electric power generation is getting cleaner over time as high carbon fuel usage is reduced.
- Transportation Electrification is on the critical path to atmospheric decarbonization.
- Lower TCO than gasoline and diesel equivalents.

JEA DRIVE ELECTRIC

JEA Drive Electric Residential

- Education and awareness
- Pays customers to charge vehicles during off-peak hours
- Uses existing grid assets to monitor charging
- Places downward pressure on electric rates



JEA DRIVE ELECTRIC

Fleet Electrification

- Engaging fleet owners early
- Education & Awareness
- Managing timeline expectations
- Answering questions
- Providing fleet advisory services
- Helping fleets cut costs

JEA FEP Fleet Pipeline

Lead

- NAS Jax
- First Coast Terminals
- Jax Black Car
- JAA
- Global Outreach Charter Academy
- Jacksonville University

Lead Qualification

- Student Transportation of America
- Town of Orange Park
- Vystar Credit Union
- Quick Tie Products, Inc

Fleet Projects

- Pepsi
- Durham School Services
- Amazon
- Champion Brands
- JEA
- COJ

JEA Contacts

Dave McKee

Transportation Electrification

mckewd2@jea.com

Dave McKee

Scan the QR code to add this contact.

Free TCO Calculator
https://evfleets.jea.zappy-ride.com
JEA Fleet Electrification Program
https://www.jea.com/fleetelectrification
JEA Drive Electric Program
https://www.jeadriveelectric.com/

Brandon Cox

Regional Director of Autogas
Alliance Autogas/Blossman Gas

2024 ALTERNATIVE FUELS & VEHICLES EXPO

BRANDON COX, REGIONAL DIRECTOR

March 26, 2024

Vehicle Platforms

Why AutoGas?

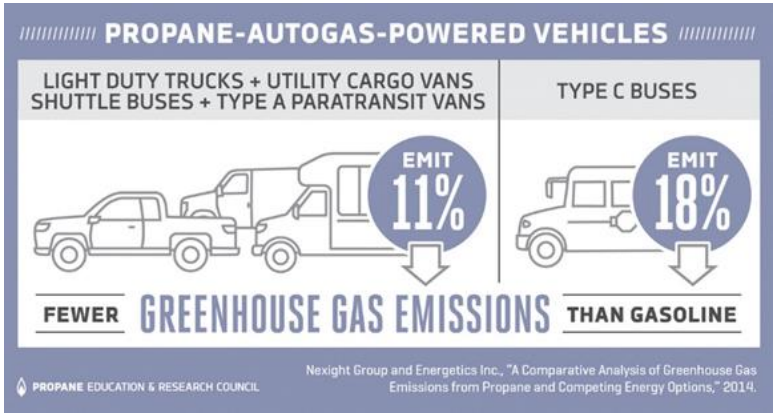
ECONOMICS:

ENERGY SECURITY:

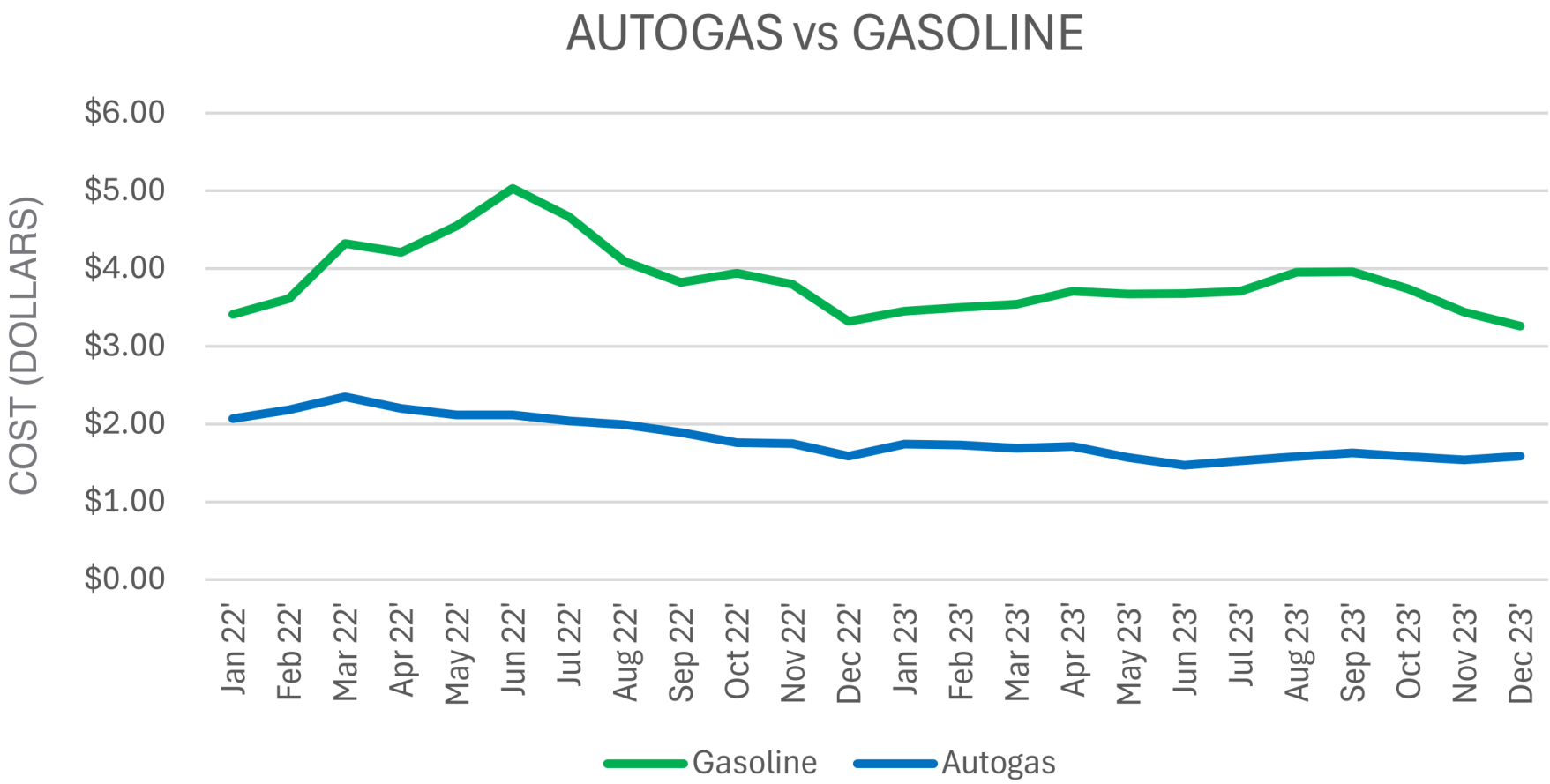
99%

of propane autogas used in the U.S. is produced in **North America**

ENVIRONMENT:



www.allianceautogas.com Office: 336-963-3939


AUTOGAS vs GASOLINE
COST (DOLLARS)
$6.00
$5.00
$4.00
$3.00
$2.00
$1.00
$0.00
Jan 22'
Feb 22'
Mar 22'
Apr 22'
May 22'
Jun 22'
Jul 22'
Aug 22'
Sep 22'
Oct 22'
Nov 22'
Dec 22'
Jan 23'
Feb 23'
Mar 23'
Apr 23'
May 23'
Jun 23'
Jul 23'
Aug 23'
Sep 23'
Oct 23'
Nov 23'
Dec 23'
Gasoline
Autogas

Federal Incentive – Tax Credit

Alternative Fuel Excise Tax Credit

NOTE: This incentive was originally set to expire on December 31, 2021, but has been extended through December 31, 2024, by Public Law 117-169.

A tax incentive is available for alternative fuel that is sold for use or used as a fuel to operate a motor vehicle. A tax credit in the amount of $0.50 per gallon is available for the following alternative fuels: natural gas, liquefied hydrogen, propane, P-Series fuel, liquid fuel derived from coal through the Fischer-Tropsch process, and compressed or liquefied gas derived from biomass. For propane and natural gas sold after December 31, 2015, the tax credit is based on the gasoline gallon equivalent (GGE) or diesel gallon equivalent (DGE). For taxation purposes, one GGE is equal to 5.75 pounds (lbs.) of propane and 5.66 lbs. of compressed natural gas. One DGE is equal to 6.06 lbs. of liquefied natural gas.

For an entity to be eligible to claim the credit they must be liable for reporting and paying the federal excise tax on the sale or use of the fuel in a motor vehicle. Tax exempt entities such as state and local governments that dispense qualified fuel from an on-site fueling station for use in vehicles qualify for the incentive. Eligible entities must be registered with the Internal Revenue Service (IRS). The incentive must first be taken as a credit against the entity's alternative fuel tax liability; any excess over this fuel tax liability may be claimed as a direct payment from the IRS. The tax credit is not allowed if an incentive for the same alternative fuel is also determined under the rules for the ethanol or biodiesel tax credits.

For more information about claiming the credit, see IRS Form 4136, which is available on the IRS Forms and Publications website.

(Reference 26 U.S. Code 6426 and Public Law 117-169)

Point of Contact
Excise Tax Branch
U.S. Internal Revenue Service Office of Chief Counsel
Phone: (202) 317-6855
http://www.irs.gov/

Jurisdiction: **Federal**

Type: **Incentives**

Agency: **U.S. Internal Revenue Service**

Enacted: **Aug 10, 2005**

Amended: **Aug 16, 2022**

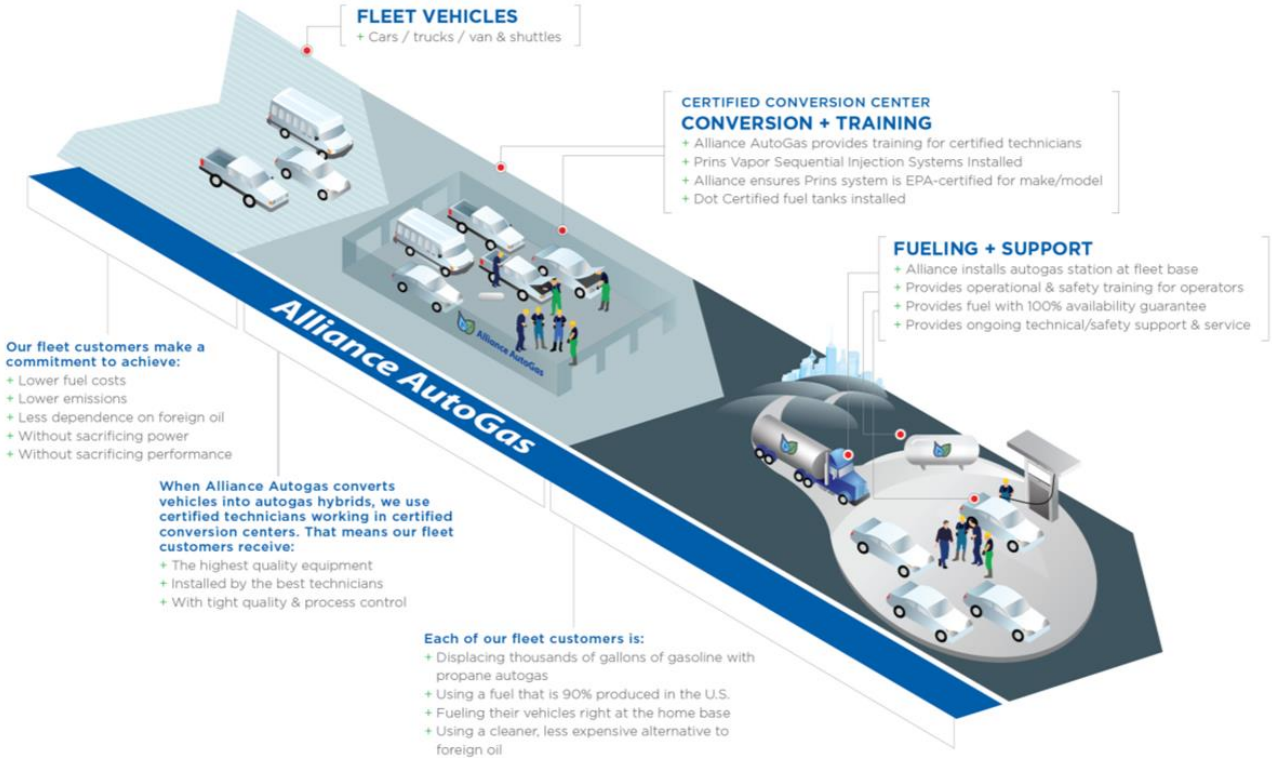
Technologies: **Hydrogen Fuel Cells, Natural Gas, Other, Propane (LPG)**

See all Federal Laws and Incentives.

Annual Tax Credit for Propane Fuel Gas
= $0.37/gallon
Additional money back to you!

Complete Solution

VEHICLE CONVERSION | ON-SITE FUELING | DATA INTEGRATION | OPERATIONAL TRAINING | TECHNICAL & SAFETY SUPPORT

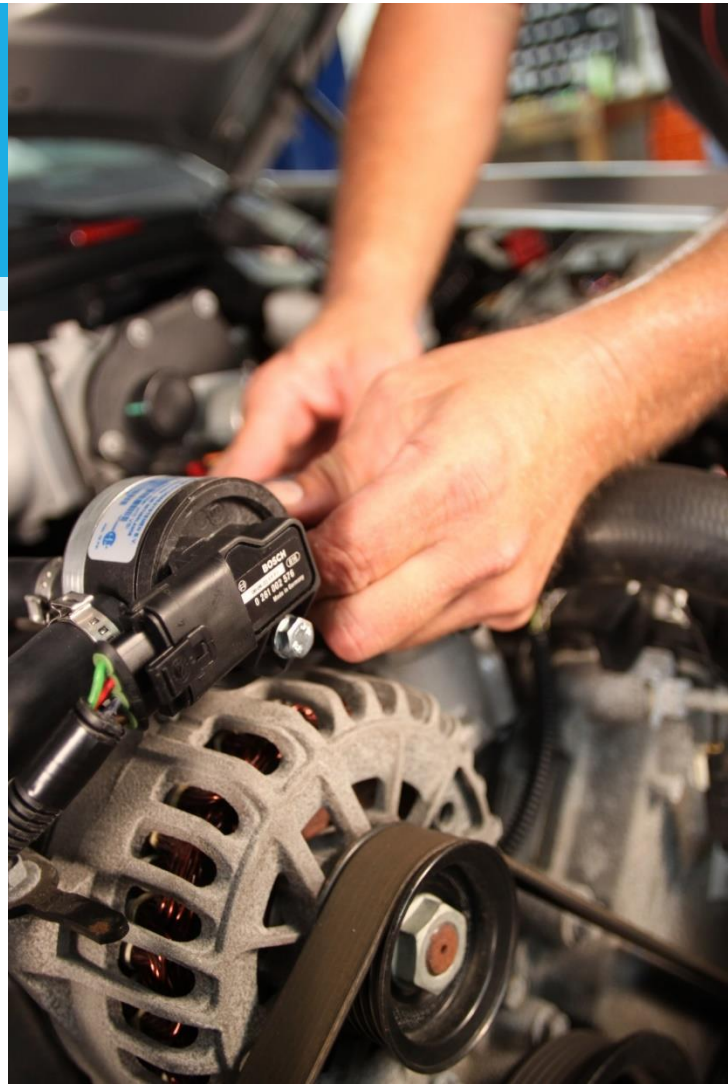


www.allianceautogas.com Office: 336-963-3939

Conversion Systems

- Alliance AutoGas offers a hybrid system, giving fleet vehicles the flexibility to run on either autogas or gasoline, eliminating range anxiety.
- Our innovative Plug-and-Play system requires no permanent vehicle modifications and comes with an industry leading 5-year, 100,000-mile warranty.

- All of our systems have undergone rigorous testing and are EPA certified. CARB approvals in process for select systems
- Alliance offers tank configurations to fit the customer's needs.



Fueling Infrastructure

- Alliance will handle all project management, permitting, and training for your new infrastructure
- Data management capabilities, or the option to integrate with your current data management system
- Remote tank fuel level monitoring
- Alliance AutoGas refueling infrastructure comes with the Staubli Ultra-low Emissions Quick Connect Nozzle. The nozzle:
  - Has a similar refueling process to a gasoline nozzle
  - Is safer to use than a gasoline nozzle
  - Has a comparable filling time to a gasoline nozzle

Triton Dispensing Unit & Data Management System

www.allianceautogas.com Office: 336-963-3939

Jose Alberto De Antonio

CEO

BDLA - Biodiesel Las Americas

2024 ALTERNATIVE FUELS & VEHICLES EXPO


BDLA
BioDiesel Las Americas

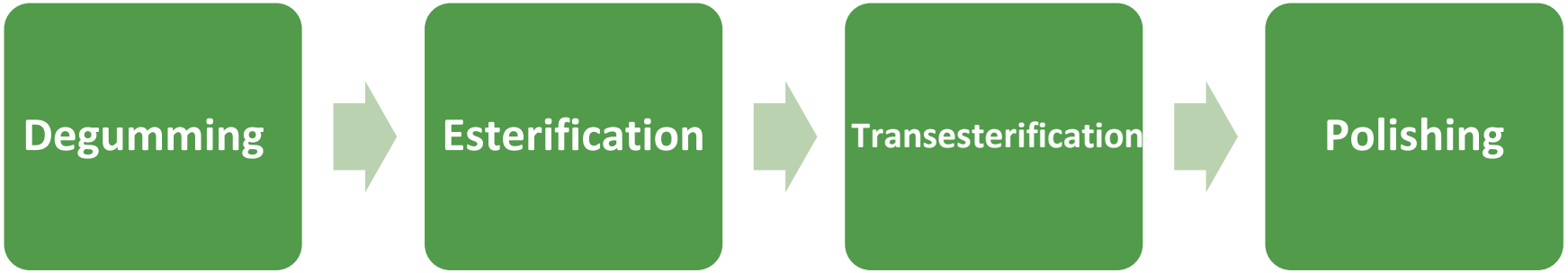
BDLA
BioDiesel Las Americas

A little bit of history

- Former GGS Miami registered in Florida in 2011 → The name changed in 2017 by the current owners
- Plant upgraded and fully automated by the end of 2023
- Dedicated to produce and sell 7.5 MMGY of biodiesel as well as 1 MMGY of glycerin
- Recently, DBA registered in Florida, as BDLA

BDLA
BioDiesel Las Americas

BDLA Process Steps



Glycerin Purification

Methanol Distillation

BDLA
BioDiesel Las Americas

Biodiesel Blends

- **THE NORM - B5 and lower blends** (up to 5% of biodiesel)
- **THE USUAL - B6 to B20 blends** (6% to 20% of biodiesel) → B20 is a common blend, a good balance of cost, emissions, and image
- **THE VISIONARY – B100** (pure biodiesel) → Provides additional benefits as increased lubricity, higher ASTM cetane specification, and a cleaner burn

BDLA - Environment

Biodiesel is an environmentally friendly and sustainable alternative for energy consumers.

Focus areas:

- Contributing Net Zero by 2050
- Efficient energy consumption
- From waste to energy (Used Cooking Oil)
- Promotes Circular Economy
- Responsible process water disposal
- Safety and health standards equal our productivity and quality

BDLA
BioDiesel Las Americas

FAQ

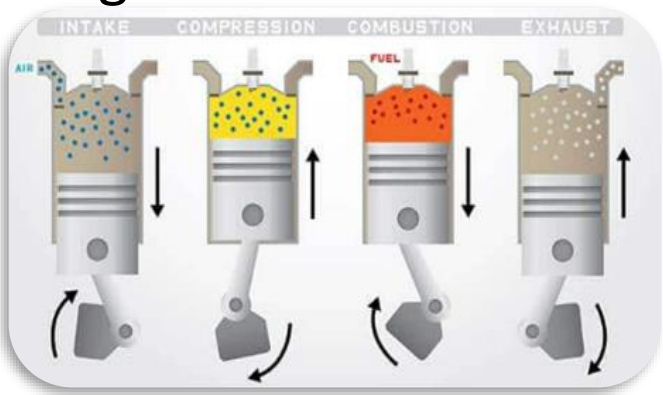
1. Does it affect the vehicles performance?
2. What about the Engine Warranty?

BDLA
BioDiesel Las Americas

Vehicle Performance

Increased Lubricity

Higher Cetane Number



Generate less fumes

BDLA
BioDiesel Las Americas

Engine Warranty

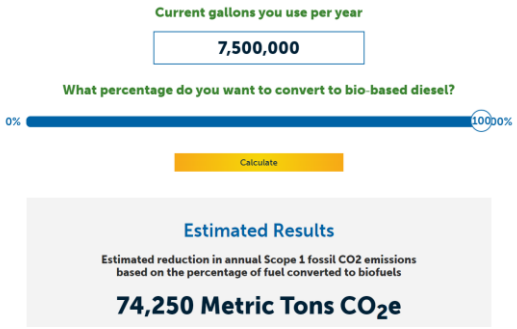
Engine companies do not produce or sell fuel, so they do not provide a warranty for fuel.

If a customer brings in a vehicle that has used biodiesel and the customer is told that the warranty is voided solely because the customer is using biodiesel, this **violates the Magnuson-Moss Warranty Act**.

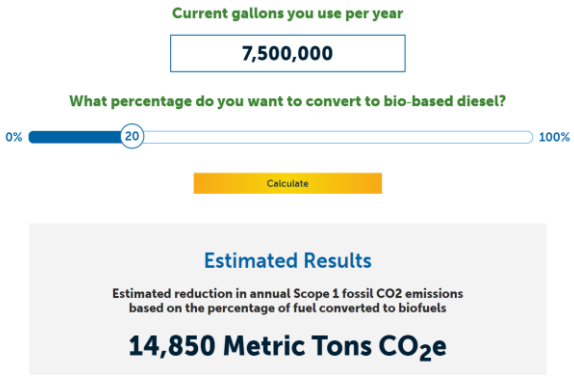
Making Florida better

The environmental contributions of BDLA's upcoming 7.5 million gallons per year production capacity could be illustrated with the following equivalents:

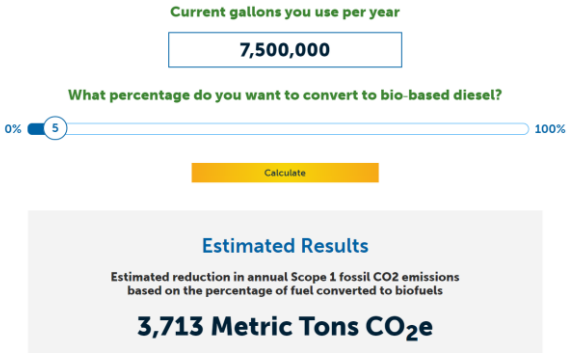
B100



B20



B5



Reference: https://www.regi.com/services/emissions-calculator

BDLA
BioDiesel Las Americas

BDLA Strengths

- Fully Automated plant
- BQ-9000 certification (in progress)
- Zero waste facility (as defined by the EPA)
- Environment-friendly plant
- Biodiesel made from UCO
- Feedstock flexibility
- Refined glycerin
- Only Biodiesel producer in Florida
- Premium freight location (near port & rail)
- Biodiesel is a premium fuel with clear benefits

BDLA

BioDiesel Las Americas

From Waste to Energy, fueling the future!

- **Linked In & FB**: Biodiesel Las Americas - BDLA
- **Instagram:** @BDLAUS
- **Phone** (305)851-6974
- info@bdlaus.com

Monte Patrick

Director

TECO Peoples Gas

2024 ALTERNATIVE FUELS & VEHICLES EXPO

Alternative Fuel Q & A

2024 ALTERNATIVE FUELS & VEHICLES EXPO

Paul Soar

Professor, Automotive Technology
FSCJ

2024 ALTERNATIVE FUELS & VEHICLES EXPO

EV Technician Development

Professor Paul Soar
Automotive Technologies
Florida State College at Jacksonville

FSCJ Automotive Programs

FSCJ
Florida State College at Jacksonville

Automotive Service Management Technology

A.A.S. degree program

Technical Certificates:

- Automotive Technician
- ADAS Technician

Coming Soon – EV technician

Accredited through

ASE Education Foundation

Grants Funded through

NSF 2000618

EV Training - Broad Based Approach

- OEM training is too specific to fit the masses:
  - OEM's have specific training for warranty purposes
  - Low OEM dealer density in most Florida cities
- EV training is needed outside of the major OEM's.
  Ex. JTA, Beep (shuttles), Centro, Fleets & Independent Service Centers, etc.
- Trend is toward the repair of batteries rather than replacement ⟶ Techs needed with battery training

EV Repairs

Types of EV Repair

- ✓Battery Checks
- ✓Cell/Module Replacement
- ✓Battery Reconditioning
- ✓Full Battery Replacement
- ✓Cooling System Maintenance

EV Sustainability

- Prevention of Battery Waste
- Battery Reuse

  Repurposing batteries for less-demanding applications like stationary energy storage

- Recycling

  Extracting cobalt, lithium, and nickel for the manufacture of new batteries.

EV Technician Program - Draft

Existing Courses	Intro to Automotive
	Electrical Systems (low voltage)
	Electrical Systems II (networking)
	Brake Systems
	Steering and Suspension

Currently being developed

Newly Proposed Courses	EV Fundamentals and Safety
	HV Interlock Systems
	HV Battery Management
	EV Drive Systems and Controls
	Power Inverter Systems and Controls
	EV HVAC and Thermal Management

	Total	**45 credits**

General Education Courses

General Education Coursework	Course #	Credit hours
College Algebra	MAC 1105	3
English Composition	ENC 1101	3
Physics	PHY 1020	3
Humanities	HUM 2020	3
Social Science	AMH 2020	3
	Total	**15 credits**

Total Program Credit Hours for A.S Degree		**60 credits**

Electric Vehicle Technician – Associate of Science Degree

Curriculum adapted from the National Electric Vehicle Technology Exchange (NEVTEX)

- Aligned with SAE
- Mirrors SAE EV courses

PROBITAS AUTHENTICATION
A Program of SAE ITC

https://www.sae-itc.com/programs/probitas/ev-technician

FSCJ Florida State College at Jacksonville

Timeline for program development

- Must be approved through the FL Dept of Education
- Currently coordinating with other FL state colleges
- Courses will need to be developed and approved at the local college level
- Possibly Spring of 2025 before courses are ready

Automotive Technologies
Florida State College at Jacksonville

Contact:
Professor Paul Soar
p.soar@fscj.edu

Ashantae Green

Sustainability Manager
City of Jacksonville

2024 ALTERNATIVE FUELS & VEHICLES EXPO

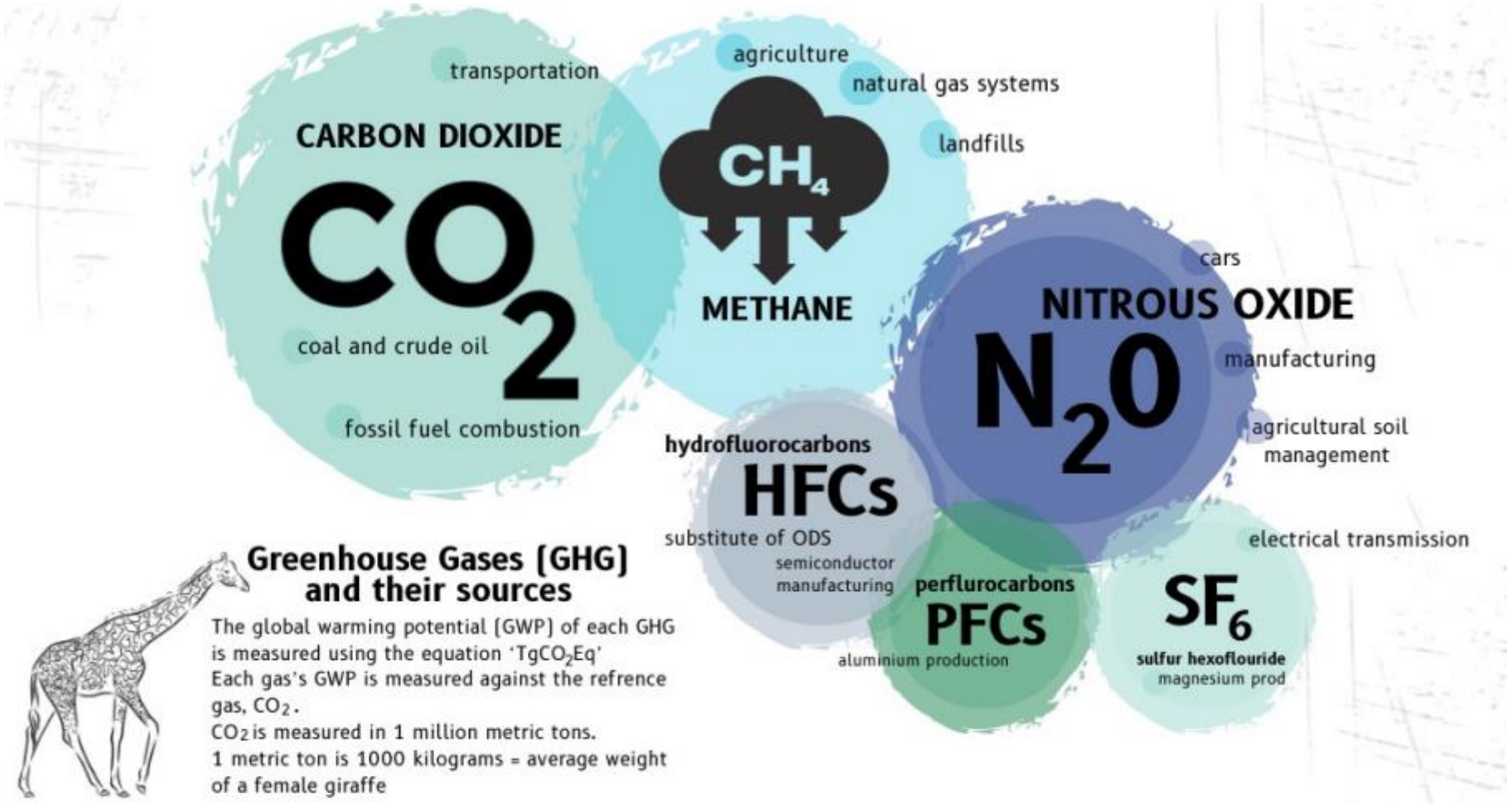
North Florida Alternative Fuels & Vehicles Expo

Tuesday, March 26, 2024

Ashantae Green, Sustainability Manager
City of Jacksonville

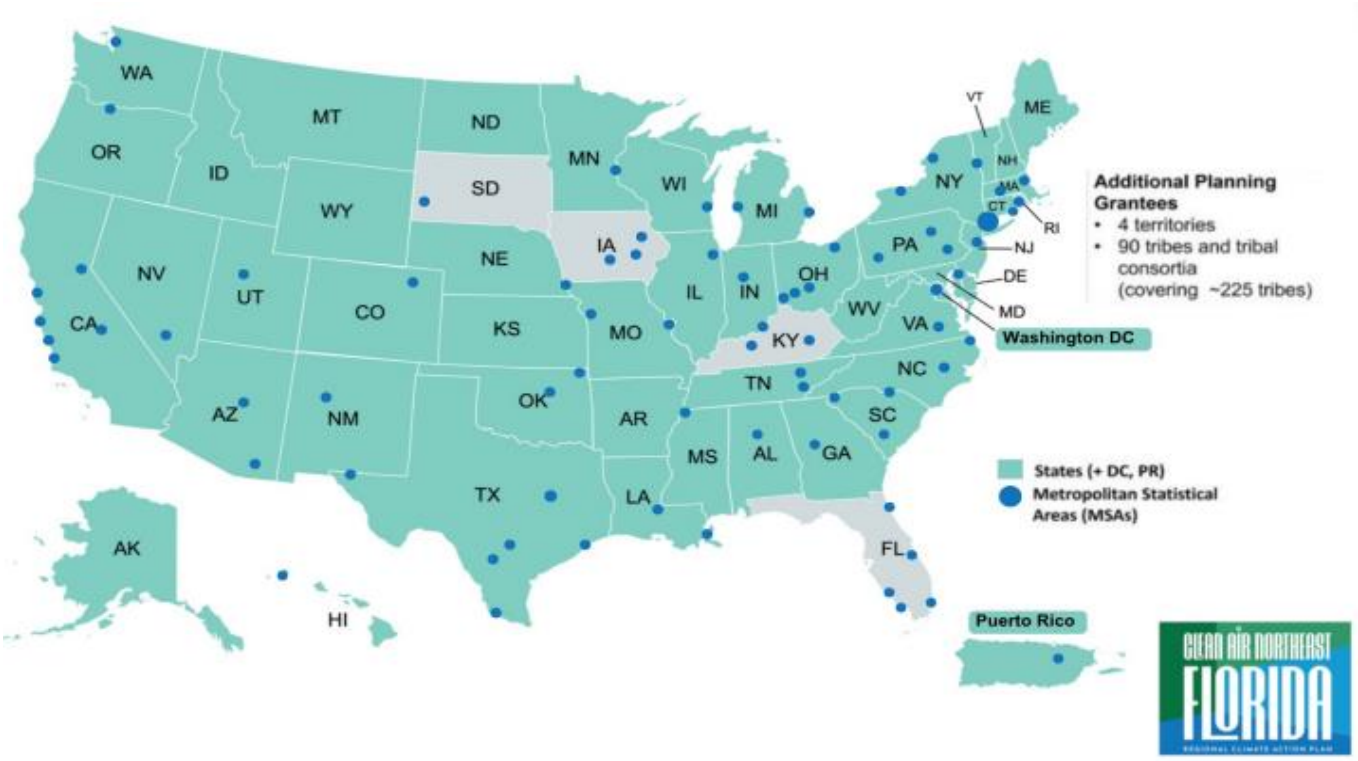
What is Sustainability?

Measuring Sustainability: Greenhouse Gases

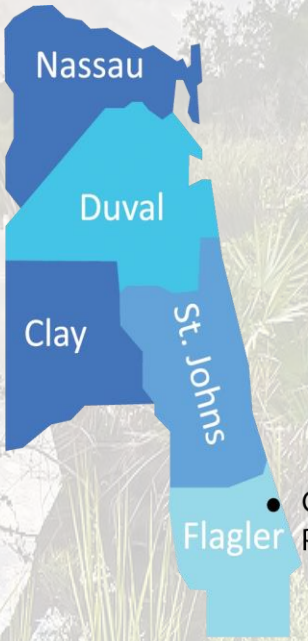


NE FL Climate Pollution Reduction Grant Overview

- EPA Climate Pollution Reduction Grant
  - CPRG ph 1 planning grant ($1M)
  - CPRG ph 2 implementation grant ($2M-$550M)

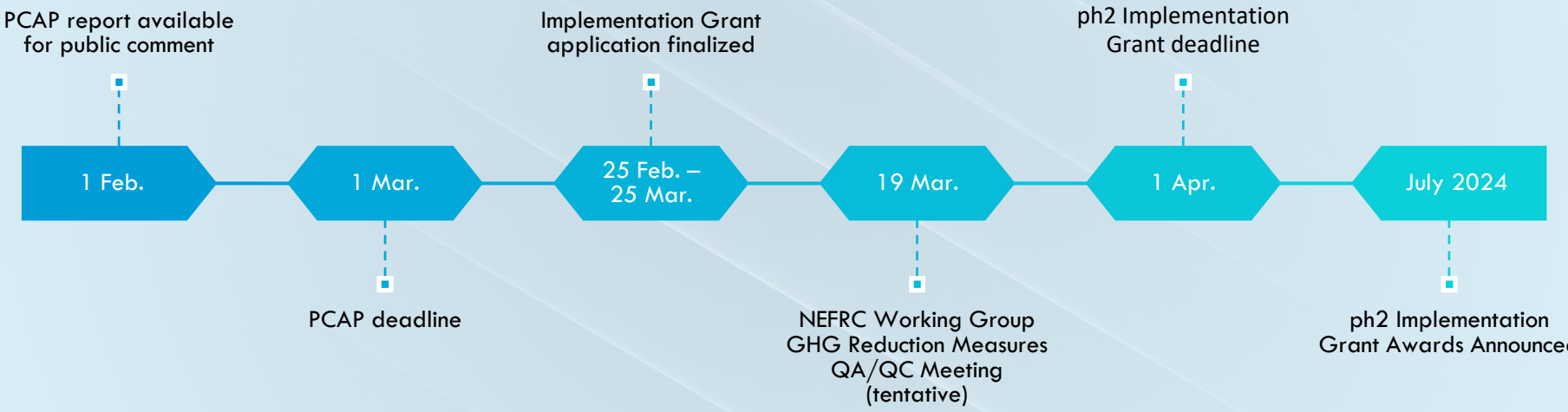


What is the Northeast Florida MSA?

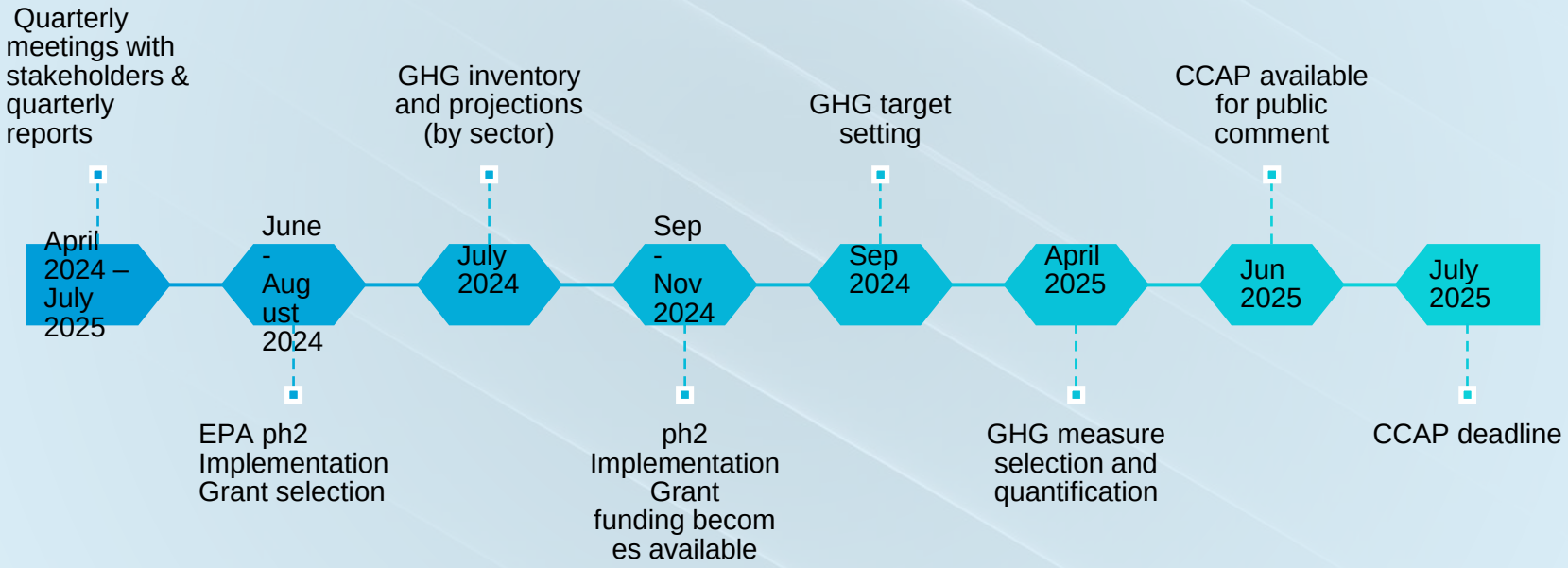


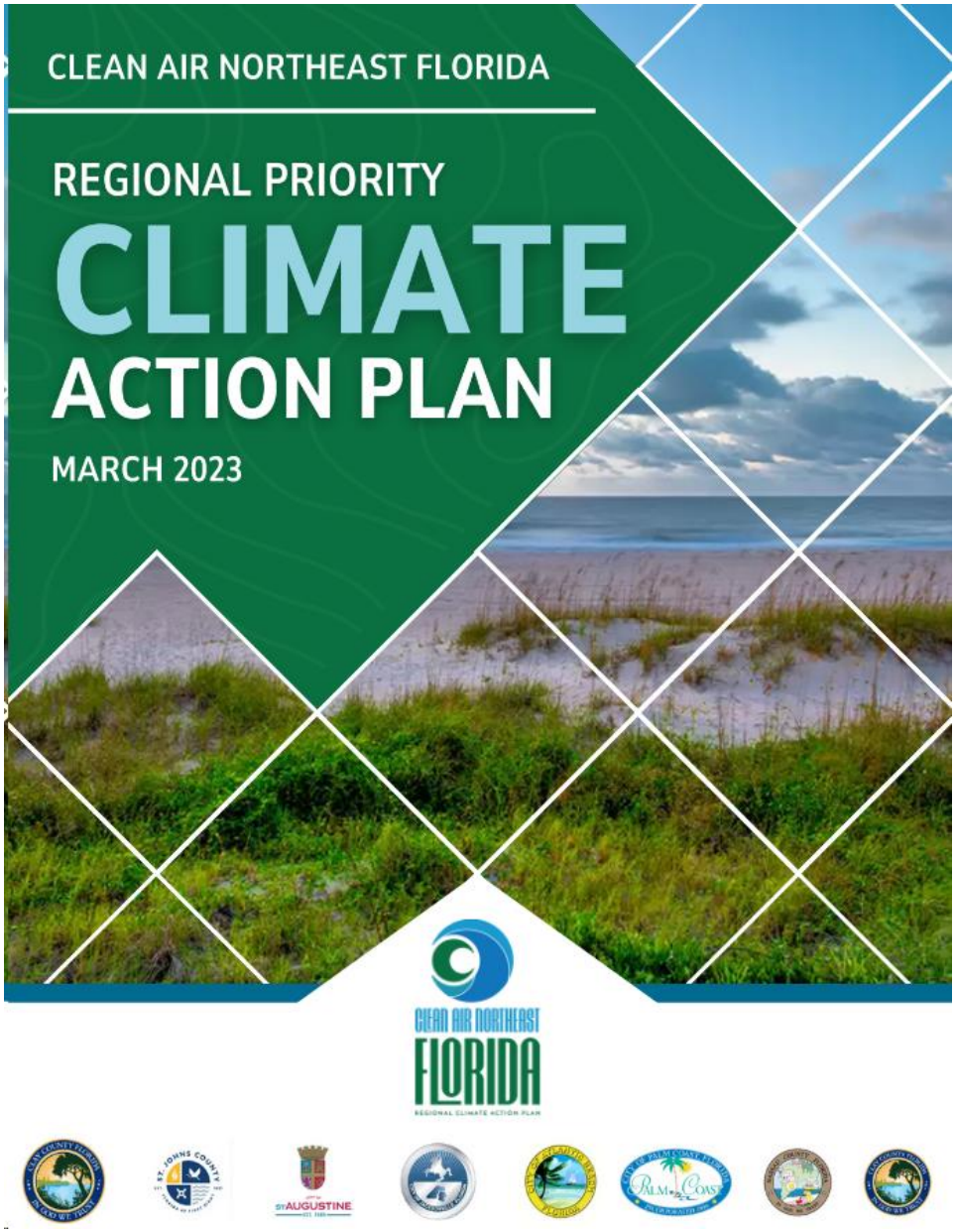
Jacksonville Metropolitan Statistical Area
Duval, Clay, St. Johns, Nassau, & the City of Palm Coast.

Priority Climate Action Plan (PCAP) Project Timeline

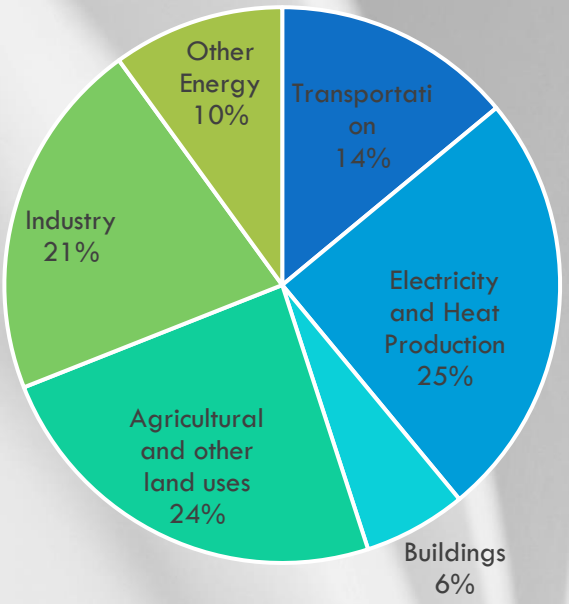


Priority Climate Action Plan (PCAP) Project Timeline



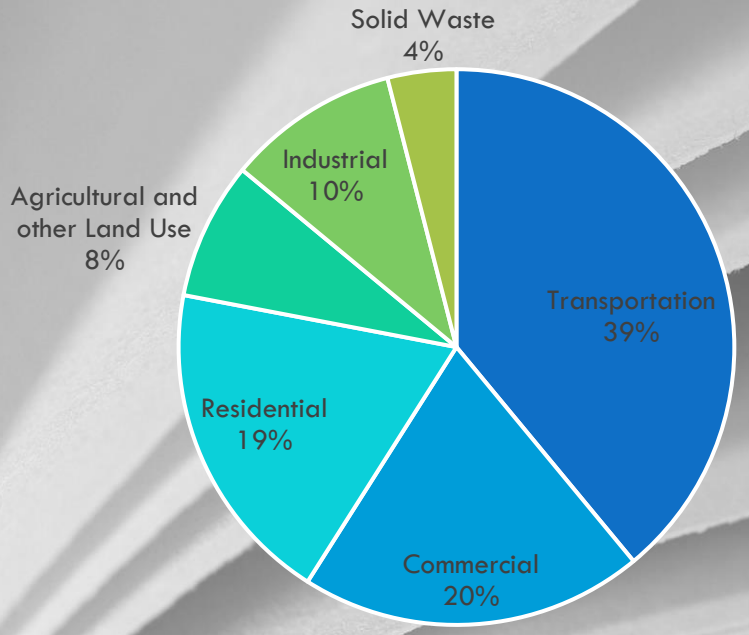

CLEAN AIR NORTHEAST FLORIDA
REGIONAL PRIORITY
CLIMATE
ACTION PLAN
MARCH 2023
CLEAN AIR NORTHEAST
FLORIDA
REGIONAL CLIMATE ACTION PLAN

Global CO_2 Emissions by Sector



Source: IPCC 2014 - Based on global emissions from 2010. Details about the sources included in these estimates can be found in the *Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*.

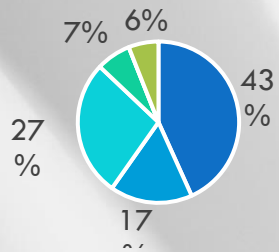
Northeast Florida CO2 Emissions by Sector



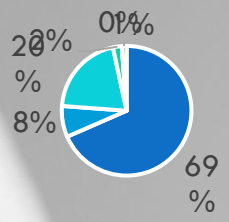
Source: Clean Air NEFL Priority Climate Action Plan 2024

How does my county compare?

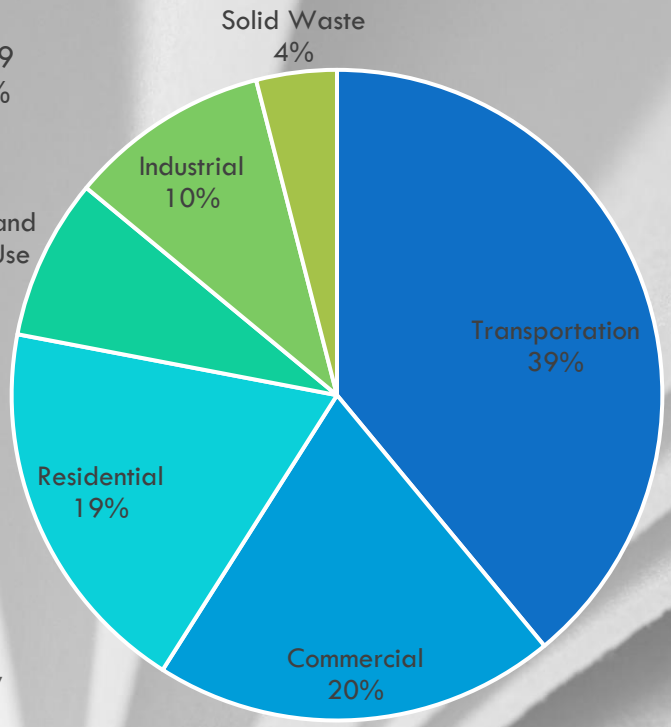
Clay County



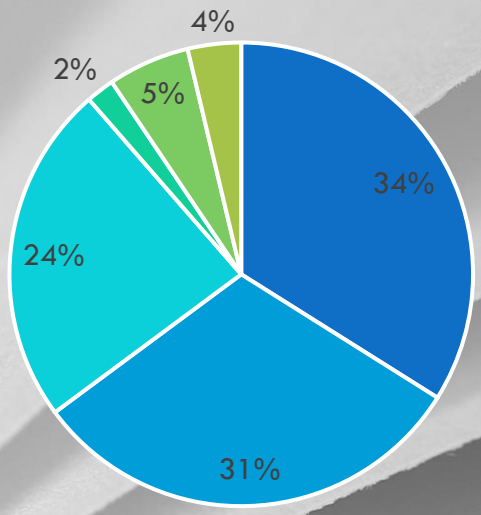
Palm Coast



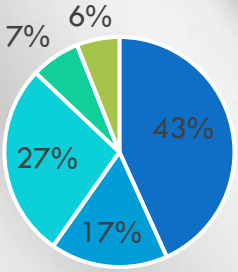
Northeast Florida



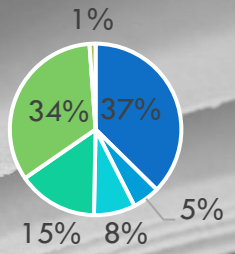
Duval County



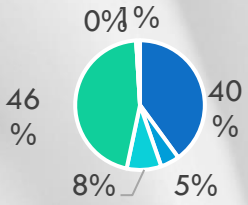
St. Johns County



Nassau County



Baker County



Source: Clean Air NEFL Priority Climate Action Plan 2024

NEFL Priority Measures

Transportation

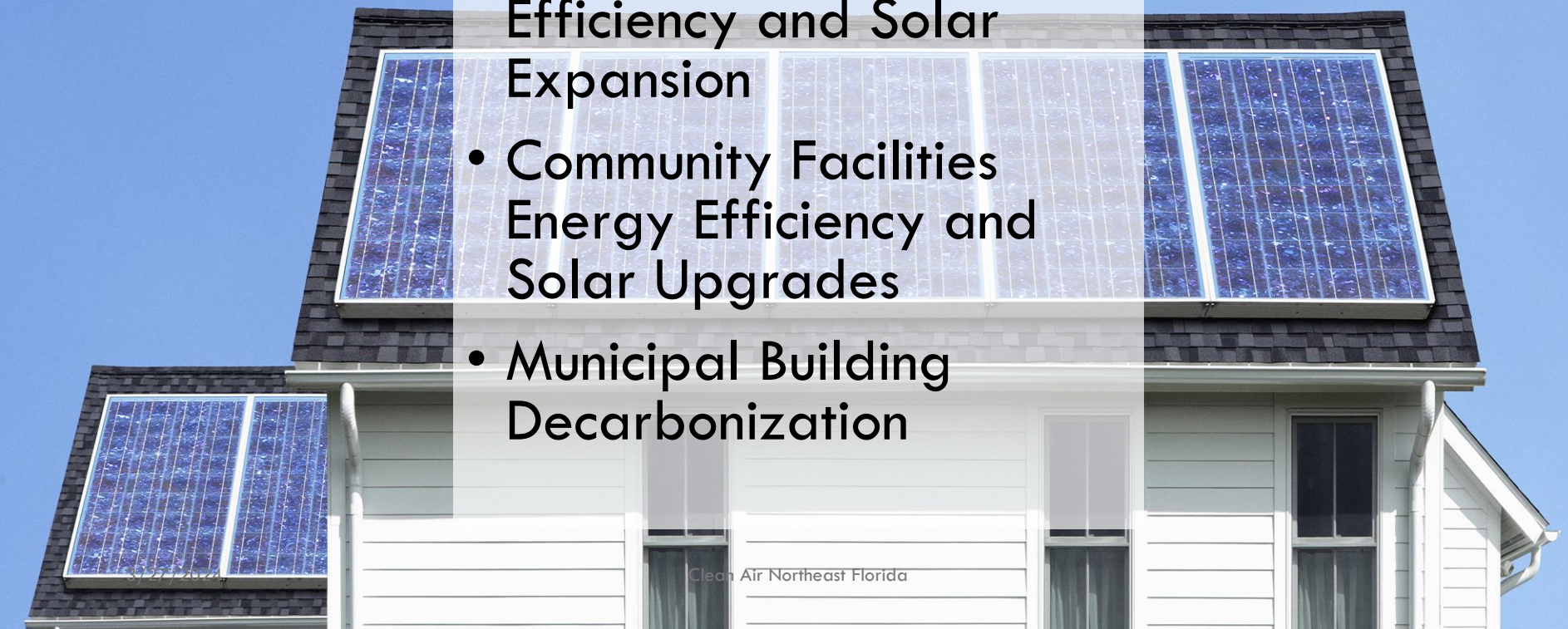
- North Florida TPO's Clean Fuels Initiative
- Mass Transit Expansion
- Mode Shift
- Bicycle and Pedestrian Programs
- Transition Fleet to EV

Transportation GHG Reduction Strategies		2030	2050
North Florida TPO's Clean Fuels Initiative		72,345	482,297
Mass Transit and Multimodal Transportation	10% Conversion annually	61,000	919,000
	15% Conversion annually	102,000	3.2M
	20% Conversion annually	150,000	9.5M
Bicycle and Pedestrian Paths		7,695	38,475
EV Fleet Transition (per 1000 vehicles)		187,000 annually	

NEFL Priority Measures

Electrical Grid and Residential/Commercial Buildings

- Increase Renewable Energy to the grid
- Residential Energy Efficiency and Solar Expansion
- Community Facilities Energy Efficiency and Solar Upgrades
- Municipal Building Decarbonization




HOME
PROJECT BACKGROUND
GET INVOLVED
TEAM
PROJECT DOCUMENTS
CLEAN AIR NORTHEAST FLORIDA
REGIONAL CLIMATE ACTION PLAN
GET INVOLVED
Visit our website!
SCAN ME

Ways to Engage

- Website – cleanairnortheastflorida.com
- Email: cprg@coj.net (goes to three people)
- Sign-up for updates/newsletter via website
- Engagement 5 Question Survey: www.surveymonkey.com/r/5R5C6FZ
- Community Survey
- Attend future meetings

SCAN ME

Please visit and sign up for updates on cleanairnortheastflorida.com

Thank You!

Ashantae Green
Agreen@coj.net

(904) 255-7847

SCAN ME

Questions?

NorthFloridaCleanFuels.com

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