



# Alternative Fuels Corridor Implementation

MARAMA Workshop

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Tom Wolf, Governor

Patrick McDonnell, Secretary

# Energy Programs Office

## State Energy Office within our DEP

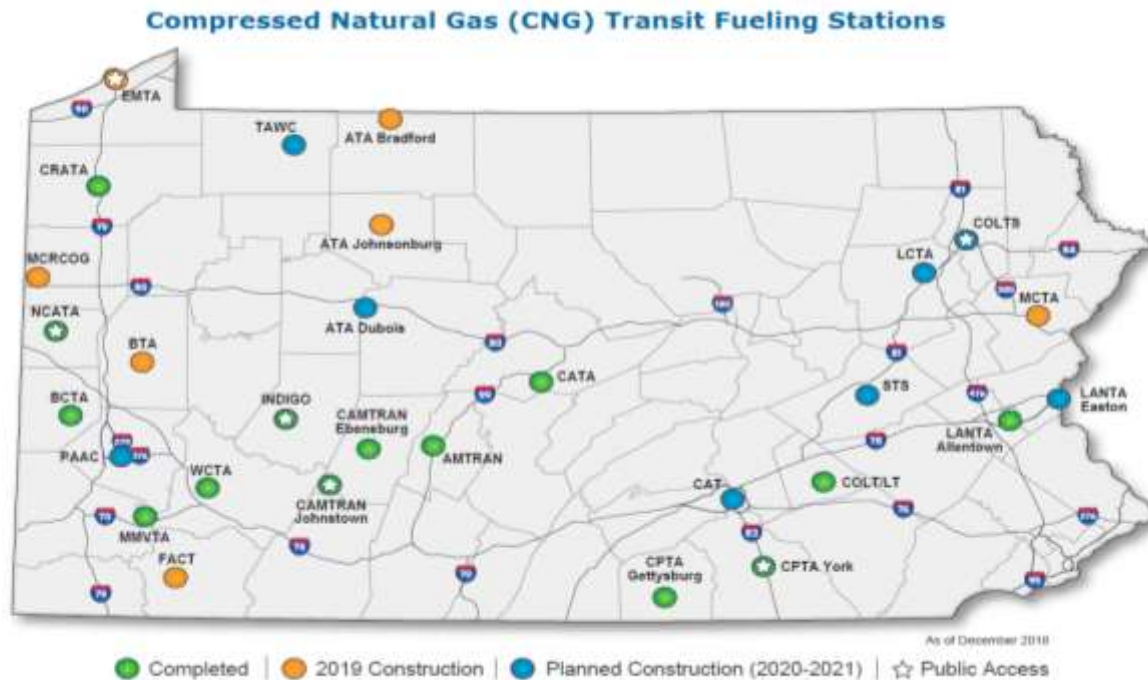
- State-level energy planning;
- Energy assurance and resilience planning;
- Energy-efficient and green buildings;
- Renewable energy;
- Funding for energy research, development, deployment and demonstration (RDD&D);
- Alternative fuel transportation programs.

# Background: Incentive Programs

- Alternative Fuels Incentive Act, 1992 (Revised in 2004)
  - Created a competitive grant program and rebate program
  - Seeking good projects wherever they exist in PA (private or public fueling, fleet conversions, innovative technology projects, rebates for individuals buying vehicles)
- Natural Gas Vehicle Program, 2013-17
  - One-time \$20 million
  - Program was based on funding fleet vehicles for businesses interested in CNG over 14,000 pounds
  - Vehicles needed a place to fuel before payment
- Department of Community and Economic Development

# Background: Additional Investment

- PennDOT P3 Program - In 2016, partnership with Trillium CNG to design, build, finance, operate, and maintain compressed natural gas (CNG) fueling stations. The CNG fueling stations will supply gas to more than 1,600 public-transit buses at the 29 sites.



# ▶ Background: FAST ACT Corridors Programs

- FAST ACT Corridor nomination process
  - Made 3 years of “ready” and “pending” corridor nominations
  - Primarily EV and CNG on most corridors



# Going Forward

- State's interest in filling alternative fuel gaps in corridors using the FAST ACT corridor process
- TCI and NESCAUM have a focus on Northeast and MidAtlantic corridors
- Electrify America's process has a corridor focus

# Elements of Alt Fuel Corridor Implementation

- Multi-agency Collaboration
- Stakeholder participation
- Incentives
- Promotion
- Multi-state collaboration

# Alt Fuel Corridor Implementation

## Multi-agency Collaboration:

- Identification and submission of Signage Ready and Pending corridors to FHWA
- Ongoing dialogue on technology, usage, and station development, barriers
- Need: Data driven-analytical approach to ongoing needs of an expanding alt fuel corridor
  - Benchmarking
  - Is the alt fuel corridor expanding?
  - Are critical gaps being filled?



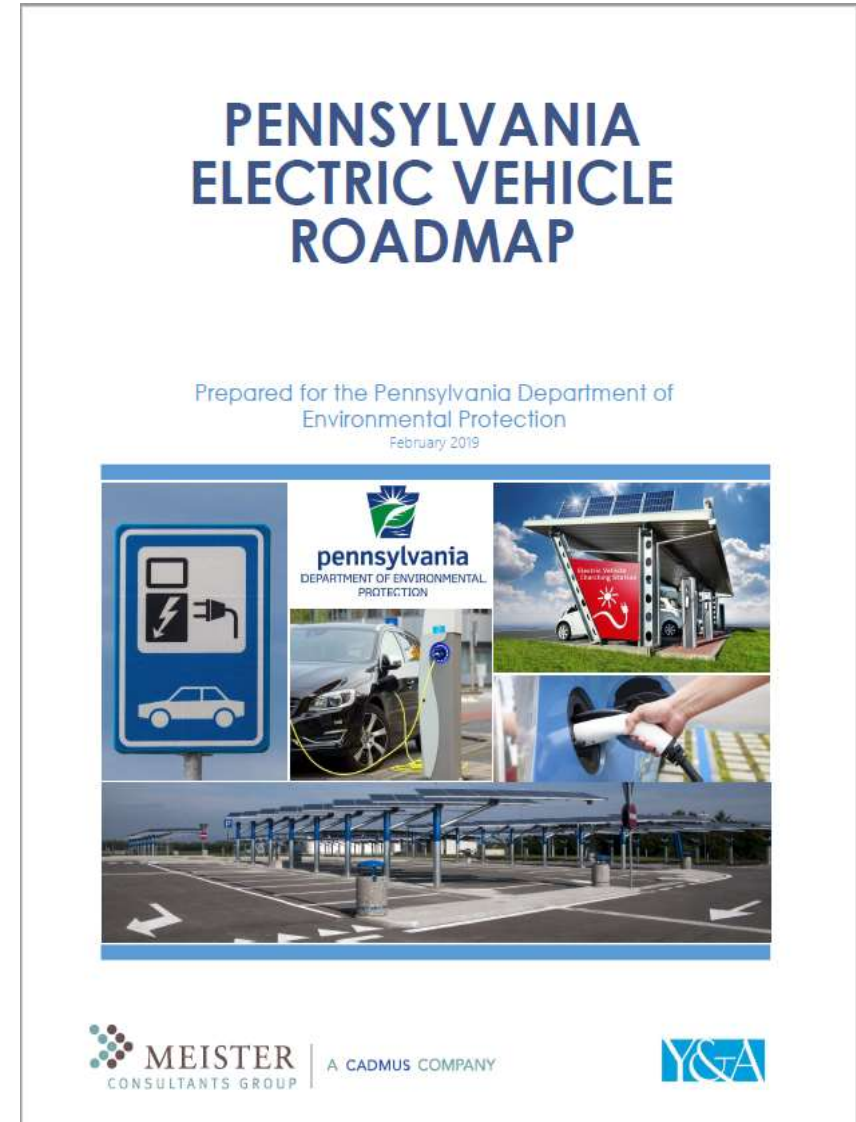
# Alt Fuel Corridor Implementation

## Stakeholder Participation:

- Clean Cities organizations
- Drive Electric PA Coalition
- Working history with CNG providers and large commercial CNG fleet users through our incentive programs
- NEED: Dialogue with primary businesses and users of alt fuels on each corridor or multiple corridors in a portion of the state

# Stakeholder Participation

- Report prepared for DEP using DOE State Energy Program funds
- The result of 10 months of policy research, data and policy analysis
- A collaboration with the Drive Electric PA Coalition through professionally facilitated sessions.



# Stakeholder Participation

The Roadmap includes economic, energy, and environmental modeling of EV adoption scenarios out to **2033**.

- **Energy:** Decrease in gasoline use nearly 25%. Electricity use in transportation could increase over 375%, but account for approximately 6% of Pennsylvania’s total electricity use.
- **Emissions:** EVs could reduce the emissions from light-duty vehicles over 15%, and decrease NOx and VOCs over 25% each.
- **Social & Environmental:** Savings of about \$500 million in combined damages from greenhouse gases and criteria pollutants annually.
- **Cost-Benefit:** \$2.8 billion in net benefits by 2033.

		TECHNOLOGY ADVANCEMENT	
		LOW	HIGH
POLICY SUPPORT	LOW	Scenario 1: Low policy, Low Technology	Scenario 2: Low Policy, High Technology
	HIGH	Scenario 3: High Policy, Low Technology	Scenario 4: High Policy, High Technology

# Alt Fuel Corridor Implementation

## Incentives:

- Alternative Fuels Incentive Act – (Established 1992)
  - AFIG Competitive Grants
    - 2X per year- supports refueling infrastructure, alt fuel vehicles, and innovative technology
    - Scoring considerations for projects along corridors
  - **AFIG FAST Act Corridor Infrastructure Grant**
    - **1X per year – supports refueling on the corridors**
  - Alternative Fuel Vehicle Rebate
    - Ongoing – supports individuals purchasing vehicles
- VW – Driving PA Forward Programs
  - **DC Fast Charging and Hydrogen Refueling**
    - **2X per year – Supports infrastructure on corridors, community hubs, and destinations**
  - On-Road Vehicle Rebates
    - Ongoing- can support alt fuel vehicles
  - Class 8 Truck and Transit
    - 1X per year – can support alt fuel vehicles

# Incentives: Details

## **AFIG FAST Act Corridor Infrastructure Grant**

- \$1 million in grants available for public-use electric, hydrogen, propane, and compressed natural gas refueling infrastructure.
- Utilizing the requirements from FHWA designation process to create the grant solicitation requirements
- Designed to support and encourage installation of alternative fuel infrastructure along PA Interstate Highway Corridors.
- Focused on specific sections of interstates located in Pennsylvania designated “Signage Ready” and “Signage Pending”

# Incentives: Details

## DC Fast Charging and Hydrogen Grant Program

- Competitive grants for publicly accessible:
  - DC Fast Charging
  - DC Fast Charging combined with Level 2
  - Hydrogen Fuel Cell Fueling
- Project categories:
  - Transportation corridors
  - Community hubs
  - Destination locations
- DCFC projects: Grants available up to 75% of total project cost
- HFCF projects: Grants available up to 33% of total project cost

# Alt Fuel Corridor Implementation

## Promotion

- NEED: Working through implementation of signage
- NEED: Marketing through various channels; social media, paid and earned advertising, public-private partnerships, educating local gov'ts and organizations, etc.

# Alt Fuel Corridor Implementation

## Multi-state collaboration

- Transportation & Climate Initiative through Georgetown Climate Center
- NESCAUMs work on the Northeast region strategy for Electric Vehicle Charging Infrastructure
- NEED: National and regional coordination and marketing implementation of alt fuel corridors (perhaps a branded program)



## Questions?

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