DVRPC GOODS MOVEMENT TASK FORCE

PENNSYLVANIA TAC
TRUCK PARKING STUDY

JANUARY 18, 2024

pennsylvania
DEPARTMENT OF TRANSPORTATION

PENNDOT, TAC, AND TRUCK PARKING: 2007 TO THE PRESENT

AN HISTORICAL OVERVIEW

REBECCA OYLER, PA MOTOR TRUCK ASSOCIATION

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BACKGROUND: FEDERAL

- 2000 – NTSB Highway Rest Areas report
- 2002-05 – FMCSA Hours of Service (HOS) rule changes
- Late 2000s – State DOTs and MPOs evaluate overflowing rest areas and ramp/shoulder parking
- 2012 – Jason's Law (MAP-21 Section 1401)
- 2015 – Jason's Law initial survey completed – National Coalition on Truck Parking (NCTP) established
- 2017 – FMCSA electronic logging device (ELD) mandate
- 2018 – Jason's Law survey update
- 2021 – Infrastructure Bill: New requirements to incorporate truck parking in statewide freight plans

USDOT SAFETY PRIORITIES

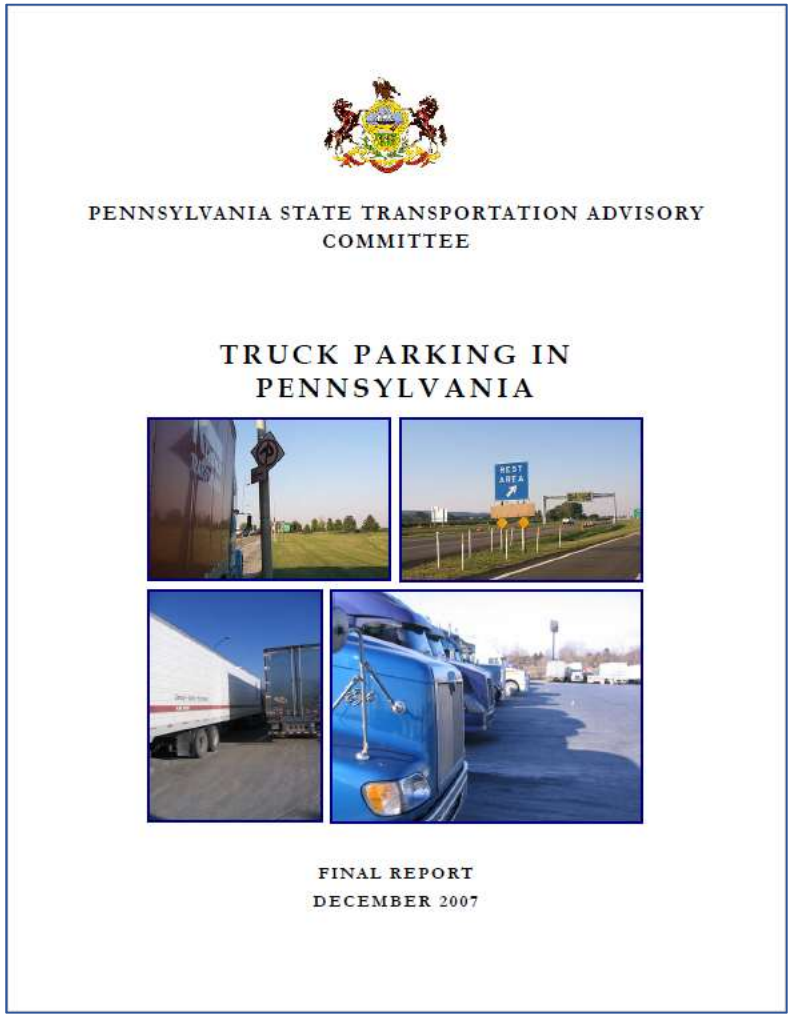
1. The risks associated with drowsy drivers operating heavy vehicles (trucks and buses) on the highway system – focus of FMCSA hours of service rules
2. The risk of having trucks parked on highway shoulders and interchange ramps where they are fixed objects within an area designed to be a clear zone – one of the primary PennDOT concerns
3. The safety of the truck driver and the security of the cargo while the truck is parked for extended rest periods – focus of Jason's Law

PA MILESTONES

- 2007 – TAC Truck Parking Study
- 2013 – PA Turnpike Mainline Study
- 2017 – PennDOT Safety Rest Area Transition Report
- 2018 – Eastern Pennsylvania Freight Summit
- 2018 – PennDOT P3 RFI for Truck Parking
- 2019-21 – MPO & DOT Truck Parking Roundtables (SPC, NEPA, LVPC, HATS + NJDOT)
- 2019-22 – Update of 2007 Data, Policy Development & Land Use Case Study
- 2022 – Presentations to CVSS, MCSAC, Penn State TESC & Northeast Commercial Vehicle Safety Symposium

TAC STUDY (2007)

- Truck parking issues and trends
- Locations of highest parking demand
- Options for addressing future needs
- Focus on adequate and safe truck parking
- 2002 FHWA methodology



2007-2020/23 COMPARISON

- Direct comparisons for statewide measures not totally accurate due to changes in data, different sources used to identify parking facilities, etc.
- Targeted updates of 2020 data completed in 2023.
- **2020-23 information is more accurate and complete.**

Truck Parking Characteristics	**Data Year**		
	2007	*2020*	*2023*
Total Parking Facilities	203	286	290
Total Truck Parking Spaces	11,220	11,630	12,010
Trucks Parked in Facilities	10,170	12,155	12,420
Utilization Pct. (Overall)	91%	105%	103%
Trucks Parked on Ramps/Shoulders	1,080	980	980

PUBLIC SECTOR ROLE

- Historical context related to the functions of the Interstate Highway System
- PennDOT/DGS is the facility “owner” for roadside rest areas; ideal focus on short-term parking.
- Preference for off-highway facilities for long-term parking; PennDOT can be a facilitator and work with municipal partners and private industry develop new capacity where needed.
- Restrictions on commercialization limit a DOT’s ability to meet driver needs with on-site amenities and services.
- Ongoing reporting of parking metrics (IIJA Section 21104).

2045 PA FREIGHT PLAN

Goal B (Mobility), Objective B-3 … *Pursue opportunities with public and private stakeholders to expand truck parking capacity.*

Goal A (Land Use), Objective A-3 … *Collaborate with other organizations (DCED, PSATS, PSAB, etc.) to assemble recommended industrial site development standards and ordinances.*

ANALYTICAL APPROACH

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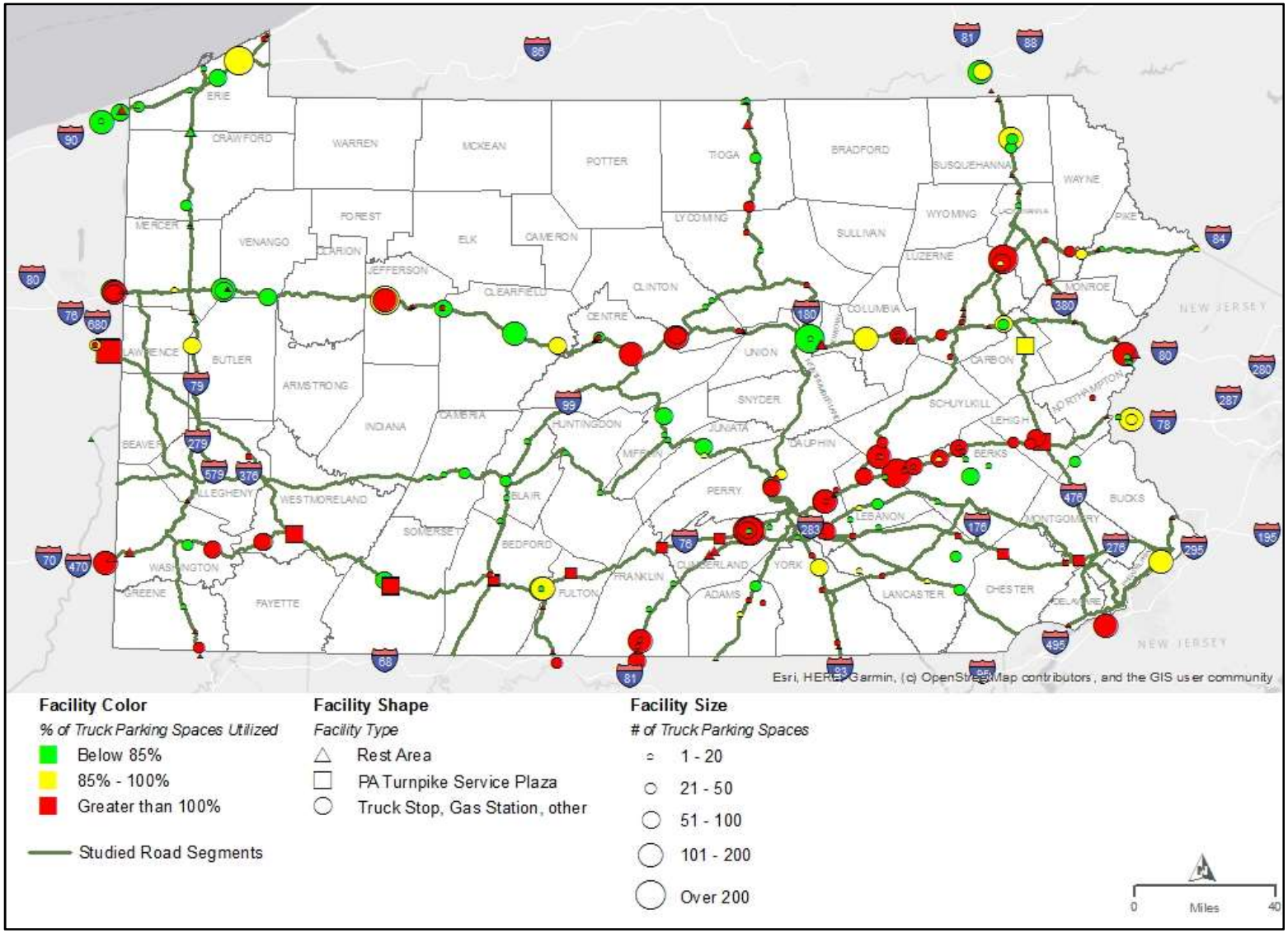
TWO-STEP PROCESS

1. Prioritize **highway corridors** of highest demand in Pennsylvania, using tiered approach:
    - **links** (based on PennDOT mapping)
    - **segments** (combinations of links)
    - **corridors** (combinations of segments)
2. Identify **locations** where existing truck parking facilities can be expanded or where new facilities can be developed

2020 PARKING FACILITIES



2020 RAMPS/SHOULDERS

CORRIDOR PRIORITIZATION

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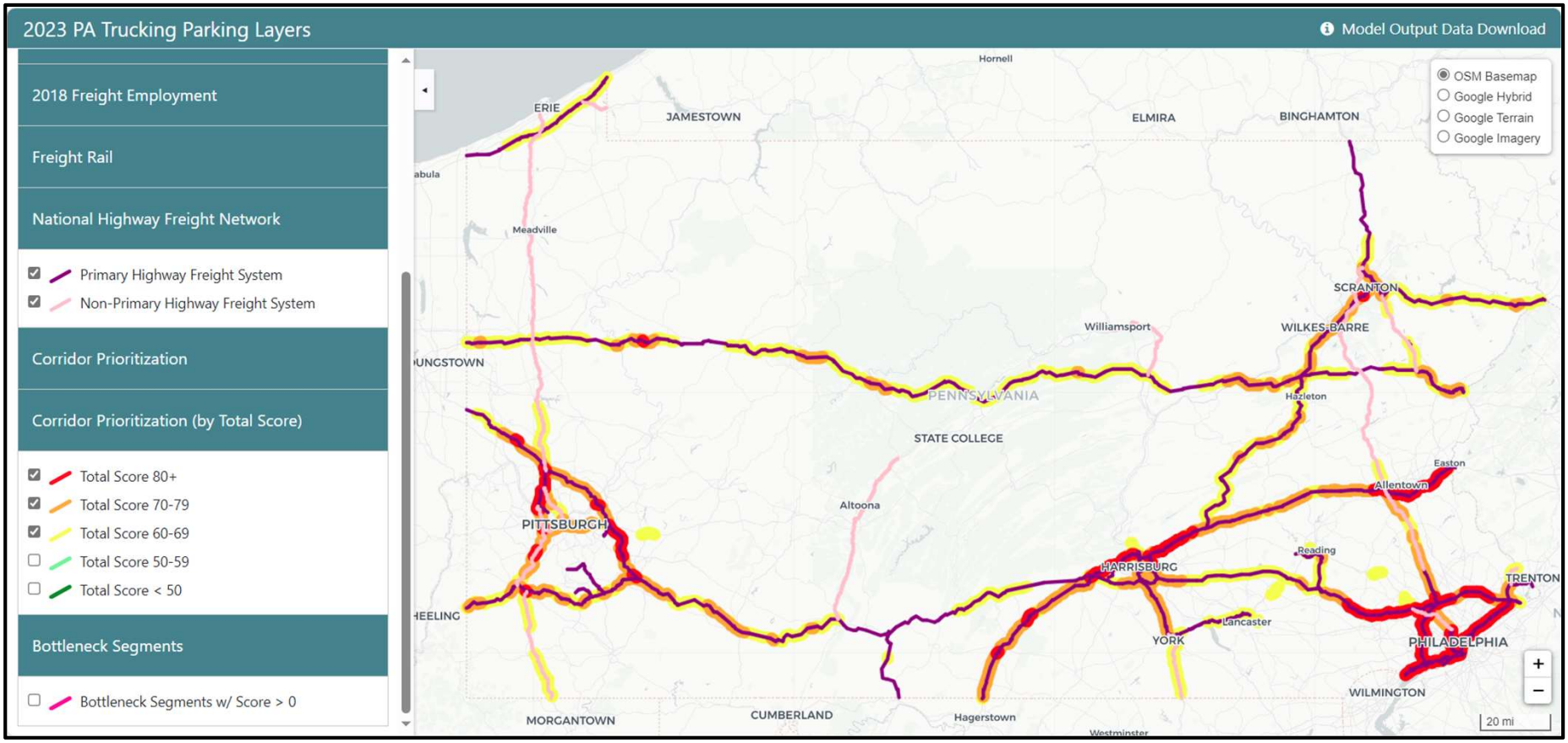
CORRIDOR/LINK CRITERIA

- Designated Networks (NHFN, NHS)
- ADTT (Traffic)
- Regional Truck Parking Availability
- Demand/Supply Gap
- Proximity to Major Freight Hubs
- Freight-Related Employment
- Shoulder/Ramp Parking Problem Locations
- Truck Crash Rates + Fatigue as Factor (from PCIT)
- Truck Bottlenecks
- Road Closure Time by Segment (from RCRS)

PRIORITY GRADIENTS



TIER I CORRIDORS

- I-76 from US-1 to I-95 in Philadelphia
- I-78 from Exit 49 (PA-100) to PA-NJ State Line
- I-79 from Ohio River to Exit 76 (PA Turnpike)
- I-81 from Carlisle to Susquehanna River
- I-81 from I-83 to I-78
- I-83 from US-322 to I-81
- I-95 in Philadelphia Area
- PA Turnpike (I-76) from Exit 57 (US-22) to Exit 75 (I-70)
- PA Tpk (I-76) from Exit 298 (I-176) to Norristown (I-476)
- PA Turnpike (I-276) from Valley Forge (I-76) to I-95

POTENTIAL LOCATIONS

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LOCATION CRITERIA

Table 5: Potential Truck Parking Site Evaluation Criteria

Evaluation Criteria	Description
Parcel Size	10 acres or more (acreage)
Designated Networks	5 miles or less from a prioritized highway corridor (NHFN, NHS) (Y/N)
Compatible Zoning	Zoned industrial or commercial (Y/N)
Industrial Park	Located in an existing or planned industrial park (Y/N)
Existing Truck Parking Facilities	Located adjacent to an existing truck parking facility, expansion of existing, or under construction (N/Existing/Expansion/Under Construction)
Brownfield	Brownfield redevelopment opportunity (Y/N)
Community Impact	Location is in proximity to local schools, daycare, neighborhoods, or environmental justice communities (per EPA's EJ Screen) (Y/N)
Access via CUFC/CRFC	Location is accessible to NHFN/NHS via CUFC/CRFC (Y/N)
Property Ownership	Property ownership (Public/Private)

FACILITY TYPES

Table 2: Types and Uses of Truck Parking Facilities

	Facility Type			
Parking Activity	**Rest Area**	**Truck Stop**	**Industrial Park***	**Emergency Parking Site**
Long-Term Rest	X	✓	OK	X
Short-Term Parking	✓	OK	OK	X
Staging	OK	OK	✓	X
Emergency Operations	OK	✓	OK	✓

✓ = Ideally suited for this type of parking activity

X = Not suited for this type of parking activity

OK = Not ideally suited, but can be used if conditions allow

*Industrial parks are ideally suited for parking activity associated with local deliveries.

Source: PennDOT Center for Program Development and Management

POTENTIAL LOCATIONS

Tier 1 Corridor	Potential Locations	Comments
I-76 from US 1 to I-95 in Philadelphia	• Incorporate truck parking and staging facility into the Bellwether District redevelopment. • Heavily developed corridor with limited options outside the Bellwether District.	• Hilco Development is the project developer. Buildings 15 and 16 are slated for delivery in 2025. • Additional options may exist in adjacent areas on the south side of PA 291 and north of Passyunk Avenue.
I-78 from Exit 49 (PA 100) to PA-NJ State Line	• Location of Arcadia West and Arcadia East Industrial Parks at Exit 45 is just outside this corridor but would help meet this need. • Redevelopment opportunities for older industrial sites along the PA 100 corridor, primarily south of I-78. • Agricultural lands along Old US 22 between Adams Road and PA 100 in Fogelsville.	• Area along Old US 22 on the south side of I-78 could also be feasible, especially if done in conjunction with an interchange improvement project at Exit 45. • Industrial development along the west end of this corridor is a major driver of freight activity. New parking capacity would address staging needs for these sites. • Coordinate with LVPC and NJTPA for options across state line in New Jersey.
I-79 from Ohio River to Exit 76 (Pennsylvania Turnpike)	• US 19 north of PA Turnpike from Cranberry Township to Zelienople is just north of this corridor but may have redevelopment opportunities at locations currently zoned for commercial or industrial use.	• Development opportunities on large parcels in this corridor are limited by the terrain and by existing development. • Consider conducting a full inventory of parcels zoned for industrial/commercial use or designated for land uses compatible with truck parking and associated commercial development.
I-81 from Carlisle to Susquehanna River	• Expansion of existing truck stops along US 11 between I-81 and PA Turnpike would meet this need. • Explore options for new truck parking facility with direct access to/from I-81 in rural areas between Carlisle and Rich Valley Road overpass.	• Existing development in Cumberland County limits options closer to the Susquehanna River. • Redevelopment opportunities may exist for older commercial properties along US 11 in vicinity of existing truck stops.
I-81 from I-83 to I-78	• Expansion of Grantville Rest Areas on I-81 (East Hanover Township) • Aging and/or under-utilized sites along US 22 corridor between PA 39 in Dauphin County and PA 72 in Lebanon County. • New parking facility in industrial area around I-78/I-81 interchange.	• The Grantville rest areas were recently rehabilitated (2020); surrounding area is rural. There is more space for expansion on north (southbound) side of I-81. • Zoning may be compatible along much of US 22. Access to I-81 is limited east of PA 924 (Exit 85 on I-81). Overhead bridge clearance constraint at PA 72. • Expansion or new remote parking area associated with Love's Travel Plaza in Lickdale is a possibility. Would support staging for nearby industrial sites in Bordnersville area.

POTENTIAL LOCATIONS

Tier 1 Corridor	Potential Locations	Comments
I-83 from US 322 to I-81	• N/A – This area is heavily developed already, with limited opportunities for developing new truck parking.	• Look to address this need in conjunction with recommendations for corridor along I-81 between I-83 and I-78 (see above). • I-83 between York and US 322 is a Tier II corridor; new parking capacity there would help meet this need.
I-95 in the Philadelphia Area from the Delaware state line to I-276	• Bellwether District location described previously for I-76 would also serve this corridor. • Keystone Trade Center (KTC) in Falls Township (Bucks County). • Redevelopment opportunities along State Road east of I-95, accessible via Exit 37.	• KTC under development by NorthPointe Development at former U.S. Steel Fairless Works site. • Minimal community impacts due to location on large industrial site in low-lying area surrounded by water. • A major truck parking facility at KTC would meet needs of I-95 corridor and staging for new surrounding industrial development. • Coordinate with DVRPC and NJDOT for options across state line in New Jersey.
Pennsylvania Turnpike (I-76) from Exit 57 (US 22) to Exit 75 (I-70)	• Industrial sites along North Center Drive in New Stanton. • Redevelopment opportunities along US 119 in Youngwood.	• No PA Turnpike service plazas in this corridor; interchange spacing limits opportunities for access to potential off-highway facilities. • Heavy existing development limits opportunities at north (US 22) and central (US 30) areas of this corridor.
Pennsylvania Turnpike (I-76) from Exit 298 (I-176) to Norristown (I-476)	• Expansion of Peter J. Camiel Service Plaza (westbound). • Expansion of Valley Forge Service Plaza (eastbound). • Potential redevelopment opportunities in existing commercial/industrial areas of Ernest and Plymouth Meeting.	• Existing PA Turnpike widening project currently underway adjacent to Valley Forge Service Plaza. Options for expansion will depend on final configuration of roadway and ramps. • Off-highway locations south of Norristown would serve as a hub for multiple Interstates (I-76, I-476, I-276) as well as staging for local deliveries.
Pennsylvania Turnpike (I-276) from Valley Forge (I-76) to I-95	• Keystone Trade Center (KTC) location described under I-95 corridor would also serve this corridor indirectly. • Potential industrial redevelopment opportunities in Hatboro-Warminster area between PA 263 and PA 232.	• Parking capacity was lost in this corridor when the Neshaminy Service Plazas (eastbound/westbound) were closed as part of the US 1 interchange project. • Limited opportunities for new large development sites in this corridor due to existing residential and commercial development.

RECOMMENDATIONS & IMPLEMENTATION

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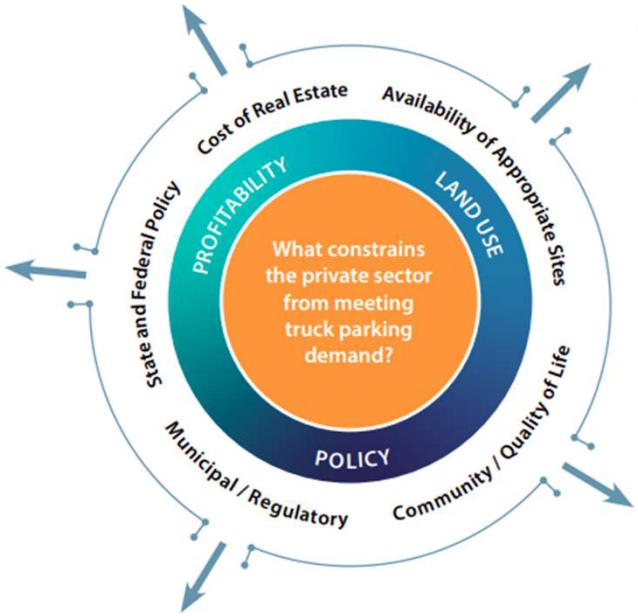
FRAMEWORK

Cost of Real Estate

1. Reevaluate P3 opportunities.
2. Develop statewide incentives for providing truck parking.
3. Promote and pursue federal discretionary grants for truck parking.

Availability of Appropriate Sites

4. Repurpose select state-owned surplus properties.
5. Identify potential sites at a regional level using the TAC methodology.
6. Identify opportunities for shared parking and staging areas for multiple industrial sites.
7. Integrate truck parking with economic development projects.



State and Federal Policy

14. Promote truck parking in national and regional forums.
15. Undertake collaborative problem-solving with adjoining states.
16. Develop a Pennsylvania Truck Parking Handbook.
17. Integrate truck parking into regional planning.

Community / Quality of Life Concerns

8. Implement community compatibility best practices.
9. Designate emergency truck parking in appropriate areas.
10. Educate residents about the importance of truck parking.

Municipal / Regulatory

11. Update land use regulations (zoning and subdivision/land development) to include truck parking.
12. Address truck parking in county and local comprehensive plans.
13. Foster municipal involvement.

Institutional Initiatives

18. Designate a PennDOT Executive Sponsor for Truck Parking.
19. Establish an Implementation Task Force.

RECOMMENDATIONS (1/3)

Cost of Real Estate

- Reevaluate P3 opportunities
- Develop statewide incentives for providing truck parking
- Promote/pursue federal discretionary grants

Availability of Appropriate Sites

- Repurpose select state-owned surplus properties
- Identify sites at a regional level using TAC methodology
- Identify opportunities for shared parking and staging areas for multiple industrial sites
- Integrate truck parking in economic development projects

RECOMMENDATIONS (2/3)

Community/Quality of Life Concerns

- Implement community compatibility best practices
- Designate emergency truck parking in appropriate areas
- Educate residents about the importance of truck parking

Municipal/Regulatory

- Update land use regulations to include truck parking
- Address truck parking in county and local comprehensive plans
- Foster municipal involvement

RECOMMENDATIONS (3/3)

State & Federal Policy

- Promote truck parking in national and regional forums
- Undertake collaborative problem-solving efforts with adjoining states
- Develop a Pennsylvania Truck Parking Handbook
- Integrate truck parking into regional planning

Institutional Initiatives

- Designate a PennDOT Executive Sponsor for Truck Parking
- Establish an implementation Task Force

PARTNERSHIPS

PennDOT Central & District Offices	P3 Board	State Planning Board	MPOs, RPOs and LDDs	DCED / Governor's Action Team
Department of General Services	Pennsylvania Turnpike Commission	Local Governments	County Government	Trucking Industry
Real Estate Developers	Law Enforcement	Economic Development Organizations	Emergency Management	Local Government Associations

GMTF DISCUSSION

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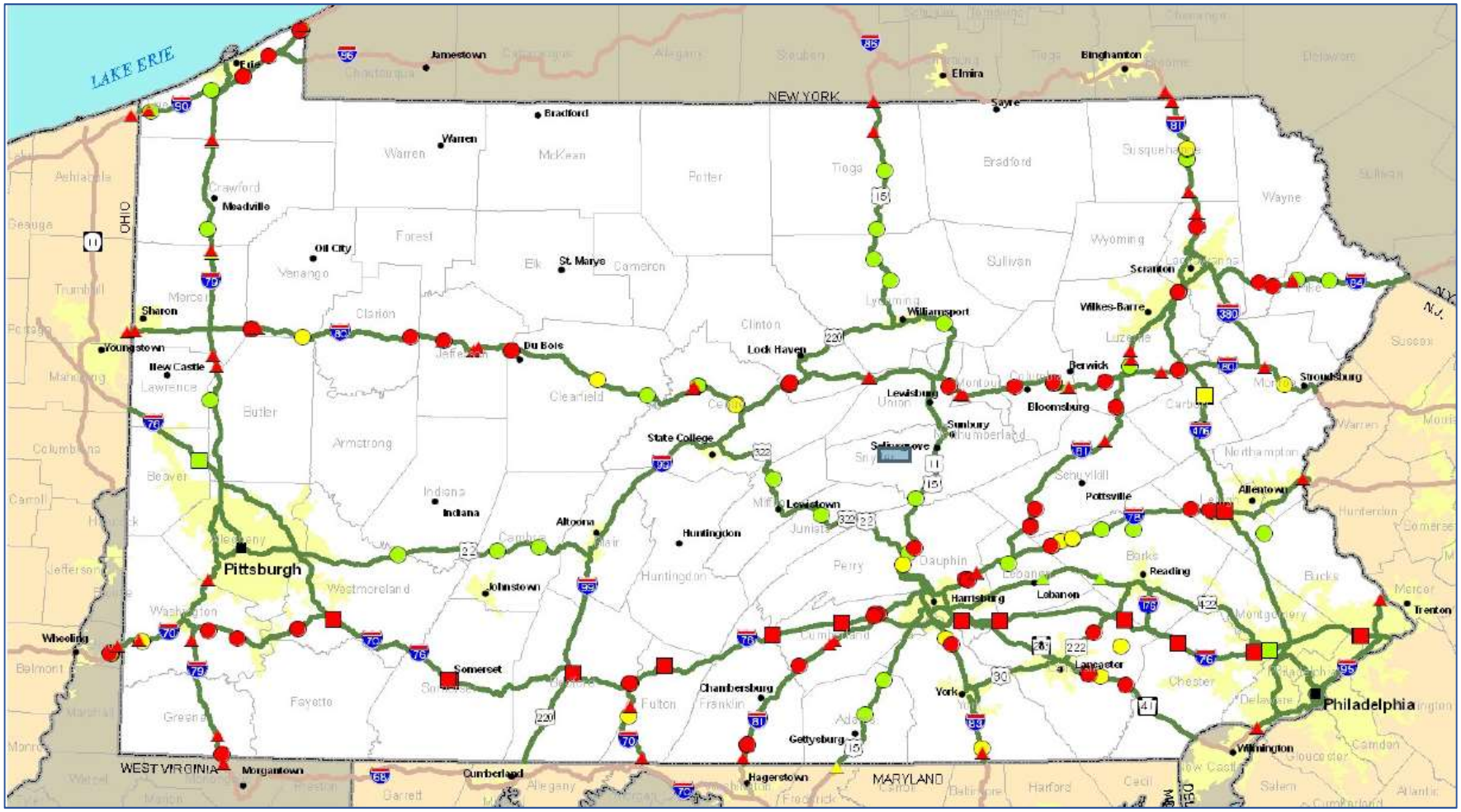
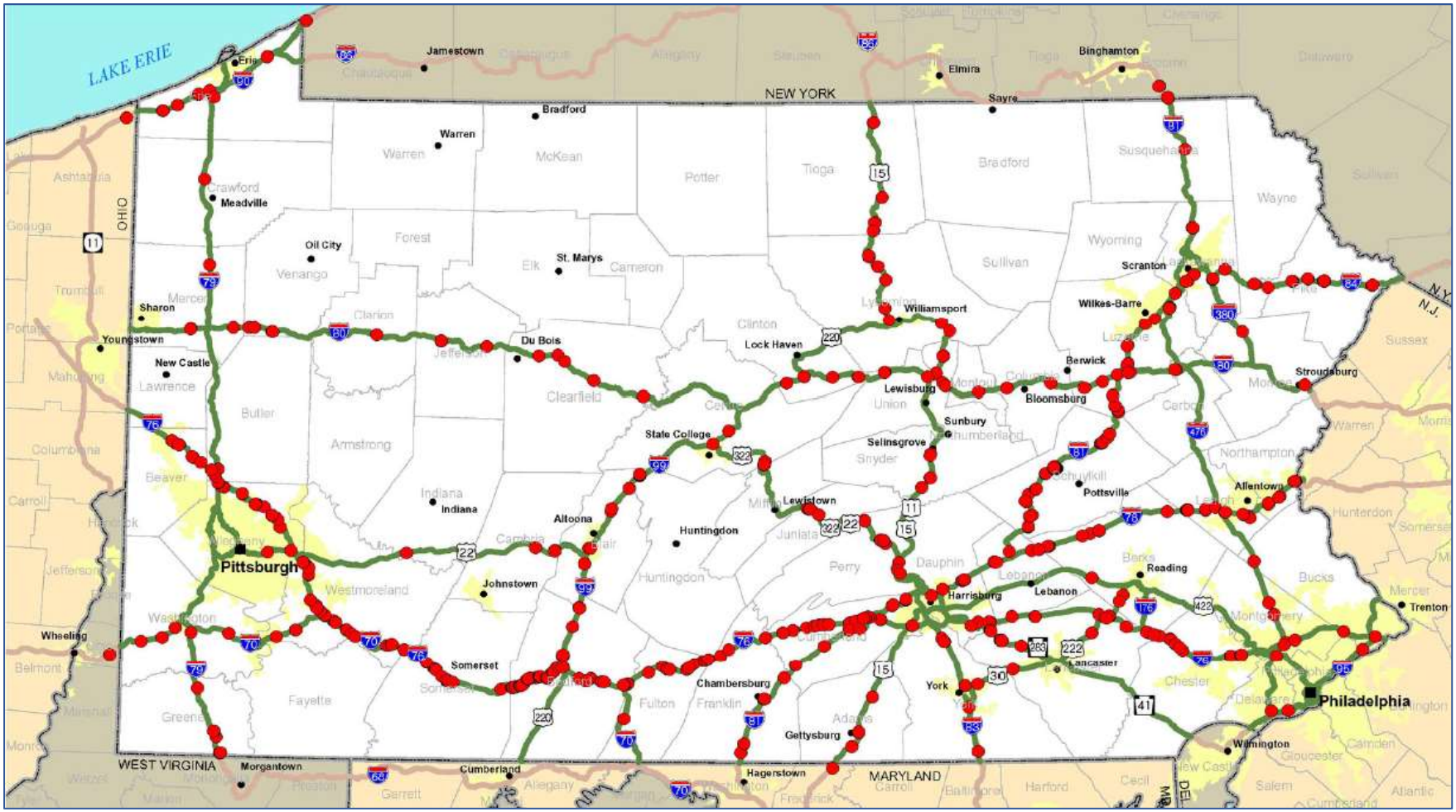
DISCUSSION…

2007 PARKING FACILITIES



2007 RAMPS/SHOULDERS



CORRIDOR CRITERIA 1-3

1A	Designated Network (NHFN)	10	NHFN: Primary	10
			NHFN: Non-Primary	5
			NHFN: CRFC/CUFC	2
			No NHFN Designation	0
1B	Designated Network (NHS)	10	NHS: Interstate	10
			NHS: Other	5
			NHS: STRAHNET (Only)	5
			No NHS Designation	0
2	AADTT	10	Quintile #5 (Top)	10
			Quintile #4	8
			Quintile #3	6
			Quintile #2	4
			Quintile #1 (Bottom)	2
			Fewer than 100 trucks/day	0
3	Existing Spaces within 20 Miles	10	0-100	10
			101-200	8
			201-300	6
			301-400	4
			401-500	2
			500+	0

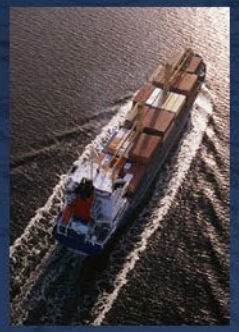
CORRIDOR CRITERIA 4-6

4	Demand/Supply Gap (Available Spaces within 20 Miles)	10	<0 (overloaded facilities)	10
			0-25	8
			26-50	6
			51-100	4
			101-150	2
			150+	0
5	Proximity to Major Freight Hubs (Port/Rail/Air Terminals)	5	Hub within 15 Miles - Y	5
			Hub within 15 Miles - N	0
6A	Manufacturing Employment within 10 Miles	5	Quintile #5 (Top)	5
			Quintile #4	4
			Quintile #3	3
			Quintile #2	2
			Quintile #1 (Bottom)	1
			Fewer than 100	0
6B	Warehousing/Distrib. Employment within 10 Miles	5	Quintile #5 (Top)	5
			Quintile #4	4
			Quintile #3	3
			Quintile #2	2
			Quintile #1 (Bottom)	1
			Fewer than 25	0

CORRIDOR CRITERIA 7-10

7	Shoulder/Ramp Parking per Mile (see FMP Figure 6)	10	0.6059+	10
			0.3614-0.6058	8
			0.1790-0.3613	6
			0.05724-0.1789	4
			0.001-0.05723	2
			0.000	0
8	Truck Crash Rates per Mile (use PICT total with Heavy Truck and Fatigue as contributing factors)	10	Quintile #5 (Top)	10
			Quintile #4	8
			Quintile #3	6
			Quintile #2	4
			Quintile #1 (Bottom)	2
			No crashes	0
9	Top 250 Truck Bottlenecks	5	Bottlenecks #1-50	5
			Bottlenecks #51-100	4
			Bottlenecks #100-150	3
			Bottlenecks #150-200	2
			Bottlenecks #201-250	1
			Not in Top 250	0
10	Road Closures/Restrictions - from RCRS	10	Quintile #5 (Top)	10
			Quintile #4	8
			Quintile #3	6
			Quintile #2	4
			Quintile #1 (Bottom)	2
			No closures	0





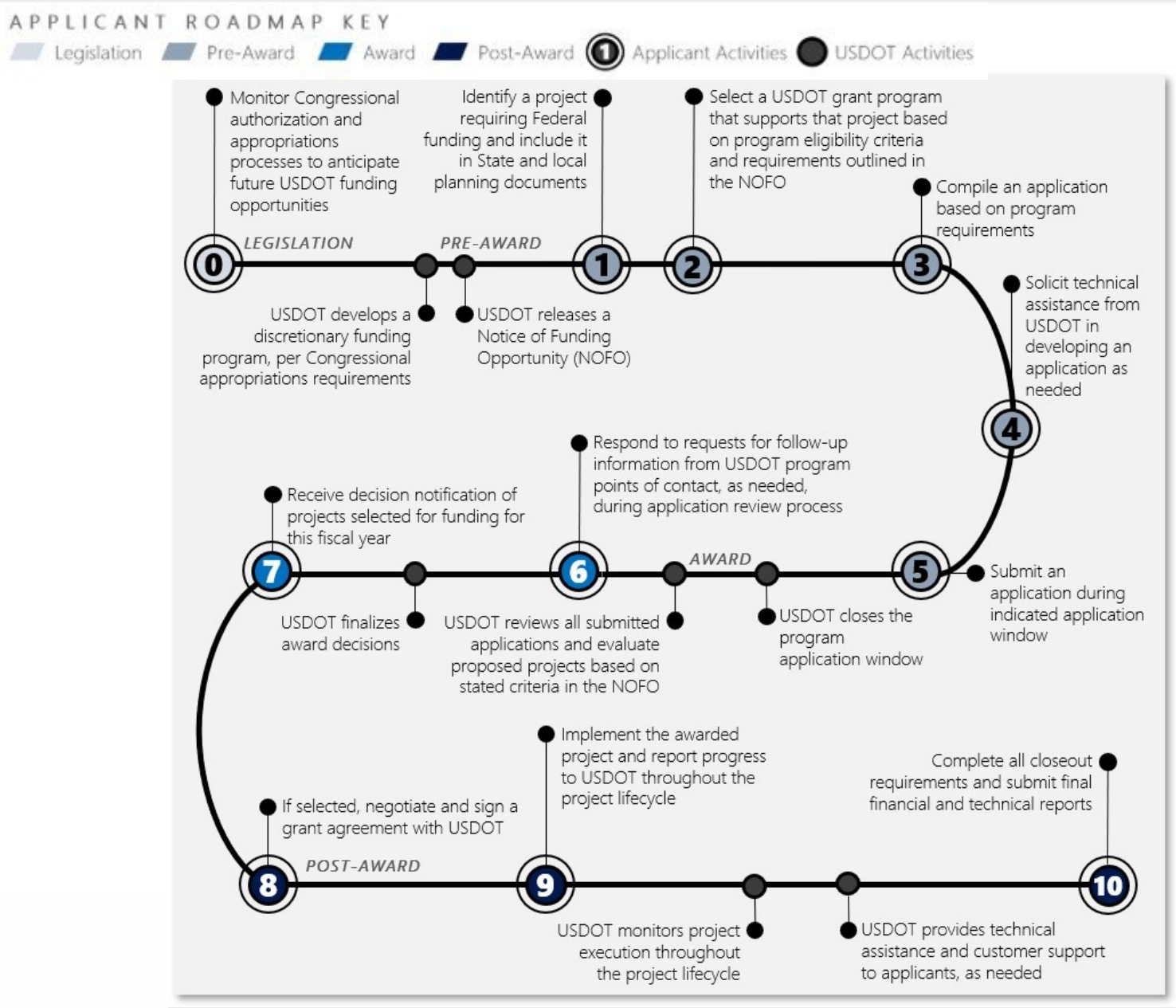

Maritime Administration (MARAD)

January 18, 2024

1200 New Jersey Ave., SE | Washington | DC 20590
www.dot.gov

MARAD
U.S. MARITIME ADMINISTRATION

Applicant Roadmap



General Grant Rules of Thumb

MARAD

- **For most USDOT Funding Opportunities, these are Eligible Applicants**
  - State and/or local governments (cities/counties)
  - MPOs/Planning Councils
  - Port authorities;
  - Tribes
  - A collaboration of such entities.

  ***Private sector can receive grants**, with a public sponsor!*
- **Eligible Projects – general list**
  - Infrastructure inside & outside of the terminal gates that improve efficiency of freight
  - Loading an unloading of goods; Movement of goods into, out of, around, or within a port, such as for highway or rail infrastructure, intermodal facilities, freight intelligent transportation systems, and digital infrastructure systems; Operational improvements, including projects to improve port resilience; or Environmental and emissions mitigation measures
- **Match/Federal Share -** Most grants require a 20% match from the applicant (80% federal share) – consider putting in more $ if you can
- **NEPA –** Must be complete before the Grant Agreement is signed
- **Buy America/Buy American –** Required for all grants
- **Draft Schedule for 2024 NOFOs**

USDOT Grants: RAISE and PIDP

RAISE Grants - Due February 28, 2024

The U.S. Department of Transportation has published a Notice of Funding Opportunity (NOFO) for $1.5 billion in grant funding through the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) discretionary grant program for 2024. The popular program helps communities around the country carry out projects with significant local or regional impact.

- Press Release
- Awards from 2023
- Notice of Funding Opportunity
- RAISE Program Website
- Webinars

How to Draft Merit Criteria Narrative for a RAISE Application
Register here. January 18, 2024 from 2:00-3:00 PM ET

PIDP Grants - Due April 30, 2024

Funds for FY 2024 PIDP grants will be awarded on a competitive basis to assist in funding eligible projects for the purpose of improving the safety, efficiency, or reliability of the movement of goods through ports and intermodal connections to ports. This notice announces the availability of up to $450,000,000 in funding for grants under this program.

Here is the grant info from 2023, which will be updated with the 2024 grant information soon:

- Homepage
- How to Apply
- Notice of Funding Opportunity
- Webinars from 2023 (*the 2024 webinars will be scheduled*)
- Frequently Asked Questions
- Prior applicant excel file

USDOT Grants: CRISI and more

Rail Grants/CRISI Grants – Please keep an eye out.--there will be a combined FY23-24 CRISI NOFO released in the next month or so.

Upcoming NOFOs will be:

- Small Shipyard Grants https://www.maritime.dot.gov/grants-finances/small-shipyard-grants
- US Marine Highway United States Marine Highway Program | MARAD (dot.gov)
- Port Security Grants https://www.fema.gov/grants/preparedness/port-security
- MEGA/INFRA/RURAL https://www.transportation.gov/grants/mega-grant-program

Use the USDOT Tools For Applications (recorded webinars)

MARAD

Benefit Cost Analysis for DOT Discretionary Grant Applications

This webinar includes presentations on several new resources to help grantees develop more successful applications for discretionary grant programs, including a new DOT Benefit-Cost Analysis Template and newly updated Rural Grant Application Toolkit designed specifically to help rural, Tribal, and smaller communities seeking to navigate the growing menu of federal transportation grant programs and develop competitive applications. To learn more about Benefit-Cost Analysis, view the Navigator's Benefit-Cost analysis informational page and DOT's Benefit-Cost Analysis Guidance for Discretionary Grant Programs.

- Watch the 12/5/23 webinar recording; Passcode: YZ79&@Cc; View the 12/5/23 presentation slides.

Utilizing DOT Data and Mapping Tools for Stronger Grant Applications

This webinar highlighted new features of the DOT Navigator, including a new webpage on Data and Mapping Tools, and included presentations on the Screening Tool for Equity Analysis of Projects (STEAP) and the Equitable Transportation Community (ETC) Explorer. It also provided tips for DOT grant competitiveness and featured a live discussion panel of DOT discretionary grant experts.

- Watch the 9/19/23 webinar recording; Passcode: &7XZ6JAs; View the 9/19/23 presentation slides.

Use the USDOT Tools For Applications (recorded webinars)

MARAD

Identifying USDOT Discretionary Grant Opportunities

This webinar showcased the USDOT Discretionary Grants Dashboard, a tool that makes it easier to search for and find grant opportunities based on project type, organization type, and other considerations. The webinar also highlighted the Wildlife Crossings, PROTECT, and Charging and Fueling Infrastructure programs, and other new resources available on the DOT Navigator.

- Watch the 5/22/23 webinar recording.; Passcode: w0=B$P9$; View the 5/22/23 presentation slides.

Preparing for Upcoming USDOT Discretionary Grant Opportunities

This webinar highlighted resources available to help potential grant applicants navigate USDOT funding opportunities. The session demonstrated tools available on the DOT Navigator, including the funding opportunity calendar, tools for identifying Federal disadvantaged community areas, and which programs provide non-Federal match flexibility, and spotlighted several USDOT funding opportunities that are currently accepting applications to expand transportation opportunities to urban, rural, and Tribal communities.

- Watch the 2/8/23 webinar recording; Passcode: cvU1L&h1; View the 2/8/23 presentation slides.

Example of a RAISE Planning Grant – 2021

MARAD

Designing Multimodal Working Waterfronts

Middle Peninsula Planning District Commission

Essex, Gloucester, King & Queen, King William, Mathews, and Middlesex Counties, Virginia

Grant Funding: $2,018,476

Estimated Total Project Costs: $2,018,476

Description:
This project will conduct a region-wide planning project to address the needs of commercial seafood and marine industries at publicly-owned, rural working waterfronts in Virginia's Middle Peninsula region. The project includes a condition assessment at each of the 60 public wharves, landings, and harbors in the region; a needs assessment for the current and future needs of the commercial seafoods and marine industries, and the development of implementation strategies to address identified infrastructure needs.

Benefits:
The project generates state of good repair benefits by conducting a needs assessment to identify unsafe and neglected facilities at public wharves, landings, and harbors in the Middle Peninsula region to identify needed improvements. The project would develop plans to revitalize infrastructure needed to connect marine resources to inland markets with the intention of growing local and regional maritime-based economies.

Example of Offshore Wind PIDP Grant – 2021

MARAD

Portsmouth Marine Terminal Offshore Wind Development (awarded: $20,000,000)

The project will fund improvements to the Portsmouth Marine Terminal to enable it to serve as a staging area in support of offshore wind projects. The grant will fund construction of wind turbine generator staging area in the uplands adjacent to one of the terminal's wharves and a second area where monopiles and other project components will be stored.

Example of Marine Highway Program Grant– 2021

MARAD

Cape May – Lewes Ferry (awarded $600,000)

Project sponsor Delaware River and Bay Authority.

This grant will support a comprehensive ferry master plan to develop a new, modern, efficient, and cleaner ferryboat design. The master plan will serve as a comprehensive analysis of operations and service needs, and help determine the types, sizes, and number of ferries that are needed in the future.

With a nationwide push towards a low carbon economy transition, the ferry system is capable of incorporating technologies within the vessels that can benefit customers as well as the environment, including electric vehicle charging stations.

Example of Marine Highway Program Grant– 2020

MARAD

Wallops Island M-95 Intermodal Barge Service (awarded $96,425)

Sponsored by the Virginia Commercial Space Flight Authority, the grant will be used to design a new trestle and combination dock/ramp to support the loading and unloading of barges and research vessels at the Mid-Atlantic Regional Spaceport (MARS).

The project will improve public safety, generate jobs in a rural area, and increase the site capabilities of the Mid-Atlantic Regional Spaceport.

Example of Marine Highway Program Grant– 2021

MARAD

James River Container Expansion Project (awarded $3,048,363 in *2021*)

Sponsored by the Virginia Port Authority, the grant will be used to improve lighting within the perimeter of the Richmond Marine Terminal (RMT) through the installation of high mast light poles with Light Emitting Diode (LED) fixtures and the retrofitting of existing light poles and LED fixtures.

Expanding the operational capacity at the terminal with improved lighting within the facility will allow for barge operations beyond daylight hours.

**Ever since the Marine Highway Program was initiated, the James River Barge has been awarded 7 AMH grants totaling over $10 million

What's possible?

Route Sponsors – Possibly Designate Delaware Bay?

Note: Routes as shown are diagrammatic and may not depict all waterways and port connectors that are considered to be part of the U.S. Marine Highway System.

A new route for the Delaware Bay?

- Grant applicants currently have to go to the M-95 Route Sponsor to pursue a grant.

- The sponsor of the M-95 route is the Eastern Transportation Coalition, formerly known as the I-95 Corridor Coalition

- Process is easy – MARAD will walk you through the paperwork

Route Sponsors – Benefits

MARAD

- Benefits for the region – take control & be strategic for *who* and *when* applicants can apply for the US Marine Highway Program Grants in the area
- Public benefits include:
  - Creating and sustaining jobs in U.S. vessels, ports and shipyards.
  - Relieving landside congestion.
  - Reducing maintenance costs and improving the U.S. transportation system's overall state of repair (wear and tear on roads and bridges).
  - Driving the mandatory use of emerging engine technologies.
  - Improving U.S. economic competitiveness by adding new cost-effective freight and passenger transportation capacities.
  - Improving the environmental sustainability of the U.S. transportation system by using less energy and reducing air emissions (such as greenhouse gases) per passenger or ton-mile of freight moved.
  - Improving public safety and security by providing alternatives for moving hazardous materials outside heavily populated areas.
  - Improving transportation system resiliency and redundancy by providing transportation alternatives during times of disaster or national emergency.
  - Improving national security by adding to the nation's strategic sealift resources.

Contact Info

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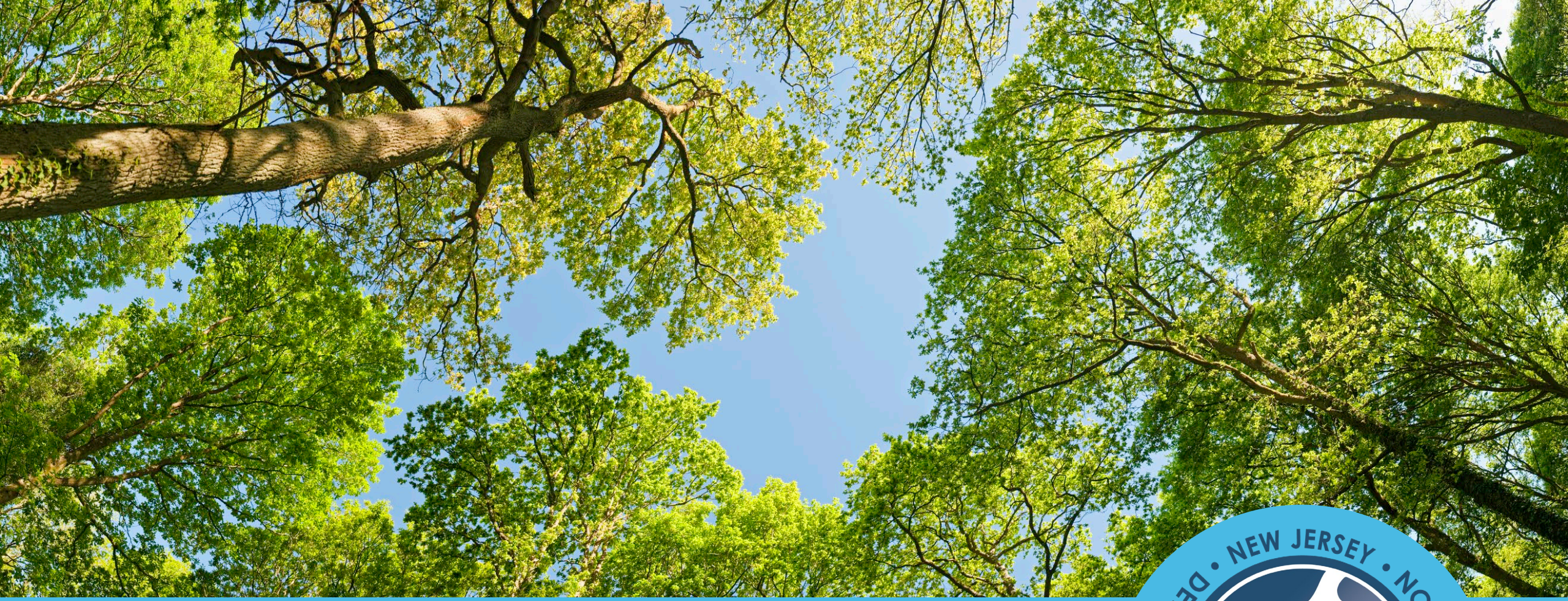


Delaware Valley Goods Movement Task Force

January 18, 2024

Medium & Heavy-Duty Electrification Grants

DEP grants to replace old diesel vehicles & equipment with electric

Examples: school buses, transit buses, garbage trucks, delivery trucks, port trucks and equipment. Includes associated charging equipment.

~$300 million for vehicle/equipment electrification

It Pay$ to Plug In

NJDEP's Grant Program for EV Charging Stations

Level 1 and Level 2 Chargers

Up to $4,000 per port for Level 2 chargers at public places, multi-family homes, and workplaces (for employees, visitors and fleets). First come, first served.

Corridor Fast Chargers

Up to $200,000 per location for public DC fast chargers along major roadways. Competitive solicitation.

Community Fast Chargers

Up to $200,000 per location for public DC fast chargers where people live and work. Competitive solicitation.

Utility Incentives

These grants can be combined with utility incentives for charging infrastructure.

Clean Ports Program NOFO

- Release notice of funding opportunity (NOFO) late winter (~February 2024)
- NOFO closes (~May 2024)
- Applicants selected (~September 2024)
- Grants awarded (~December 2024)

Clean Ports Program Eligible Recipients

Eligible Entities

- Port authority
- State, regional, local, or Tribal agency that has jurisdiction over a port authority or port
- Air pollution control agency
- Private entity that:
  i. Applies for a grant in partnership with an eligible entity above, and
  ii. Owns, operates, or uses facilities, cargo-handling equipment, transportation equipment, or related technology of a port.

Clean Ports Program Goals

1. Reduce diesel pollution (criteria pollutants, GHGs, and air toxics) in near-port communities, with a deliberate focus on those with environmental justice concerns.

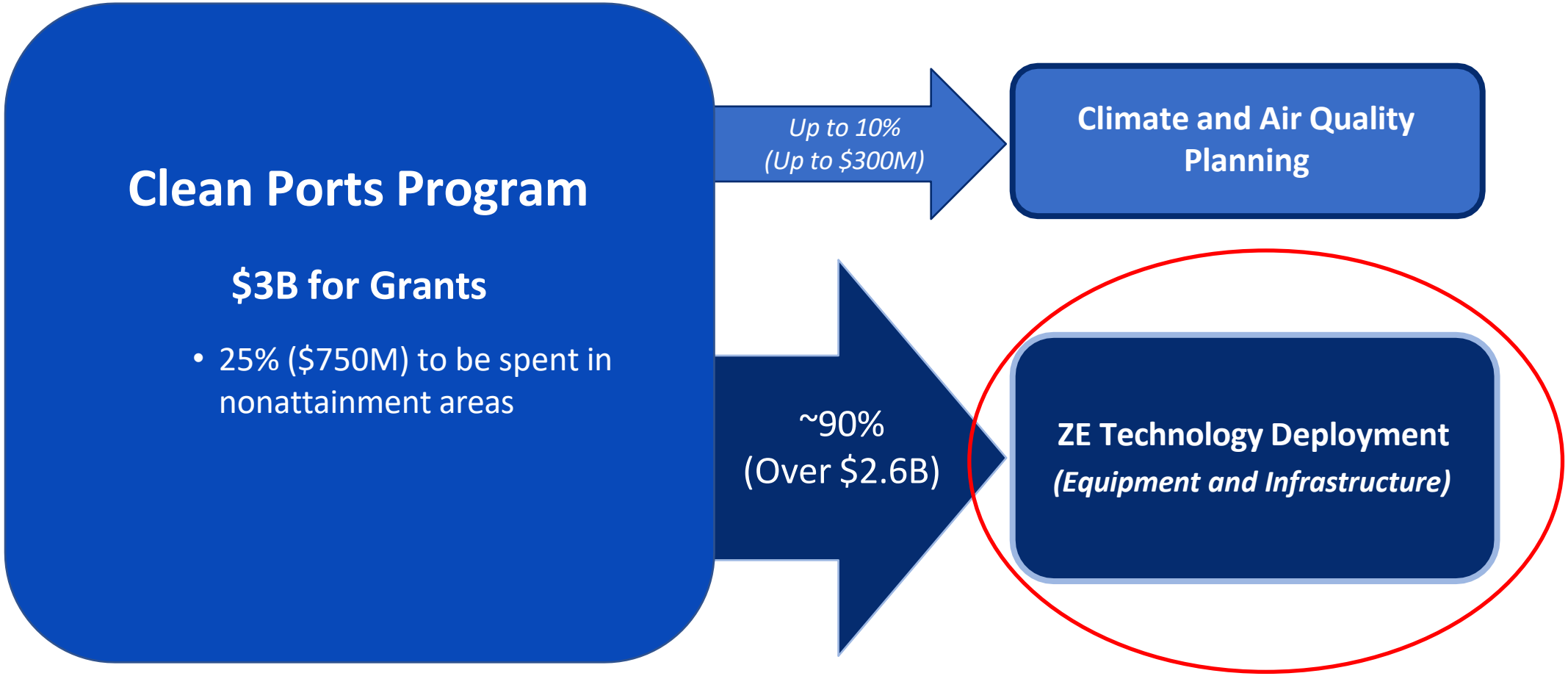
- Maximize zero-emissions (ZE) technology deployment and provide funding for a limited amount of infrastructure to deliver near-term emissions reductions

2. Build a foundation for the port sector to transition over time to fully zero-emissions operations using domestically-produced equipment, positioning ports to serve as a catalyst for transformational change across the freight sector.

3. Help ensure that meaningful community engagement and emissions reduction planning are port industry standard practices.

- Build capacity of ports to continue to make strategic clean air and climate investments into the future
- Ensure some amount of geographic and port type diversity to transition the entire sector

Overview of Anticipated Clean Ports Program



Administrative costs: up to 2% ($60M) in statute

Overall Program Design Elements
Anticipated Eligibility

Port Definition

Planning to include all water ports and large dry ports

Marine and Inland Water Ports *similar to DERA "port" definition*

- Places alongside navigable water (e.g., oceans, rivers, or lakes) with facilities for the loading and unloading of passengers or cargo from ships, ferries, and other commercial vessels. This includes facilities that support non-commercial tribal fishing operations.

Dry Port

- Intermodal truck-rail facilities (not on a water body) where goods are transferred between rail cars and trucks via shipping containers, truck trailers, or as bulk cargo at an appropriately high rate.

ZE Technology Sub-Program Design Elements

Anticipated Technology Commercial Readiness, BABA, and Scrappage

Technology Commercial Readiness

Plan to fund **technology with a few records of implementation** as well as those that have been extensively implemented (roughly Technology Readiness Levels 8 and 9)

BABA guidance/ criteria

EPA encourages domestic production of equipment and infrastructure. More details will be in the notice of funding opportunity.

Scrappage

Plan to award priority points for scrappage, but not require scrappage.

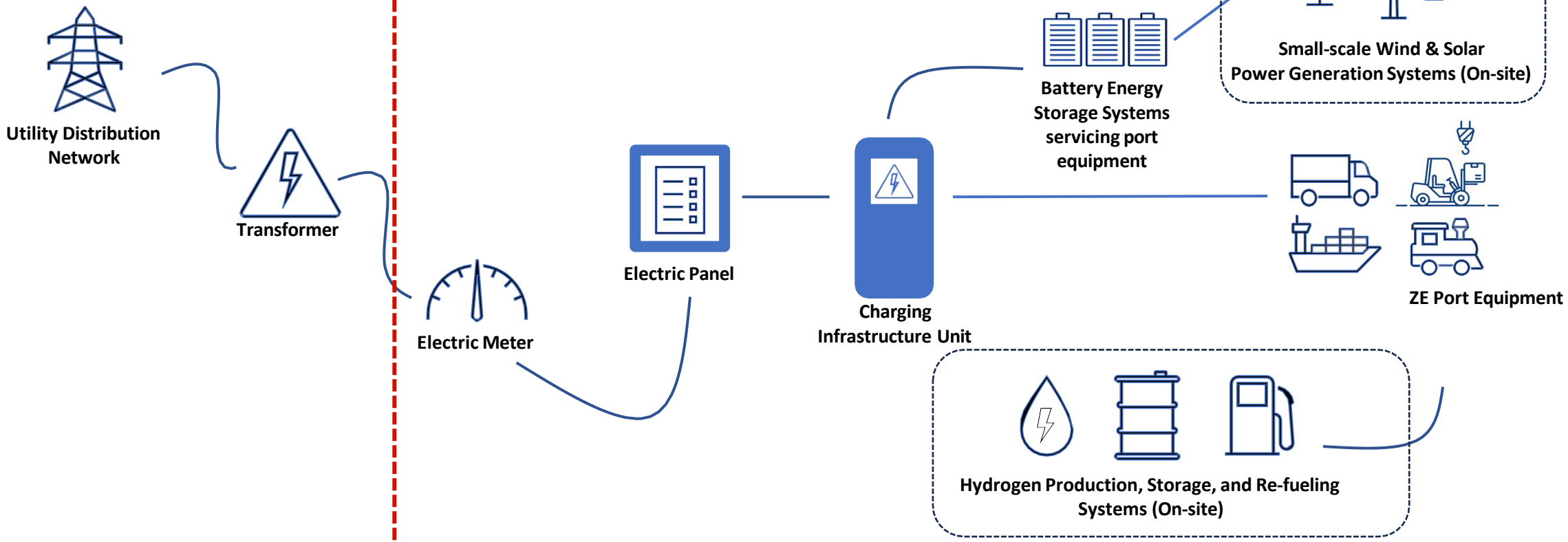
ZE Technology Sub-Program Design Elements

Anticipated Eligible Infrastructure Expenses

Ineligible Expenses

Eligible Expenses

Under consideration



- Infrastructure must serve eligible port equipment purchases as part of the grant, except for vessel shore power
- Anticipate capping infrastructure costs (e.g., at 10-20% of overall grant), except for vessel shore power

Front-of-the-Meter (FTM) - Utility side

Behind-the-Meter (BTM) - Customer side

ZE Technology Sub-Program Design Elements

Anticipated Guidance on Serving a 'Port'

Guidance on Serving a Port

ZE equipment must be located on site, dedicated to port(s), or have a primary purpose of serving port(s).

- Considering annual thresholds for using equipment at port(s) identified in the application.
  - ~75-90% of annual hours
    - cargo handling equipment
    - locomotives
    - harbor craft
  - ~100 truck visits/year for drayage trucks

ZE fueling infrastructure must serve equipment purchased as part of the grant. Projects that propose only infrastructure without accompanying equipment will not be eligible.

- Exception: Vessel shore power

Fueling infrastructure must also be located at a port w/ the exception of infrastructure serving drayage trucks and locomotives.

- Anticipate requiring that fueling infrastructure must be within a certain distance from the port.

Equipment not purchased as a part of the grant may also utilize the fueling infrastructure

ZE Technology Sub-Program Design Elements

Anticipated Cost Share, Funding Floor, Cap, and Duration

Cost Share

10-20% cost share

May not require cost share for certain applicants or project types known cost/demand barriers.

Duration

Up to 4-year project period

Funding Floor Per Grant

$10M for general; $2M for small water ports and tribal areas

Funding Cap Per Grant

$500M funding per grant

NJ DEP grant funding - $300 million

Class 5-Class 8

Medium & Heavy-duty highway vehicles

Marine engines and vessels

Locomotives

Non-road engines, equipment or vehicles

VW, RGGI Funding	DERA Funding		CMAQ, VW, RGGI, DERA Funding
Electric Garbage trucks	Ferry repower		Diesel port equipment
Electric Drayage truck			Hybrid port cranes
Electric Box trucks			Hybrid straddle carriers
Electric Dump trucks			Electric yard tractors
Electric Utility trucks			Electric forklifts
Electric School buses			Electric loaders
Electric Transit buses			Electric airport ground support equipment

Tugboats/Harbor craft

Types of vessels- Hybrid or Electric

- 60% of tugs- PANYNJ – are Tier 0/uncontrolled

Considerations

- Majority of marine engines are 50+ years old
- Marine engines run continuous - excessive idling!
- Benefits from previous diesel to diesel marine repower projects.
  - 85-97% reduction in NOx and PM emissions
  - 30% reduction in fuel usage

Battery Electric Locomotives

Types of vessels

- Switchers
  - Cost effectiveness ranges from ~200,000 to $500,000 per ton of NOx & PM
  - Avg grant amount $600,000. (based on Ohio proj that repowered a 1955 & 1956 engine)
  - Does not include charging
- Rail car movers

Considerations

- Locomotives operate 24/7/365
- Profit margin is low for locomotives
- Switchers tend to be owned by small private companies
- Financial incentives to this sector can yield LARGE benefits
- One electric switcher can yield 3.5-7 tpy of NOx.

Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards Rule

- **Adopted in December 2022- N.J.A.C 7:27-34**
- **Rule will modernize the oldest diesel-powered equipment**
- **Applicability – Any person who owns or operates a:**
  - Terminal or business at a port in the State and operates CHE at that location
  - Intermodal rail yard in the State and operates CHE at that location
  - Any person conducting business in the State who sells, offers to sale, leases, rents, or purchases any CHE or engine that is used at any port or intermodal rail yard in the State.
- **Reporting**
  - All regulated businesses at ports and railyards must report on the CHE inventory as of January 1, 2024 by August 1, 2024.
  - Usage data shall be from 2023

CHE continued

Phase-in Schedule

New equipment

Starting 3/1/2025, must be Tier 4F or the current model year on-road.

Existing equipment

The Phase-in Schedule is based on CARB rule and moving to Tier 4F which is a mature technology on the market for over 10 years.

Cargo handling equipment with an on-road engine	Cargo handling equipment with an off-road engine	Compliance deadline
Pre-1998 model year	Tier 0	March 1, 2025
1998-2003 model year	Tier 1	March 1, 2026
2004-2006 model year	Tier 2	March 1, 2027
2007-2009 model year	Tier 3 and Tier 4 interim	March 1, 2028

CHE continued

Opacity Limits

Beginning March 1, 2025, any cargo handling equipment subject to this rule shall not exceed opacity limits as follows:

PM emissions limit that CHE powered by a diesel CI engine is certified	Opacity Limit
>0.40 g/bhp-hr PM	55%
0.31-0.40 g/bhp-hr PM	45%
0.21-0.30 g/bhp-hr PM	35%
0.11-0.20 g/bhp-hr PM	25%
0.05-0.10 g/bhp-hr PM	15%
<0.05 g/bhp-hr PM	5%

EPA Funding Opportunities

Examples include:

- **Diesel Emissions Reduction Act** (DERA): To incentivize and accelerate the upgrading or retirement of the nation's legacy diesel engine fleet, EPA is soliciting applications nationwide for projects that achieve significant reductions in diesel emissions.
  - Funding opportunity is now open through Dec 1

- **Climate Pollution Reduction Grants** (CPRG)
  - On September 20, **EPA launched a $4.3 billion competition** for states, local governments, tribes, and territories to fund policies and programs to cut climate pollution. Funding opportunity is now open through April 1.
  - **EPA also launched $300 million competition** for only tribes and territories to fund policies and programs to cut climate pollution. Funding opportunity is now open through May 1.

- **Community Change Grants**: Approximately $2 billion dollars for environmental and climate justice activities to benefit disadvantaged communities through projects that reduce pollution, increase community climate resilience, and build community capacity to respond to environmental and climate justice challenges. Coming soon!

- **Thriving Communities Technical Assistance Centers** (TCTACs): Centers will provide training and other assistance to build capacity for navigating federal grant application systems, writing strong grant proposals, and effectively managing grant funding.

For more EPA funding opportunities, visit:
https://www.epa.gov/ports-initiative/funding-opportunities-ports-and-near-port-communities

DOT Funding Opportunities in 2024

Funding

Examples include:

Port Infrastructure Development Program (PIDP)

- Funds projects that improve the safety, efficiency, or reliability of the movement of goods into, out of, around, or within a port.

Reduction in Truck Emissions at Port Facilities (RTEPF)

- Funds projects that reduce truck idling and emissions at ports, including through the advancement of port electrification.

Consolidated Rail Infrastructure and Safety Improvements (CRISI)

- Funds projects that improve the safety, efficiency, and reliability of intercity passenger and freight rail.

Charging and Fueling Infrastructure (CFI) Discretionary Grant

- Funding to strategically deploy publicly accessible electric vehicle charging infrastructure and other alternative fueling infrastructure.

For more federal funding opportunities, visit: https://www.epa.gov/ports-initiative/funding-opportunities-ports-and-near-port-communities

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NJDEP| Volkswagen Settlement Information | Spending Information
NJDEP| Stop the Soot | Equipment Modernization Program
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