



Resilience and Stormwater Management, Hazard Mitigation Planning and Funding

Moderator: Jason F. Cilento, Mayor
Borough of Dunellen, NJ

Resilience and Stormwater Management, Hazard Mitigation Planning and Funding

- Master Plan Climate Vulnerability Assessment
- Flood Mitigation Measures
- Processes & Benefits of Creating a Stormwater Utility
- EV Parking, EV Fleets, and Green House Gas Reduction
- Infrastructure Upgrading Funding Strategies





**Nick Angarone,
New Jersey Chief Resilience
Officer & Bureau of Climate
Resilience Planning Manager,
NJDEP**



Mark McDonough, President
New Jersey American Water

Raritan-Millstone Water Treatment Plant





NEW JERSEY
**STORMWATER
UTILITY**
RESOURCE CENTER

REST EASY WHEN IT RAINS

WHY A STORMWATER UTILITY MAKES MUNICIPAL GOOD SENSE



Brianne Callahan
Stormwater Manager
New Jersey Future

May 11, 2022

NJ Conference of Mayors



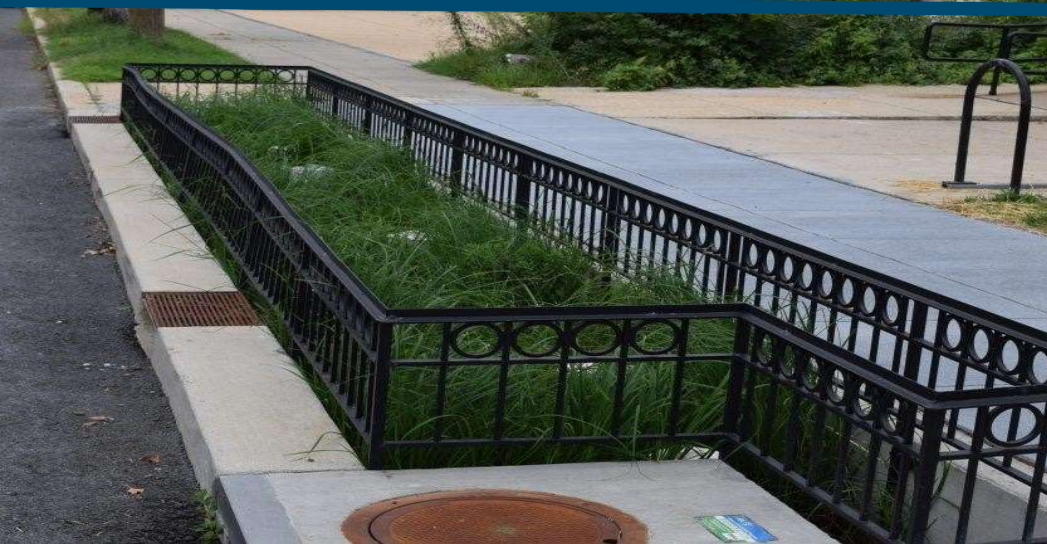
NEW JERSEY
FUTURE

Agenda

- **Current Stormwater Funding Practices**
- **Intro to Stormwater Utilities & Process**
- **Stormwater Utilities Resources**

Current Stormwater Funding Practices

- **Property Taxes**
- **Sewer Fees**



What Are My Options?



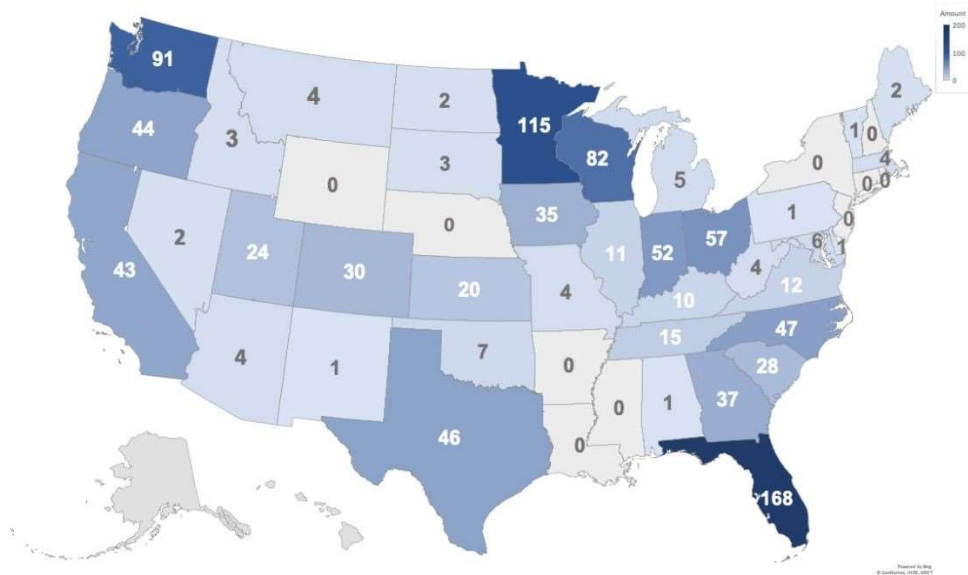
- **Do Nothing**
- **Increase Property Taxes**
- **Increase Sewer Rates**
- **Create a Stormwater Utility**

What is a Stormwater Utility?

Similar to a water or sewer utility, a stormwater utility is a local assessment district that dedicates funding specifically and solely to address stormwater management problems.



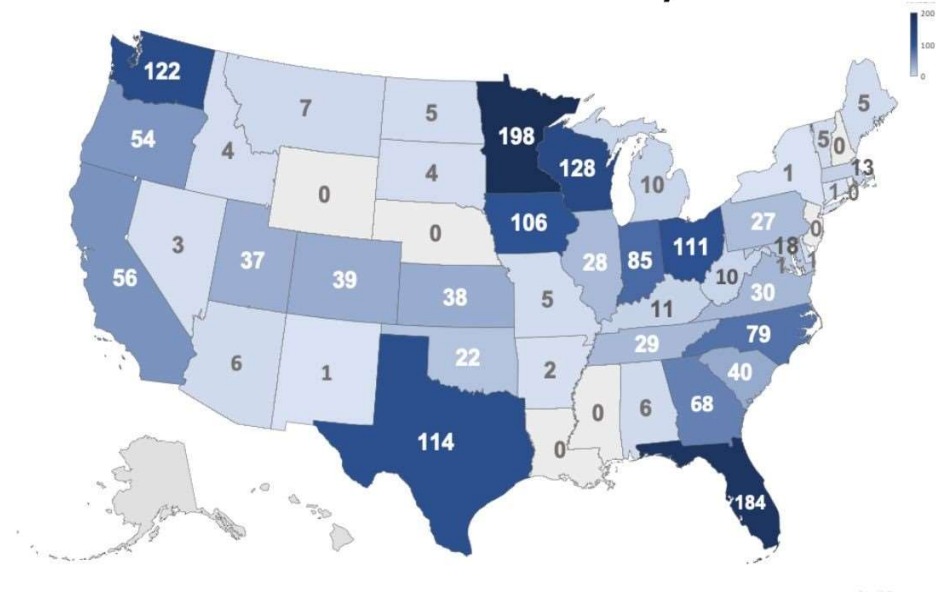
Number of Stormwater Utilities by State 2009



As of 2009, 1,022 stormwater utilities had formed in the United States.

(Source: Western Kentucky University 2009 Stormwater Utility Survey)

Number of Stormwater Utilities by State 2019



As of 2019, 1,716 stormwater utilities had formed in the United States.

(Source: Western Kentucky University 2009 Stormwater Utility Survey)

Clean Stormwater & Flood Reduction Act

- New Jersey's law allows, but does not require, local governments to establish stormwater utilities.
- If established, stormwater utilities must collect fees based on the amount of stormwater a property generates.
- Utilities can be established by municipalities, counties, groups of municipalities, and sewerage and improvement authorities.
- Funds generated from the fees are dedicated solely to stormwater management and cannot be used for any other purposes.



Stormwater Utility: Key Attributes



- Equitable
 - **Non-Profits**
 - **Parking Lots, etc.**
- Dedicated
- Stable
- Sole exemption - agriculture/horticulture

Stormwater Utility: What Can It Pay For?



- Establishment of a Stormwater Utility
- Capital Expenditures
- Operations & Maintenance
- Asset Management
- Public Outreach & Education
- Etc.

Credits

- **Definition:** Stormwater credits are ongoing reductions in a customer's stormwater fee provided for private stormwater management activities that reduce demand on the stormwater system and/or reduce the utility's costs.
- Credit programs also provide a venue for stormwater utilities to promote green initiatives, sustainable development and environmental stewardship across their service area(s).



Process



Key Milestones For Implementation

Eight Basic Steps to Establish a Stormwater Utility

1. Vetting the concept with top local officials
2. Establishing a core team of internal experts
3. Engaging the mayor (or county executive or utility director)
4. Authorizing a feasibility study to identify options that best suit the community
5. Ongoing stakeholder and outreach activities
6. "Go" or "no go" decision
7. An implementation phase
8. The final launch

<https://stormwaterutilities.njfuture.org/key-milestones-for-implementation/>



Community Research: Important Questions to Answer

- What are the problems facing your community?
- What are your community's goals for managing stormwater?
- Do you need a different structure and more resources?
- What is the cost of inaction?



[Home](#) [About](#) [Why Stormwater Matters](#) [Why a Stormwater Utility?](#) [Establish a Stormwater Utility](#) [Stay Informed](#) [Resources](#)

Protect Public Health.
Safeguard Your Community.
Rest Easier When It Rains.



Why Stormwater Matters
[Learn More >](#)



Why a Stormwater Utility?
[Learn More >](#)



Establish a Stormwater Utility
[Learn More >](#)



How Do Localities Typically Manage Stormwater?

What Options Are Available to Address Stormwater?

What is a Stormwater Utility?

What Are The Key Benefits of a Stormwater Utility?

Common Myths

What Legislation Makes a Stormwater Utility Possible in New Jersey?

What Do Stormwater Utilities Look Like in Other States?

A stormwater utility can help -

Why A Stormwater Utility?

How Do Localities Typically Manage Stormwater?

What Options Are Available?

What is a Stormwater Utility?

What Are The Key Benefits of a Stormwater Utility?

- How Do Localities Typically Manage Stormwater?
- What Options are Available?
- What is a Stormwater Utility?
- Key Benefits
- Common Myths
- NJ Legislation
- Stormwater Utilities Around the US



List of Potential Stakeholder Committee Members



[Home](#) [About](#) [Why Stormwater Matters](#) [Why a Sto](#)

[Stay Informed](#) [Resources](#)

- Hospital
- Major Commercial Employer
- Major Industrial Employer
- Major Mall
- School District
- College
- Churches
- Homeowners Association
- Environmental Group



Potential Stakeholder Committee Meetings & Topics

Click each meeting to read the topics

Meeting 1	Field Trip	Meeting 2	Meeting 3	Meeting 4	Meeting 5	Meeting 6
Introduction to Stormwater Existing Program Issues Program Needs and Priorities						



- Home
- Discovery
- Members
- About
- Invite
- Topics
- Events
- Expertise
- Teams

CHAT

NJ Stormwater Utility Lear...

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Search NJ Stormwater Utility Learning

Get Started



35



NJ Stormwater Utility Learning Exchange

Manage +

Join with your peers to learn from experienced localities, compare notes, and stay up-to-date!



+ Share what's on your mind...

SHOWING PERSONAL FEED ▾

SORTED BY LAST ACTIVITY ▾



Top Teams

PRIVATE

TEAM
New Jersey Localities

Protect your New Jersey community so everyone will rest easier when it rains!

 Last active 3mo ago





NEW JERSEY GREEN INFRASTRUCTURE MUNICIPAL TOOLKIT

FROM STORMWATER
TO CLEAN WATER

PREVENT
POLLUTION

REDUCE
FLOODING

IMPROVE YOUR
COMMUNITY

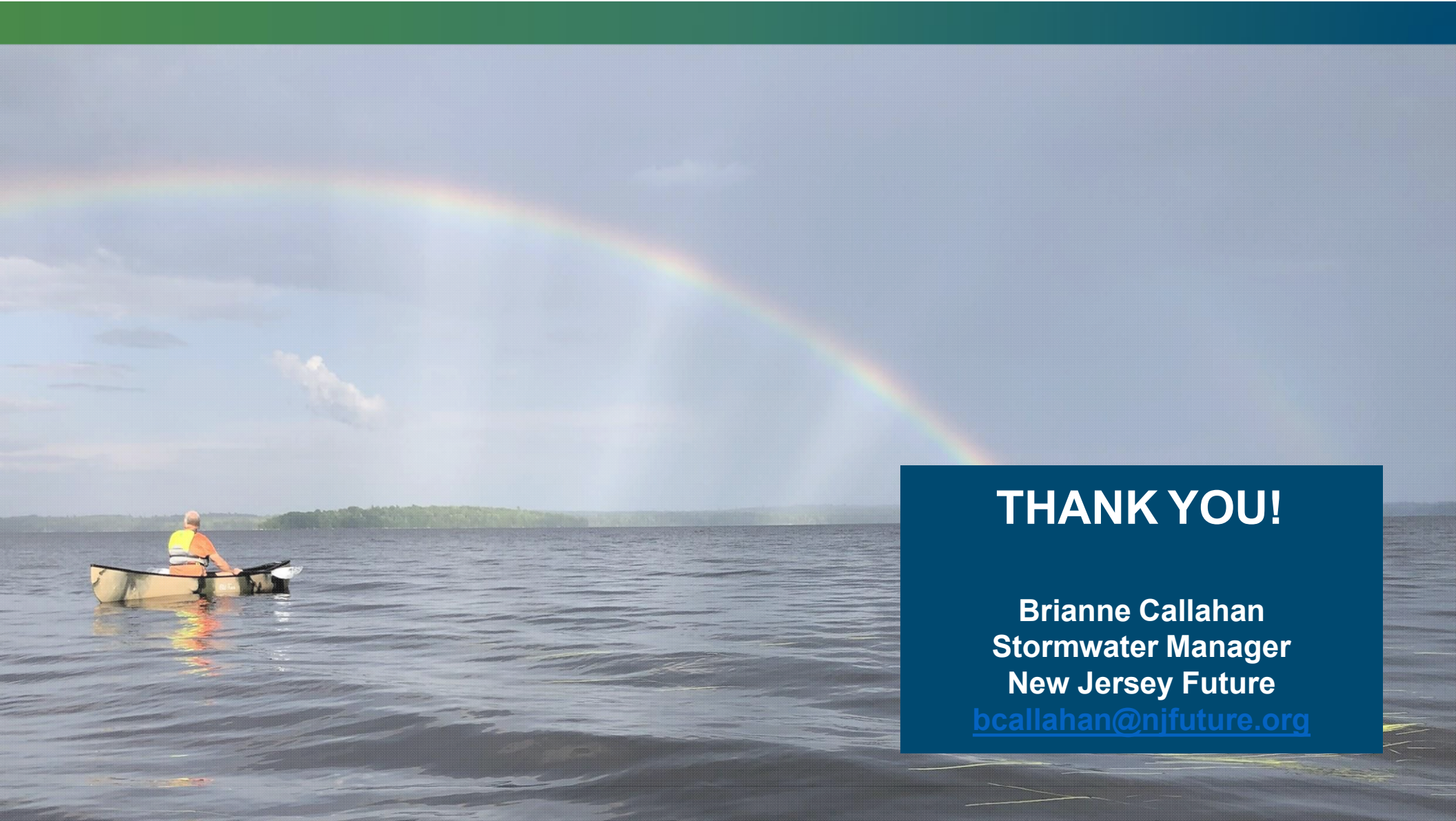
INTRODUCING YOUR ONLINE, ONE-STOP
GREEN INFRASTRUCTURE RESOURCE

GIToolkit.NJFuture.org





Check out our Green Infrastructure Toolkit!



THANK YOU!

**Brianne Callahan
Stormwater Manager
New Jersey Future**

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Electric Vehicles: Resilience & Resources

Andrea Friedman, Supervisor
Division of Air Quality, Bureau of Mobile Services, NJDEP

NJ Conference of Mayors, May 11, 2022





Includes:

Incentives

Procurement Tools

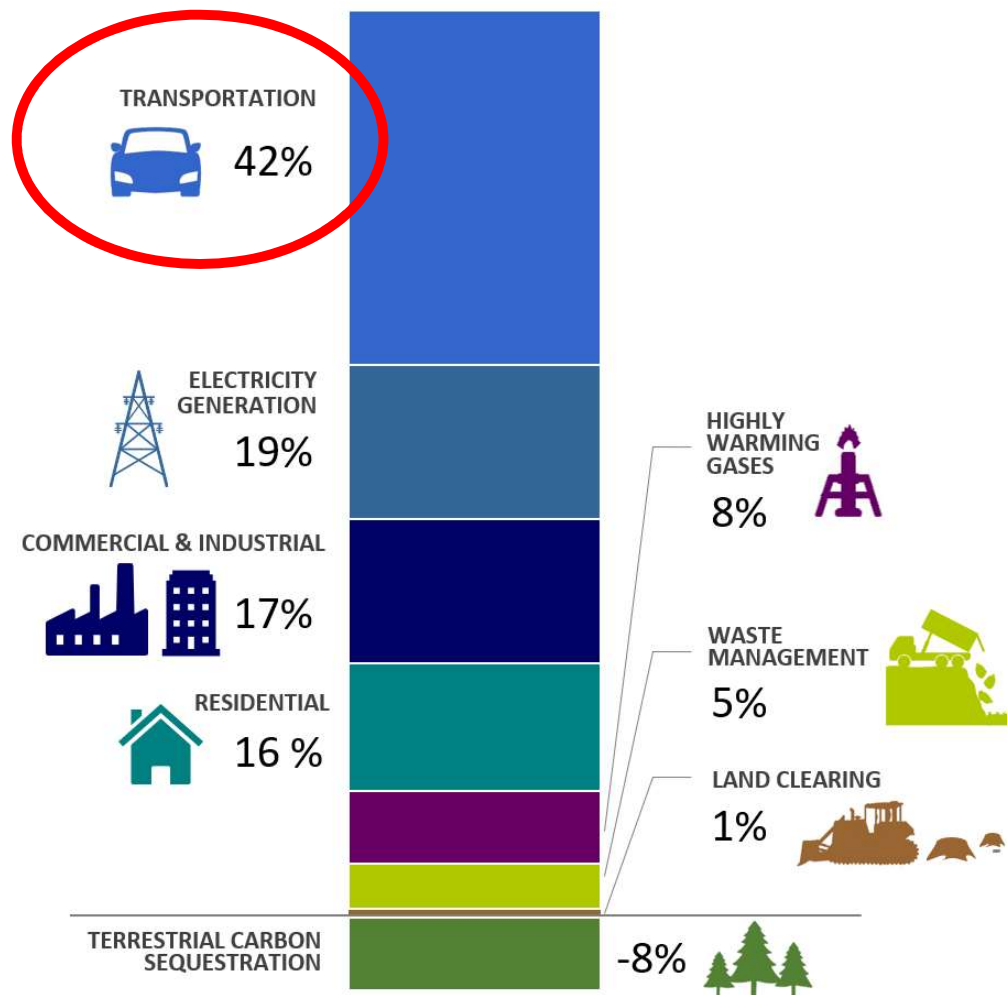
Policy & Planning Support

Sustainable Jersey Resources

Resources for Residents

nj.gov/dep/drivegreen/localresources.pdf

“Limiting human-induced global warming to a specific level requires limiting cumulative CO2 emissions, reaching at least net zero CO2 emissions, along with strong reductions in other greenhouse gas emissions.”



New Jersey Greenhouse Gas Sources & Sinks 2018

EVs: Resiliency Considerations

- Fuel diversity = resiliency
- Fully electric vehicles versus plug-in hybrids
- Charge before the storm
- Plan charging infrastructure with hazards in mind
 - Indoors: Parking garage upper floors
 - Outdoors: Choose high ground
- Site public fast chargers along evacuation routes



State funding programs

www.drivegreen.nj.gov/pdf/incentivesummary.pdf

NJDEP

- It Pay\$ to Plug In (charging stations)
- RGGI funding (Class 2b-8 electric vehicles and charging stations)

NJEDA

- NJZIP (Class 2b-6 electric vehicles)

NJBPU

- Clean Fleet program (light duty EV and charging stations for govt)
- Utility make ready programs



Clean Fleet EV Incentive Award Caps

Local governments, entities, schools	EVs	Charging stations
<i>serving populations < 20,000</i>	2	1
<i>serving populations > 20,000</i>	5	2
<i>serving populations > 50,000</i>	7	4
Local governments		
<i>serving populations > 100,000</i>	10	4
State agencies, boards, commissions, universities, and counties	10	4

www.NJCleanEnergy.com/EV

NJDEP Medium & Heavy-Duty Vehicle 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.

Overburdened communities will be prioritized.

*Next competitive solicitation:
July 2022*



NJ ZIP: Zero-emission Incentive Program



Funding

\$44.25M in voucher pool

Timing

First come, first serve with rolling approvals, open until all funds committed. Set asides by location and for small businesses to ensure equitable access.

Eligibility

Businesses or institutions (including schools!) operating or domiciling zero-emission medium-duty vehicles in **Greater Camden, Newark, New Brunswick, and Shore Areas**

Voucher Amounts

Vehicle Class	Voucher \$
Class 2b	\$25,000
Class 3	\$55,000
Class 4	\$75,000
Class 5	\$85,000
Class 6	\$100,000

Bonus voucher criteria

- Minority-, women-, or veteran-owned business
- Small business
- Small business scrappage
- 25% NJ-manufactured
- Public access for driver readiness and education

Basic program requirements

- \$1000 application fee
- Buy new ZEV & register in NJ
- 3 years operation, 75% in NJ and 50% in EJ
- Vendor provides charging and in-state maintenance plan
- Comply with audit requirements

LEARN MORE AT www.njeda.com/njzip

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 **NEW**

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

www.drivegreen.nj.gov/plugin.html

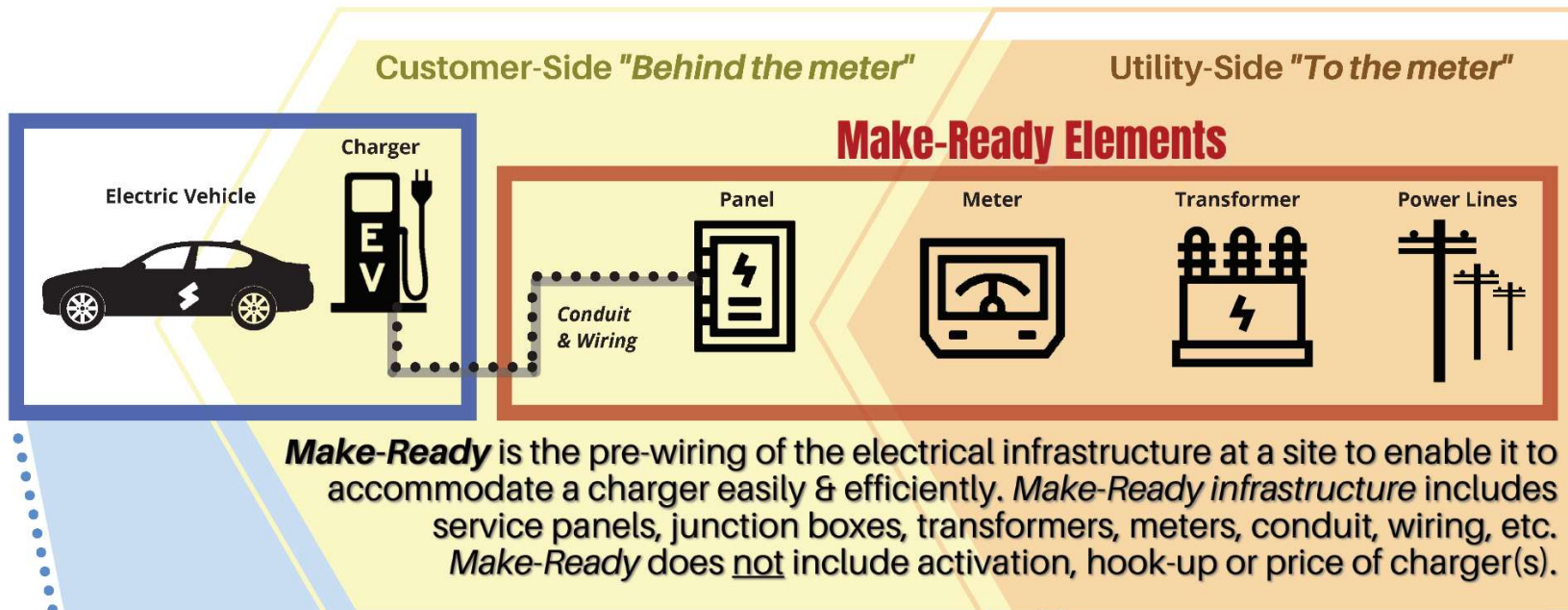


Utility
make
ready
programs



What does *Make-Ready* mean?

A Guide to Electric Vehicle Infrastructure



For eligibility, incentive amounts, requirement and application, see:

[PSE&G Electric Vehicle Charging Program](#)

[Atlantic City Electric Vehicle Charging Program](#)

COMING SOON

Federal funding
from the Bipartisan
Infrastructure Law

EV Charging: Formula Funding

EV Charging: National Grant Program

School Bus Grant Program



Infrastructure and Jobs Act

Billions of dollars in federal funding are coming to states and local governments for transportation electrification.

Subscribe to our listserv for information updates:

www.state.nj.us/dep/stophthesoot/sts-listserv.htm

Visit our website for more EV info

Your choice to drive electric improves New Jersey's air quality and helps slow climate change.

drive green new jersey



Vehicle Basics

Between all of the different acronyms, it's easy to get confused. Here we have a basic breakdown of the main types of electric vehicles that either plug in or have no harmful tailpipe emissions.



Charging

There are many options when it comes to charging your electric vehicle. This information will reveal the types of charging stations, where to find one, information on the cleanliness of the NJ grid, and charging resources.



Incentives to Drive Green

There are many different federal and state incentives to make the transition easier. Explore Electric Vehicle Affordability with calculators that determines your personal cost. "It Pays to Plug In", provides grants to offset the cost of electric vehicle charging stations.



Policy Initiatives

Learn about the policy initiatives New Jersey is developing to support the electrification of the transportation sector to meet State's 2050 greenhouse gas goal.

www.drivegreen.nj.gov



Includes:

Incentives

Procurement Tools






Policy & Planning Support

Sustainable Jersey Resources

Resources for Residents

nj.gov/dep/drivegreen/localresources.pdf

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[@DriveCleanNJ](https://www.instagram.com/DriveCleanNJ)

*Bureau of Mobile
Sources
Instagram*



Thank you!

Andrea.Friedman@dep.nj.gov

NJ Conference of Mayors
State Revolving Fund &
Bipartisan Infrastructure Law (BIL)
Resilience Guidance
Water Resources Management (WRM)

Charles Jenkins, Bureau Chief
Bureau of Environmental, Engineering and
Permitting Municipal Finance &
Construction Element, NJDEP

May 11, 2022

SFY 2023 Clean Water & Drinking Water Intended Use Plan Highlights



- SFY 2023 Funding Availability – SRF & BIL Funds
 - \$900 Million For Eligible Clean Water Projects
 - \$500 Million For Eligible Drinking Water Projects

SFY 2023 Clean Water & Drinking Water Intended Use Plan Highlights



- Climate Change and Sea Level Rise
 - ❖ DEP is developing a new Infrastructure Resilience Guidance and Best Practices which will set the standards which will be required elements for new projects seeking SRF funding through the Water Bank.
 - ❖ The Water Bank will also be informed by data in the following reports and documents in evaluating the technical, environmental, and financial feasibility of proposed projects:
 - [2020 New Jersey Scientific Report on Climate Change](#)
 - [Sea Level Rise Guidance for New Jersey](#)
 - [State of New Jersey Climate Change Resilience Strategy](#)

RESILIENCE GUIDANCE



- Previous guidance focused on a project-specific tiered approach to comply with FEMA 500-year + 1 foot flood level
 1. Flood zone avoidance for entire Treatment Works
 2. Elevation of Treatment Works
 3. Flood zone avoidance for critical units - elevation
 4. Flood-proofing of Treatment Works – barriers, walls, berms
 5. Flood-proofing of facility components - waterproof doors & windows, portable barriers
 6. Flood proofing of individual critical components – elevation of electrical controls, generators

RESILIENCE GUIDANCE



- New guidance addresses community and infrastructure sustainability
- Applicant Requirements
 - Mapping – infrastructure, community, FEMA 500+1, existing mean waterline, future projected waterline based on 2.1 foot SLR by year 2050
 - Assess community vulnerability to Climate Change and Sea Level Rise – e.g. will SLR erode the user base?
 - Assess infrastructure vulnerability and criticality

RESILIENCE GUIDANCE



- Applicant Requirements continued
 - Identify Alternatives
 - Identify existing and proposed resilience measures and need for future measures
 - Evaluate Alternatives
 - Present Selected Alternative including justification for less-protective measures

RESILIENCE GUIDANCE



- NJ Water Bank Process
 - Evaluate Applicant submission
 - Submitted planning addresses requirements?
 - Acceptance or denial of selected alternative
 - Determination of useful life of financed infrastructure
 - “Standard” SRF loan term is 30 years
 - NJ Water Bank may establish a shorter loan term depending on project specifics
- NJ Water Bank Guidance will be updated as needed to be consistent with other forthcoming guidance and regulations

Q&A

