



NJ Climate Pollution Reduction Grant Program Buildings + Electric Generation Workshop

November 22nd, 11:00AM



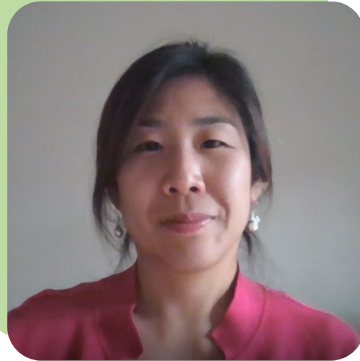
Meet the Team

Lead Presenter



Doug Benton
NJDEP, Climate Change &
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Co-Presenter



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Division of Clean Energy

Co-Presenter



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Resources

What is CPRG?

The **Climate Pollution Reduction Grant (CPRG) program** is a nationwide, two-phase EPA grant, funded via the Inflation Reduction Act

Phase One: \$250 Million

Noncompetitive planning grants to states, local governments, tribes, and territories to develop and implement climate action plans for reducing greenhouse gas emissions and other harmful air pollution.

Phase Two: \$4.6 Billion

Competitive implementation grants to carry out the greenhouse gas reduction measures proposed in the climate action plans.



For more information visit: <https://www.epa.gov/inflation-reduction-act/climate-pollution-reduction-grants>

CPRG Phase I · Grant Recipients

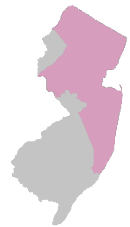
4 Planning Grants covering New Jersey



State of New Jersey

NJDEP Lead

Statewide



New York-Newark-Jersey City, NY-NJ-PA Metro Area

NYCEDC + NJTPA Lead

Covered Counties: Essex, Hunterdon, Morris, Sussex, Union, Middlesex, Monmouth, Ocean Somerset, Bergen, Hudson, Passaic



Allentown-Bethlehem-Easton, PA-NJ Metro Area

LVPC Lead

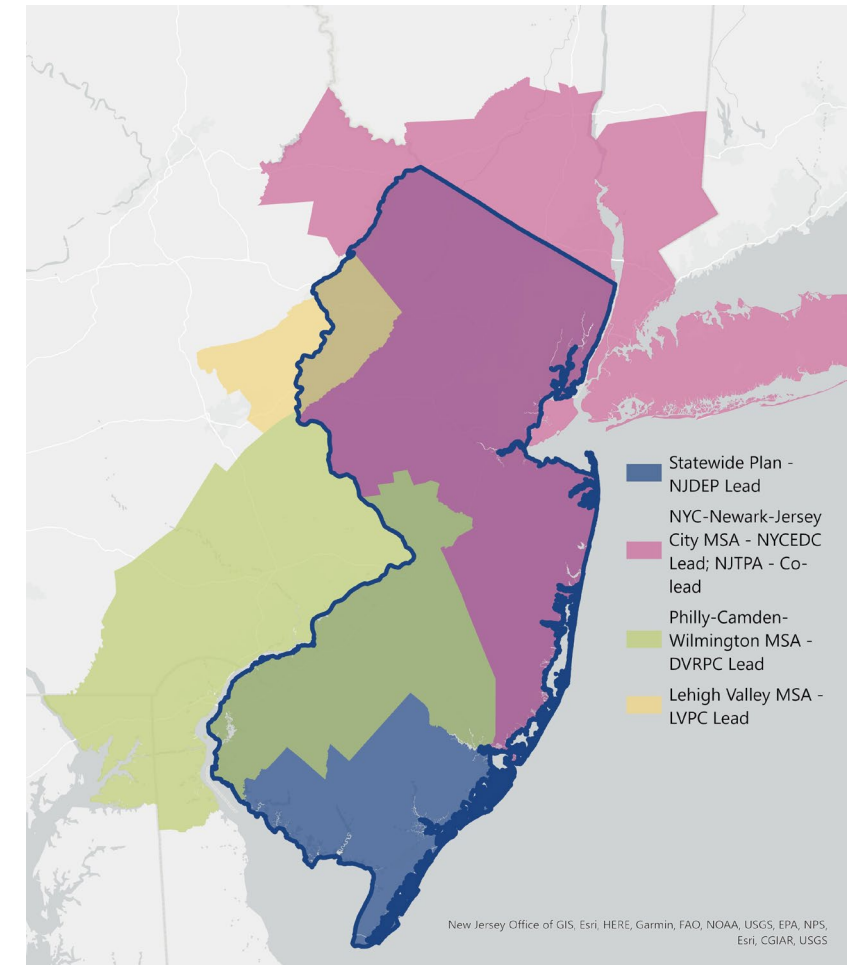
Covered Counties: Warren



Philadelphia-Camden-Wilmington, PA-NJ-DE-MD Metro Area

DVRPC Lead

Covered Counties: Burlington, Camden, Gloucester, Mercer, Salem



CPRG Workplan Areas within New Jersey

CPRG Phase I · Planning Grants

One planning grant, three deliverables over 4 years



Priority Climate Action Plan (PCAP)

Due March 2024

- Near-term, implementation ready, priority greenhouse gas reduction
- Prerequisite for implementation grant



Comprehensive Climate Action Plan (CCAP)

Due Mid-2025

- All sectors/significant greenhouse gas sources and sinks
- Near- and long-term greenhouse emission reduction goals and strategies

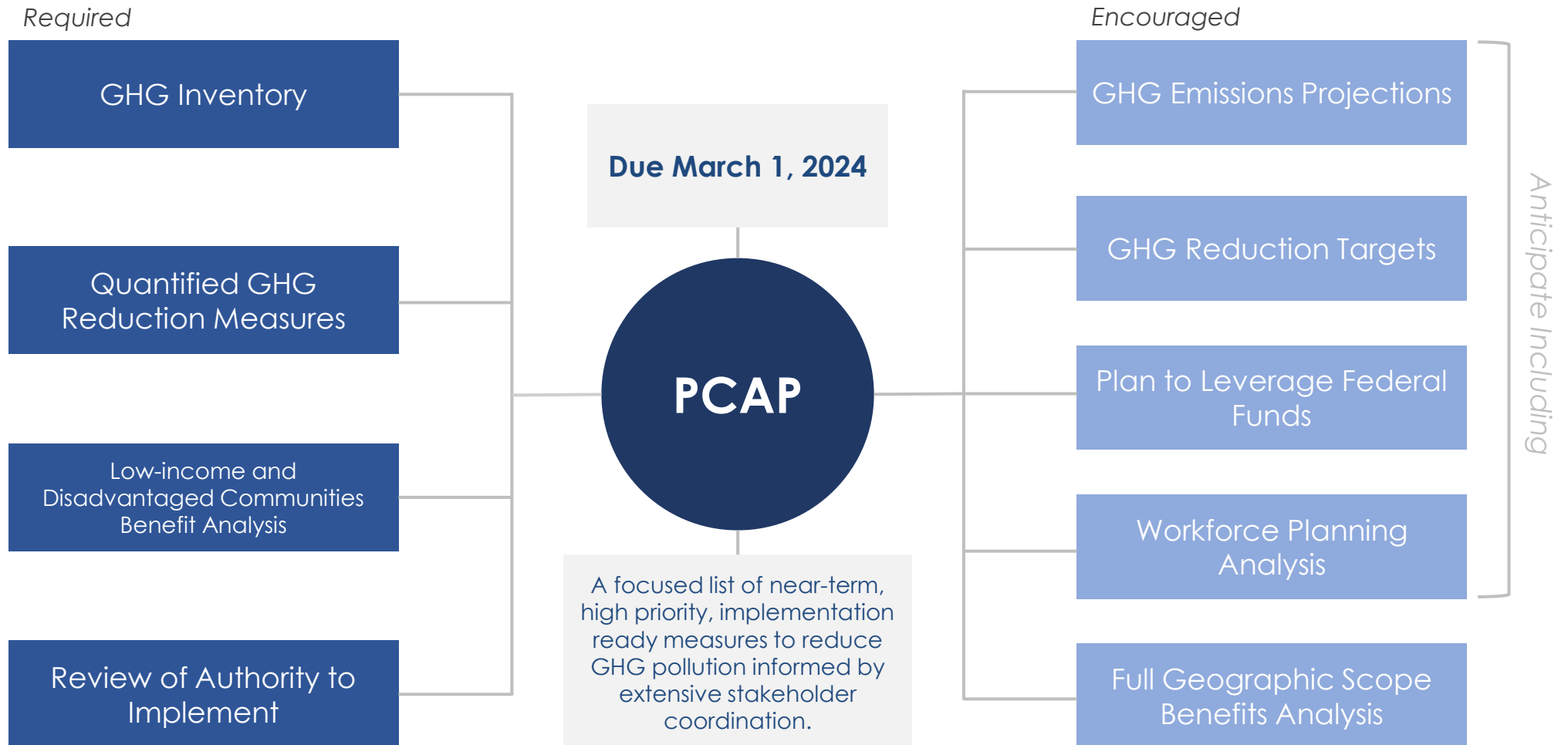


Status Update Report

Due 2027

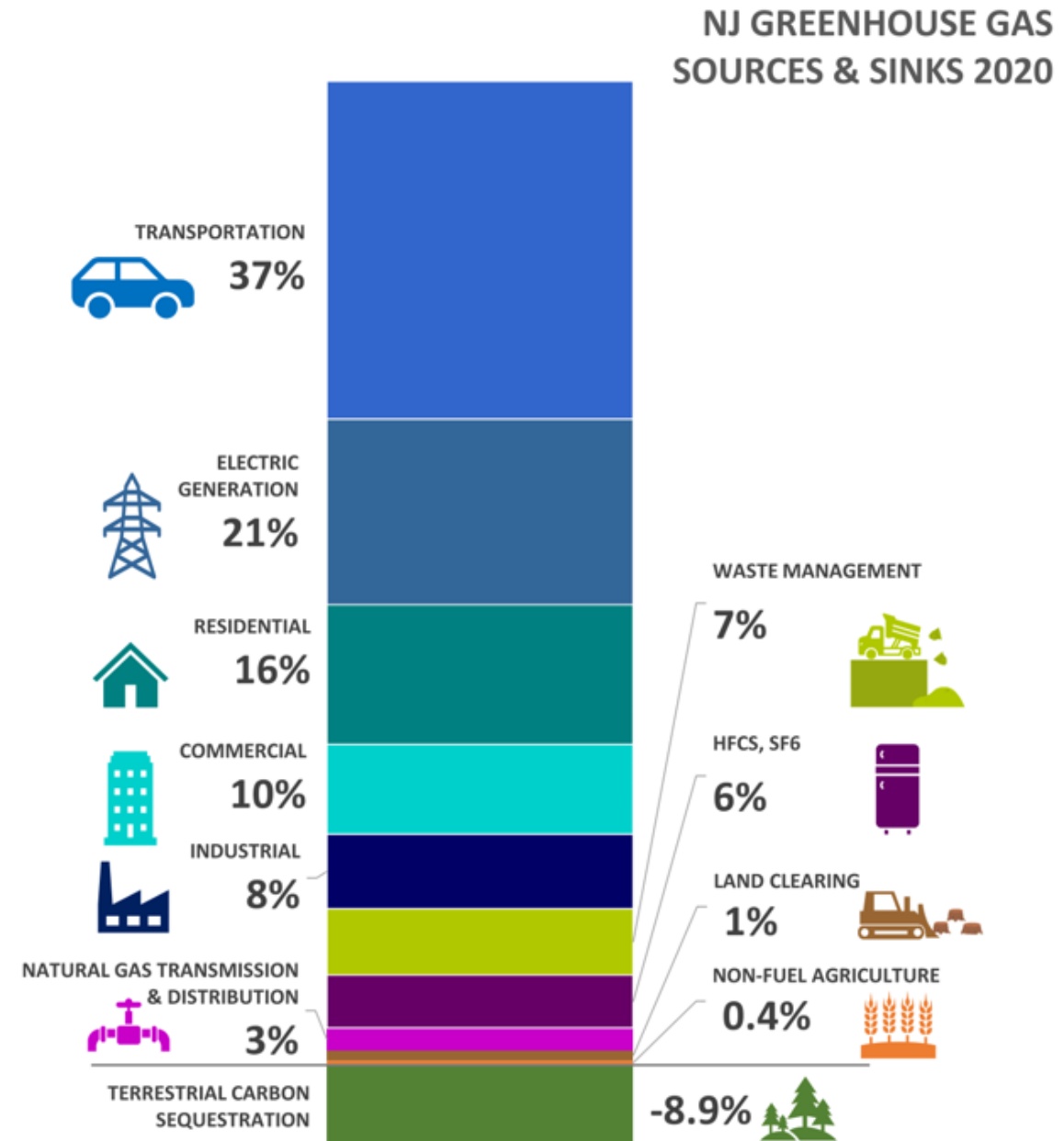
- Update on implementation, analysis and plans
- Progress and next steps for key metrics

New Jersey's Priority Climate Action Plan (PCAP)



New Jersey's Priority Sectors for PCAP

- Transportation
- Buildings
- Electric Generation
- Organic Waste
- Hydrofluorocarbons (HFCs) / Highly Warming Gases
- C-Sequestration



CPRG Phase II · Implementation Grants Eligibility

Open to entities who:

1. Received a CPRG planning grant, or
2. Eligible entities that did not receive a CPRG planning grant but are applying for funds to implement measures included in an applicable Priority Climate Action Plan

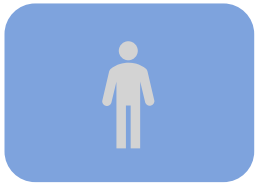
Eligible Applicants

- ✓ Metropolitan Statistical Areas (MSA)
- ✓ County
- ✓ Municipality
- ✓ Air pollution control agency
- ✓ Tribe

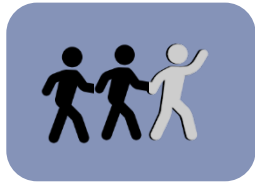
CPRG Phase II · Implementation Grant

Key Considerations

Eligible entities can submit at most two lead applications



*Individual
Application*



*Lead of a Coalition
Application*

Eligible entities can be a partner in numerous coalition applications



EPA will not award multiple grants to implement the same measures in the same location

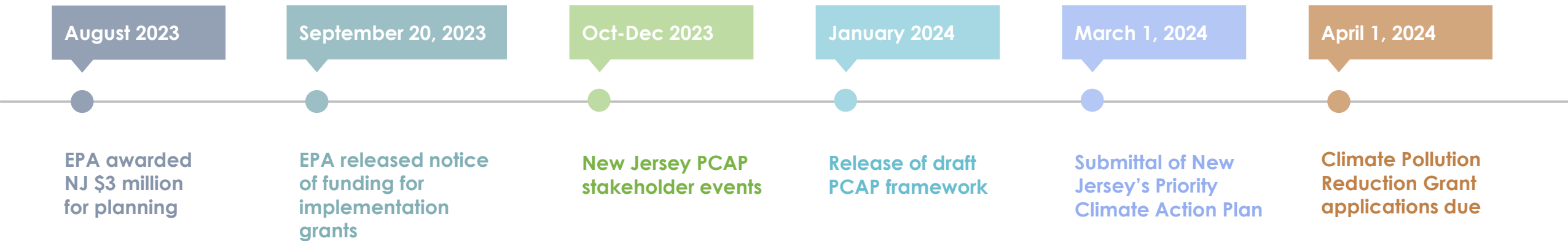
Coalitions may not submit multiple applications for the same set of GHG reduction measures using different lead applicants

Applications will be evaluated holistically

CPRG Key Deadlines

September 2023	Implementation Grant NOFO Issued
Feb 1, 2024	Notice of Intent to Apply for Implementation Grant Due
March 1, 2024	PCAP due
April 1, 2024	Implementation Grant applications due
July 2024	Awards for Implementation Grants
Summer 2025	CCAP due
2027	Status Report due

Timeline for PCAP Development



Upcoming Stakeholder Events

Upcoming Topical Workshops

- November 28th —Transportation Sector Workshop | [Register](#)

Previous Topical Workshops (recordings)

- November 8th – Natural and Working Lands | [Watch Recording](#)
- November 9th – Food Waste | [Watch Recording](#)
- November 13th – Highly Warming Gases | [Watch Recording](#)

Additional Events will be scheduled for other sectors and interest groups

Visit Our Webpage + Join the Email List

<https://dep.nj.gov/climatechange/mitigation/cprg/>



Buildings + Electric Generation Deep Dive

Buildings Snapshot



Goals	Priority Reduction Pathways
EMP/80x50 Report: 90% of buildings must be converted to 100% clean energy systems, with full scale conversion beginning in 2030	1. Electrify space and water heating (existing and new)
E.O. 316: Electrify 400,000 residential dwelling units and 20,000 commercial properties by 2030	
E.O. 316: Make 10% of all low-to-moderate income (LMI) properties electrification-ready by 2030	2. Maximize energy efficiency in existing buildings
United States Climate Alliance Commitment: Install 20 million heat pumps across participating states by 2030	

Context: Building Sector in New Jersey

Number of Residences in NJ: ~ 3.4 Million

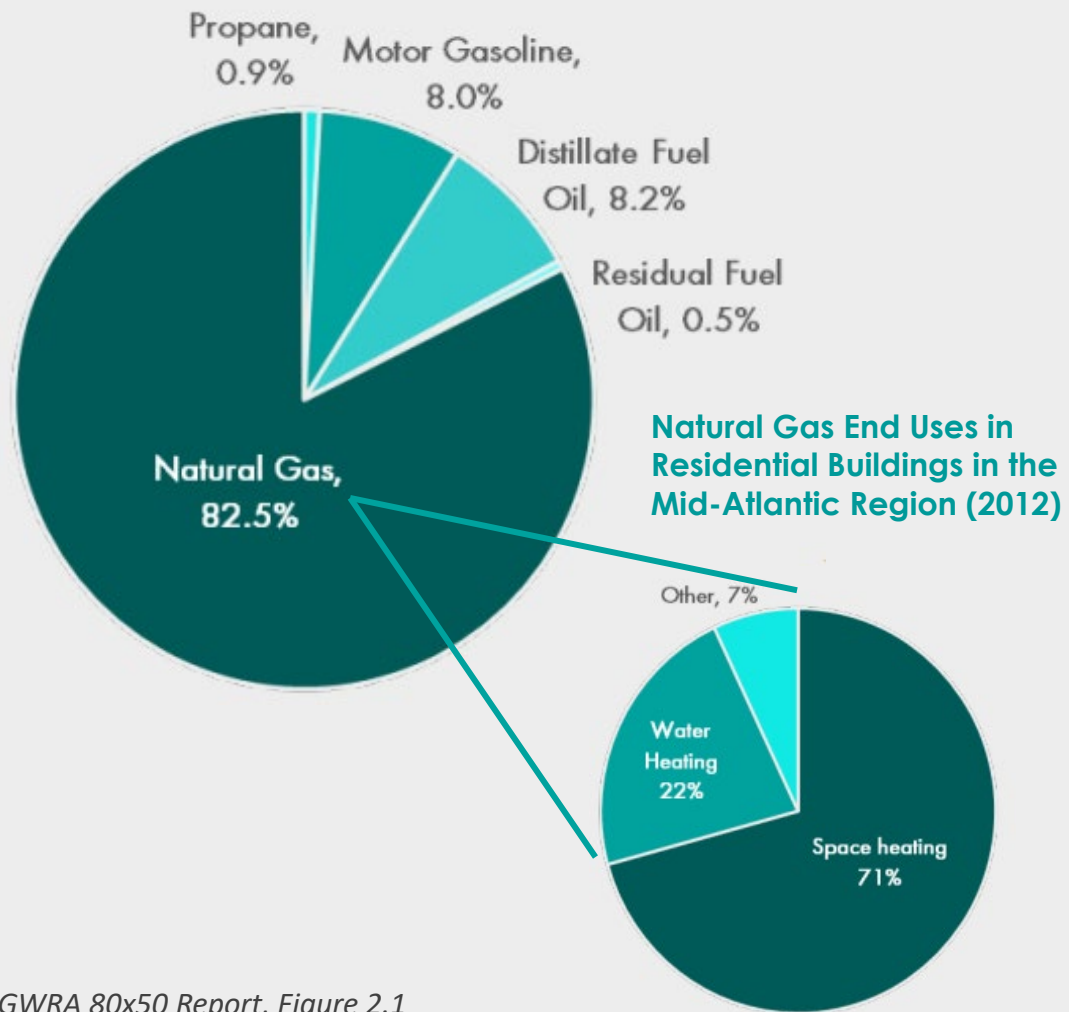
- 11% of homes are all-electric
- 3% of homes use heat pumps for primary space heating
- 16% of homes use electricity for primary space heating
- 45% of home have heating or cooling equipment that is 15 years or older

Number of Commercial Buildings in NJ: ~112.5 Thousand



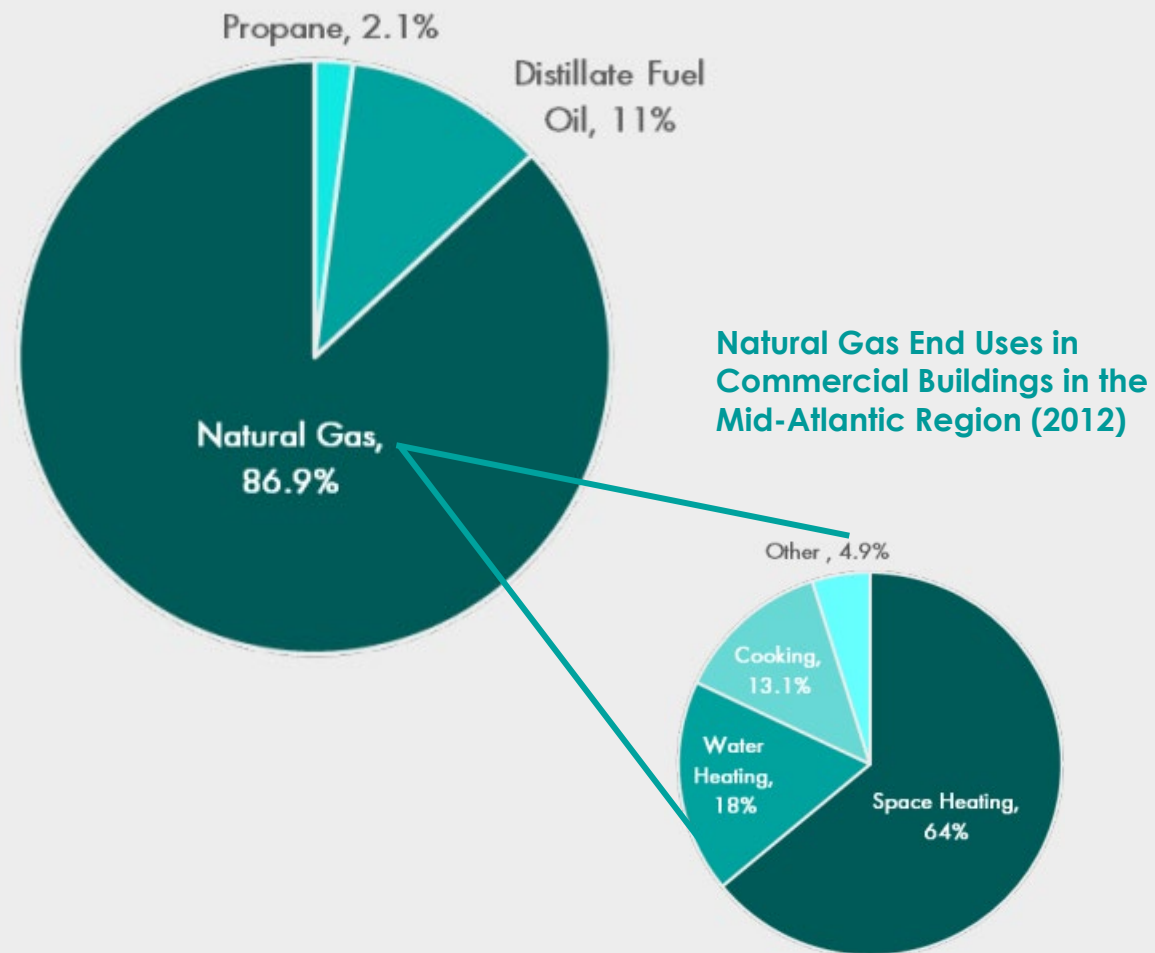
Buildings Emissions

Sources of Residential Building Emissions (2018)



GWRA 80x50 Report, Figure 2.1

Sources of Commercial Building Emissions (2018)



GWRA 80x50 Report, Figure 2.3

Benchmarking Law

- The Clean Energy Act of 2018 requirement
- Mandatory benchmarking of commercial and public buildings by December 2023
- Benchmarking involves energy and water usage and tracks performance over time



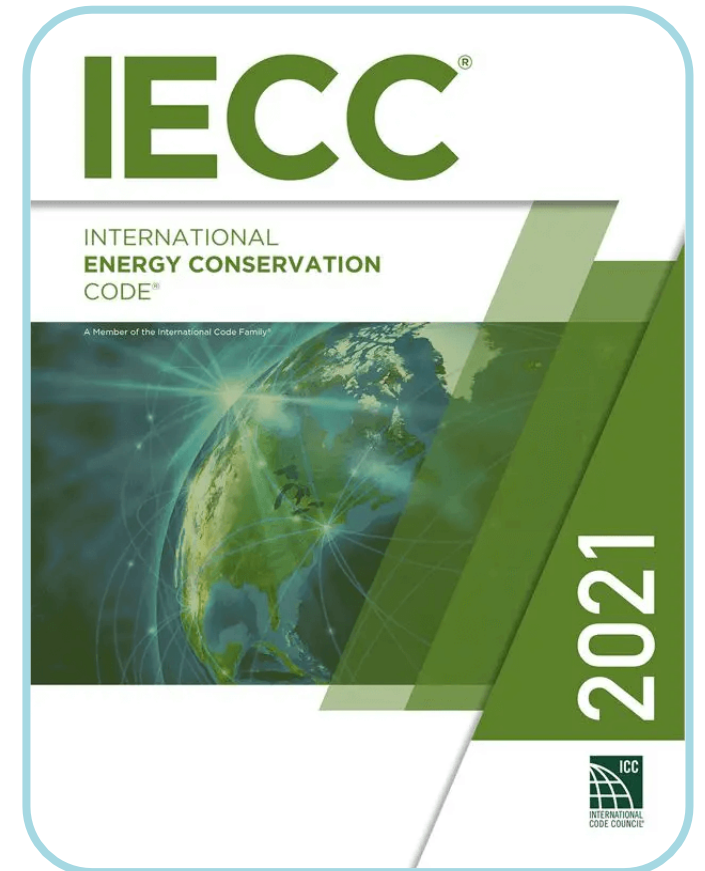
Appliance Standards Law

- Appliance Standards Law of 2022
- Set minimum energy and water efficiency requirements for certain products sold starting in 2023.
- The standards reduce energy and emissions by making sure that appliances sold in New Jersey are efficient.



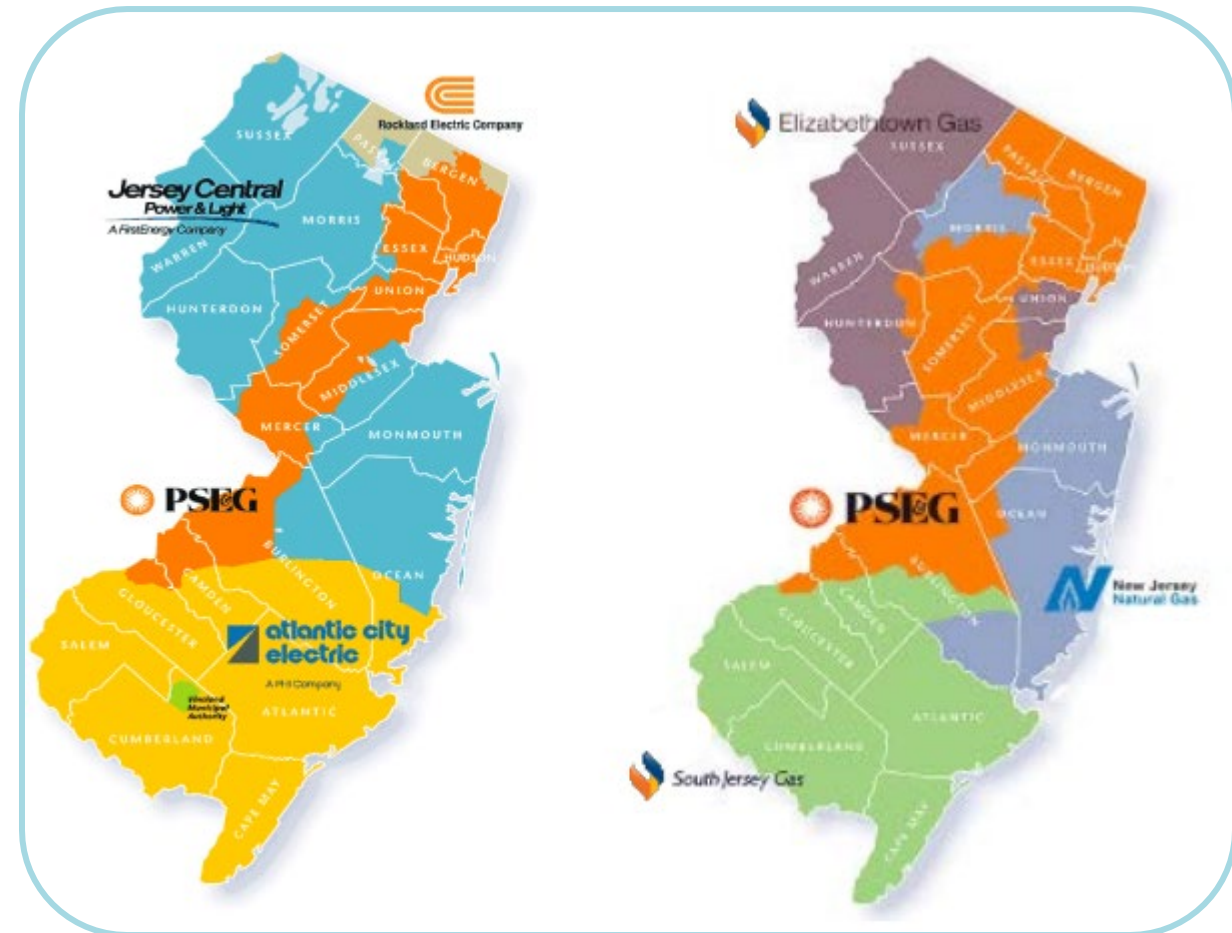
Building Energy Codes

- In 2022, New Jersey adopted stricter energy codes for new construction
- [ASHRAE Standard 90:1-2019](#)
 - Sets a minimum energy efficiency requirement for newly constructed commercial and high-rise residential buildings
- [2021 International Energy Conservation Code \(IECC\)](#)
 - Sets an energy compliance standard for newly constructed low-rise residential buildings

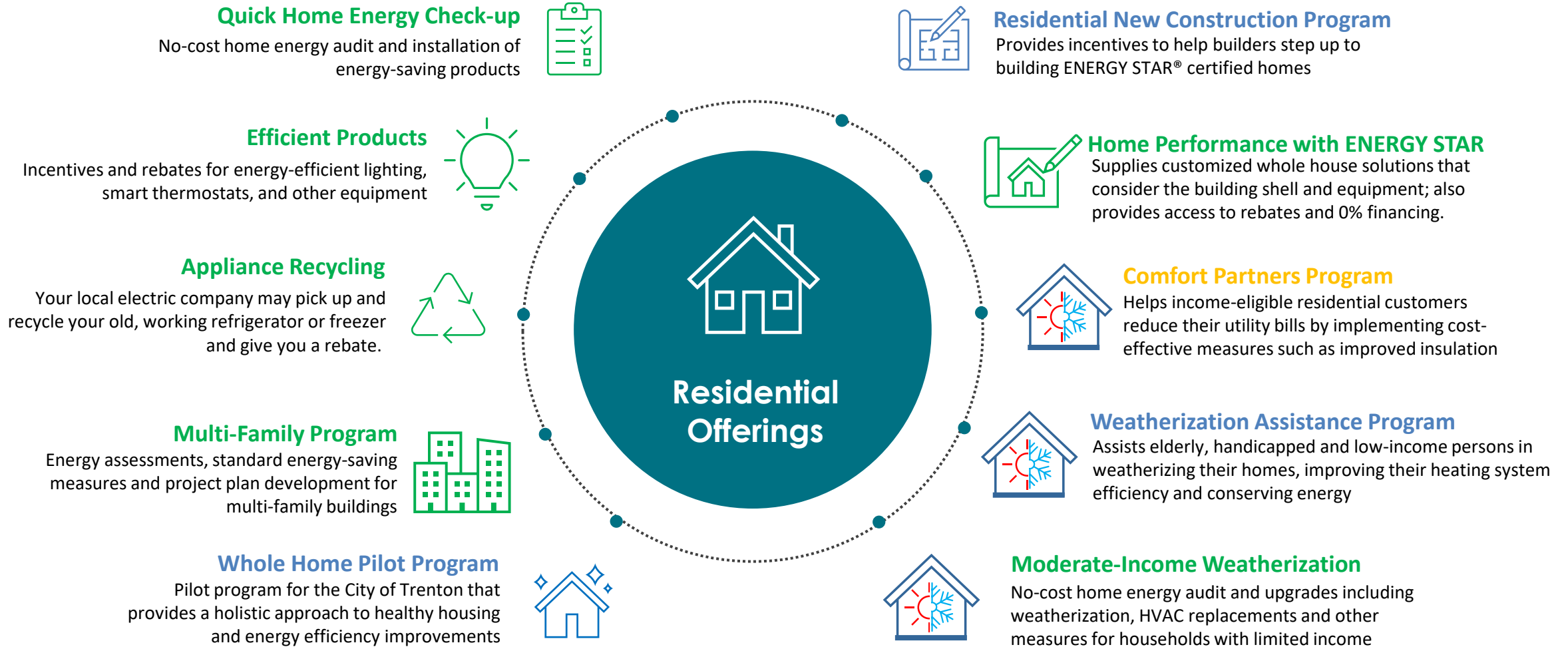


Energy Efficiency Program Transition

- Clean Energy Act of 2018:
 - Set energy efficiency targets for public natural gas and electric utilities
 - Transitioned implementation of many efficiency programs to the utilities
- In 2023, BPU directed utility programs to expand to include Building Decarbonization Start Up and Demand Response programs for January 2025- June 2027 program cycle



Incentive Programs - Residential



Blue = State Program

Green = Utility Program

Yellow = Co-Administered Program

More detail on each program can be found here: [Find A Program \(cepfindaprogram.com\)](https://www.cepfindaprogram.com)

Incentive Programs – Commercial & Industrial

New Construction Programs

The NJ Clean Energy Program offers programs to provide custom incentives for single or bundle multiple measures in new commercial, industrial, or multifamily buildings



Local Government Energy Audit

Offers free energy audits and cost-justified energy efficiency measures for local governments, higher education, and non-profit agencies



Direct Install

Provides turnkey solutions for small business customers. Eligible equipment includes LEDs, HVAC, and more



Engineered Solutions

A program for public service entities to target efficiency improvements. This program also provides services during project design and construction



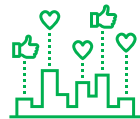
Prescriptive and Custom

Offers incentives and financing for energy efficient equipment and building shell improvements



Energy Management Program

A combination of programs that offer energy-saving measures such as tune-ups, diagnostic testing and installation of measures to improve performance



Commercial, Industrial
+ Institutional



Energy Savings Improvement Program

Provides government entities with funds to pay for energy-related improvements to their facilities using the value of energy savings that result from the improvements



Large Energy Users Program

Offers incentives for energy efficiency and combined heat and power/fuel cell projects



Higher Education Decarbonization Program

Pilot program focuses on incentivizing a broad scope of decarbonization strategies at colleges and universities



Commercial Property Assessed Clean Energy

Offers incentives and support for commercial buildings to invest in energy efficiency



Combined Heat and Power

Offers incentives for combined heat and power, waste heat to power, and fuel cell projects



Blue = State Program

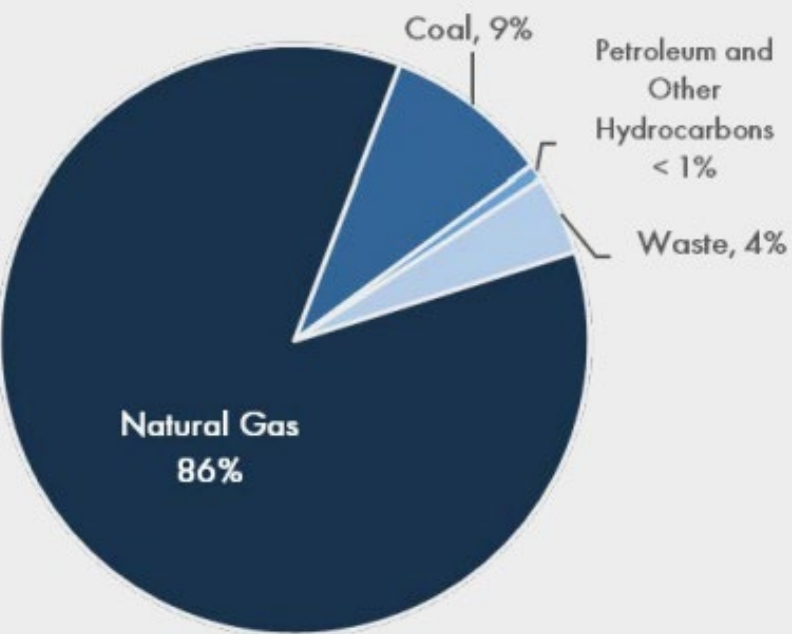
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Electric Generation Snapshot

Sources of In-State Electric Generation Emissions (2018)



GWRA 80x50 Report, Figure 3.2

Goals	Priority Reduction Pathways
EMP/80x50 Report: 100% Clean Energy by 2050	1. Reduce demand through energy efficiency
Clean Energy Act of 2018: 35% RPS by 2025 and 50% RPS by 2030	2. Transition from fossil fuel electric generation to renewable energy
E.O. 315: 100% Clean Electricity Sold in New Jersey by 2035	3. Procure out-of-state renewables

Context: In-State Energy Goals

In-state installed capacity goals by year (GW)

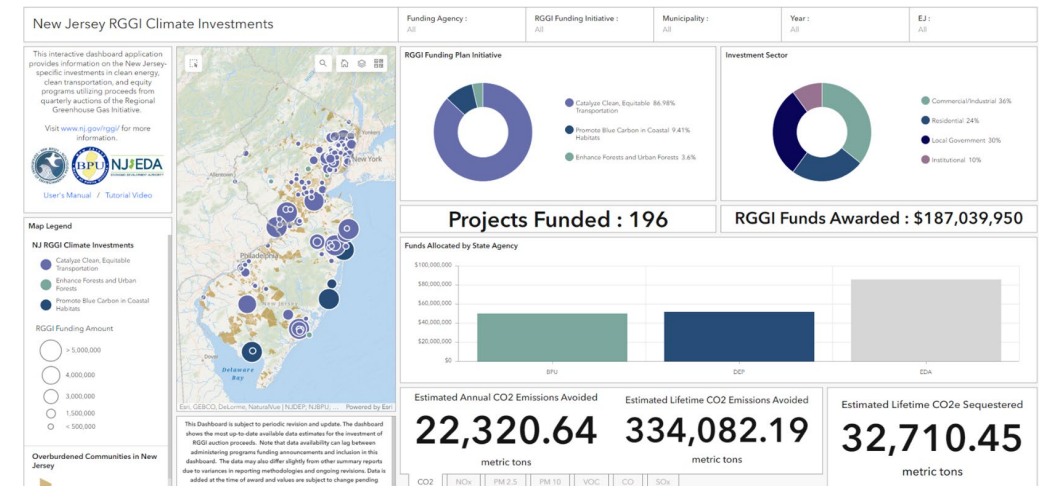
Resource Type	2020	2025	2030	2035	2040	2045	2050
NJ Solar	3.5	5.2	12.2	17.2	22.2	27.2	32.2
Offshore Wind	0	1.1	3.5	7.5	8.8	10.1	10.7
Nuclear	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Fossil Gas	11.7	10.1	10.7	10.8	12.4	13.7	0
Biogas, Biofuels and Hydrogen	0	0	0	0	0	0.3	17.6
Storage	0.6	1.6	2.5	2.5	2.5	5.2	8.7
Other ⁶	0.97	0.25	0.26	0.22	0.19	0.16	0.15
Total	20.3	21.8	32.7	41.7	49.6	60.2	72.9

Source: [NJDEP GWRA 80x50 Report](#)

The RGGI Program

Key Elements:

- CO₂ Emissions Reductions
- Fossil Electric Generators
- Interstate collaboration & state specific rules
- Cap & Invest



The Control and Prohibition of Carbon Dioxide Emissions Rule

- Published 1/3/23
- Applies to new and existing electric generating units
- January 2023 DEP established new rules:
 - Banning the combustion of No.4 and No. 6 fuel oil
 - Emissions limits for fossil fuel-fired electric generating units
- Compliance Options under development for (2027 & 2035 limits)

Regulated Units:

- At least 51% fossil fuel combustion
- Supplies at least 10% of annual gross output to grid
- Nameplate capacity of 25MWe or greater
- Emissions Limit (Table)
- Entities may request an extension under RMR Designation

Compliance Deadline for Existing EGUs	Emission Limit
June 1, 2024	1,700 lb CO ₂ /MWh gross energy output
June 1, 2027	1,300 lb CO ₂ /MWh gross energy output
June 1, 2035	1,000 lb CO ₂ /MWh gross energy output

Solar in New Jersey

[Solar Act of 2012](#)

- Established State's first Renewable Portfolio Standards
- Created Solar Renewable Energy Certificates (SRECs) to subsidize the cost of this new clean technology

[Clean Energy Act of 2018](#)

- Accelerated the solar RPS to 5.1%, which was attained in April 2020
- Triggered closure of the SREC program
- Established Community Solar PV Energy Pilot Program

[Solar Act of 2021](#)

- New short-term goal for solar of 3,750 MW of *new solar generation* by 2026
- Created new [Successor Solar Incentive Program \(SuSI\)](#) to provide incentives to achieve this goal

Other noteworthy Legislation:

- New Jersey Solar Panel Recycling Commission established August 2019
- Solar Ready Warehouses (40% of roof) established November 2021 (effective July 2022)



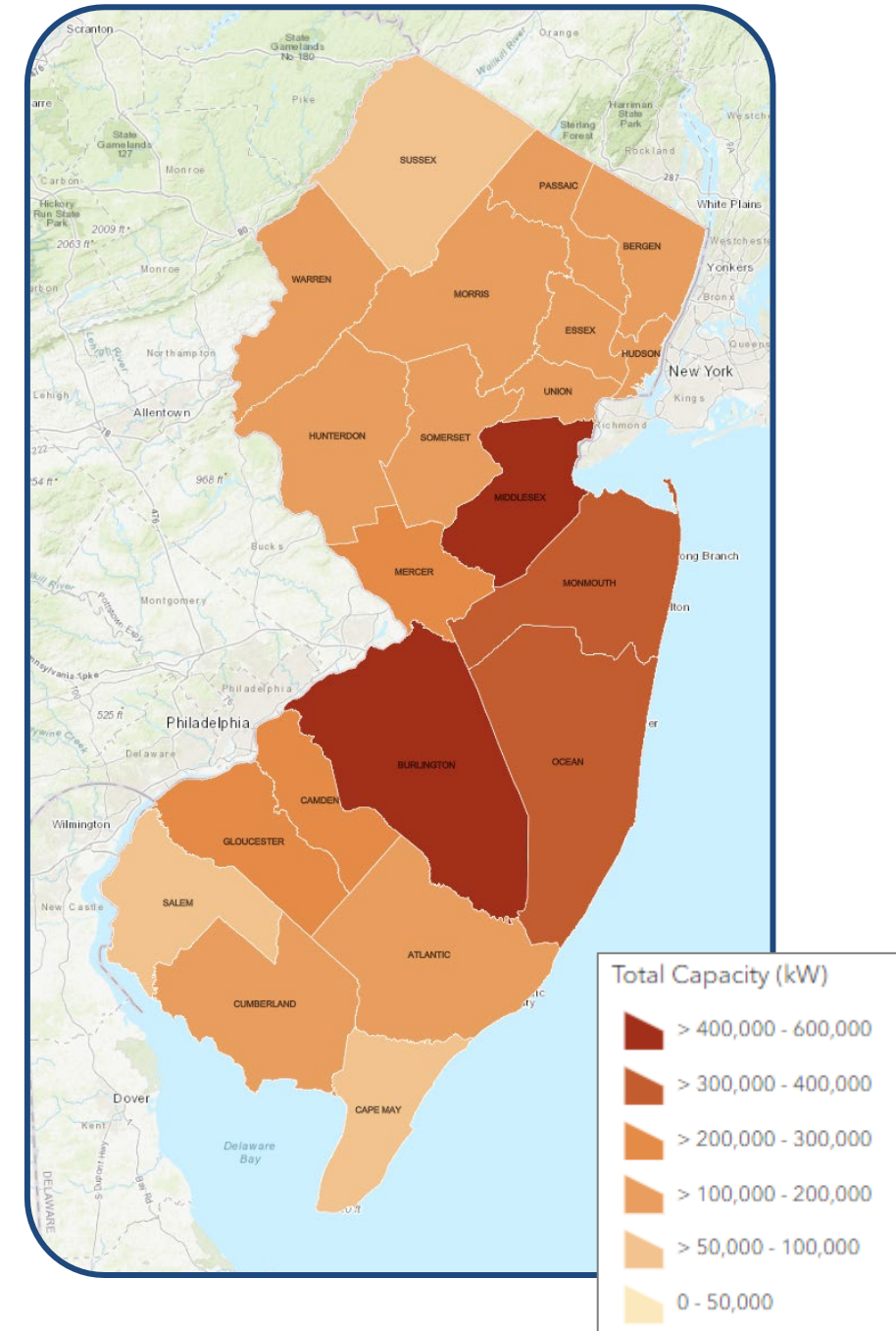
Solar in New Jersey

Close to 4.6 GW of installed capacity from more than 187,000 projects

New Jersey Solar Installations as of September 30, 2023

Interconnection Type	Project Quantity	Installed Capacity (kW)	% of Installed Capacity
Behind the Meter	187,225	3,711,997	8.87%
Grid Supply	191	815,013	17.6%
Community Solar	44	63,086	1.37%
Total	187,460	4,590,097	100%

Source: <https://njcleanenergy.com/renewable-energy/project-activity-reports/project-activity-reports>



Offshore Wind

- Current OSW Capacity Goal of 11,000 (E.O. 302)
- Solicitations 1 & 2 completed for a total of 3,758 MW
- Solicitation 3 currently underway
- State Agreement Approach (SAA)
- New Jersey Wind Port
- Research & Monitoring Initiative
- OSW Strategic Plan
- Despite Orsted announcement, NJ is moving forward to achieve OSW goals

Solicitation	Capacity Target (MW)	Capacity Awarded (MW)	Issue Date	Submittal Date	Award Date	Estimated COD
1	1,100	1,100	Q3 2018	Q4 2018	Q2 2019	2024-25
2	1,200 – 2,400	2,568	Q3 2020	Q4 2020	Q2 2021	2027-29
3	1,200		Q1 2023	Q2 2023	Q4 2023	2030
4	1,200		Q2 2024	Q1 2025	Q1 2025	2031
5	1,342		Q2 2026	Q1 2027	Q1 2027	2033
Total Awarded + Target		7,500				

Source: <https://www.njcleanenergy.com/renewable-energy/programs/nj-offshore-wind/solicitations>



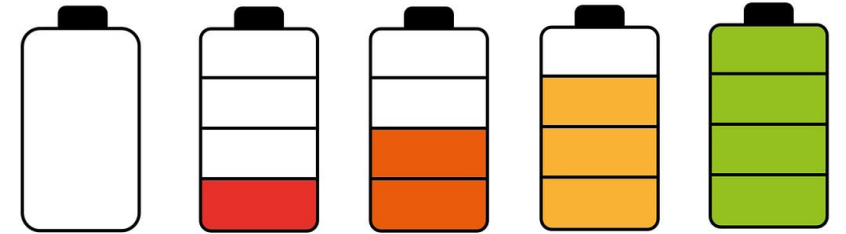
Energy Storage

Goal: 2,000 MW of installed energy storage by 2030

- September of 2022, NJBPU issued the New Jersey Storage Incentive Program (“NJ SIP”) Straw Proposal.
 - Straw proposed two programs, one combined with solar via Competitive Solar Incentive program and one stand-alone program.
- BPU issued a Request For Information (RFI) in September of 2023 to support revising the Straw proposal.
 - Revised Straw proposal expected spring 2024

Source:

<https://www.njcleanenergy.com/storage> & https://nj.gov/bpu/pdf/publicnotice/Notice_RFI_NJEnergyStorageIncentiveProgram_R9-11-23.pdf



Community Energy Plan Grant Program

- Launched in 2019 and managed by Sustainable Jersey.
- Provides support to municipalities to develop climate action plans at the local level.
- A Community Energy Plan establishes priority sustainable energy initiatives based on demonstrated effectiveness, unique local factors, and co-benefits, such as improved local air quality, energy savings for residents, and workforce development.



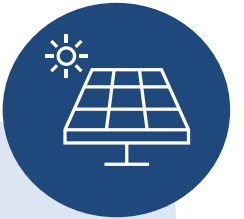
Potential Opportunities: Buildings & Electric Generation

Buildings



- Whole home upgrades, including weatherization, health and safety, etc.
- Heat pumps in residential properties
- Community-and campus-scale district thermal systems, building electrification and efficiency retrofits
- Neighborhood scale decarbonization planning
- Beneficial electrification programs for commercial properties
- Maximize energy efficiency of new construction
- Building Performance Standards

Electric Generation



- Integrated resource planning
- Community scale renewable energy planning
- Community Solar Projects
- Distribution Grid upgrades to reduce congestion
- Hydrogen Pilots
- Advanced microgrids
- Energy Storage projects - Fuel Cell and Battery Storage

Workforce development

- Training and apprenticeship programs





Thank you!

