



Community Energy Planning

New Jersey League of Municipalities Conference
November 16, 2022

IG: Sustainable_Jersey | Twitter: @SJ_Program and @SJ_Schools | FB: @SustainableJersey | LinkedIn: sustainable-jersey

Speakers

Presiding Mayor:

Helmin Caba

City of Perth Amboy

Charnette Frederic

Councilwoman, Irvington Township

Lauren Griffith

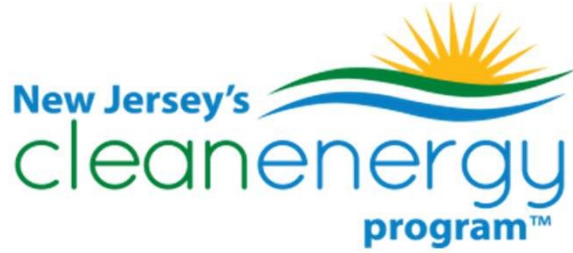
Climate Fellow, NJBPU

Nancy Quirk

Sr. Energy Program Manager, Sustainable Jersey

Joel Rosa

Administrative Analyst, City of Perth Amboy

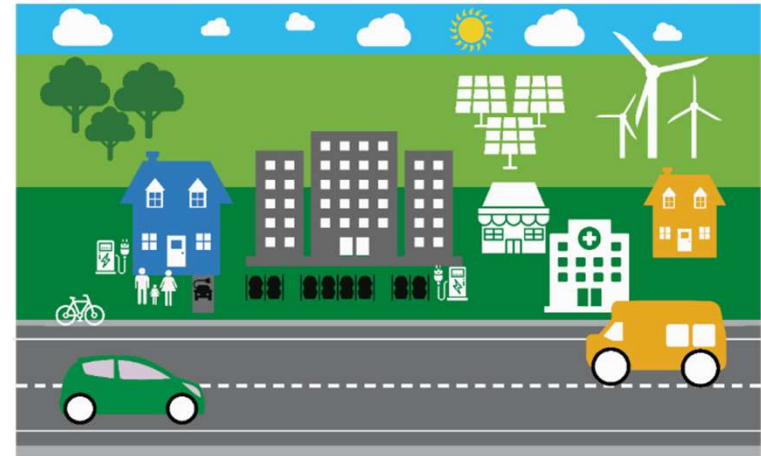


Community Energy Plan Grant Program

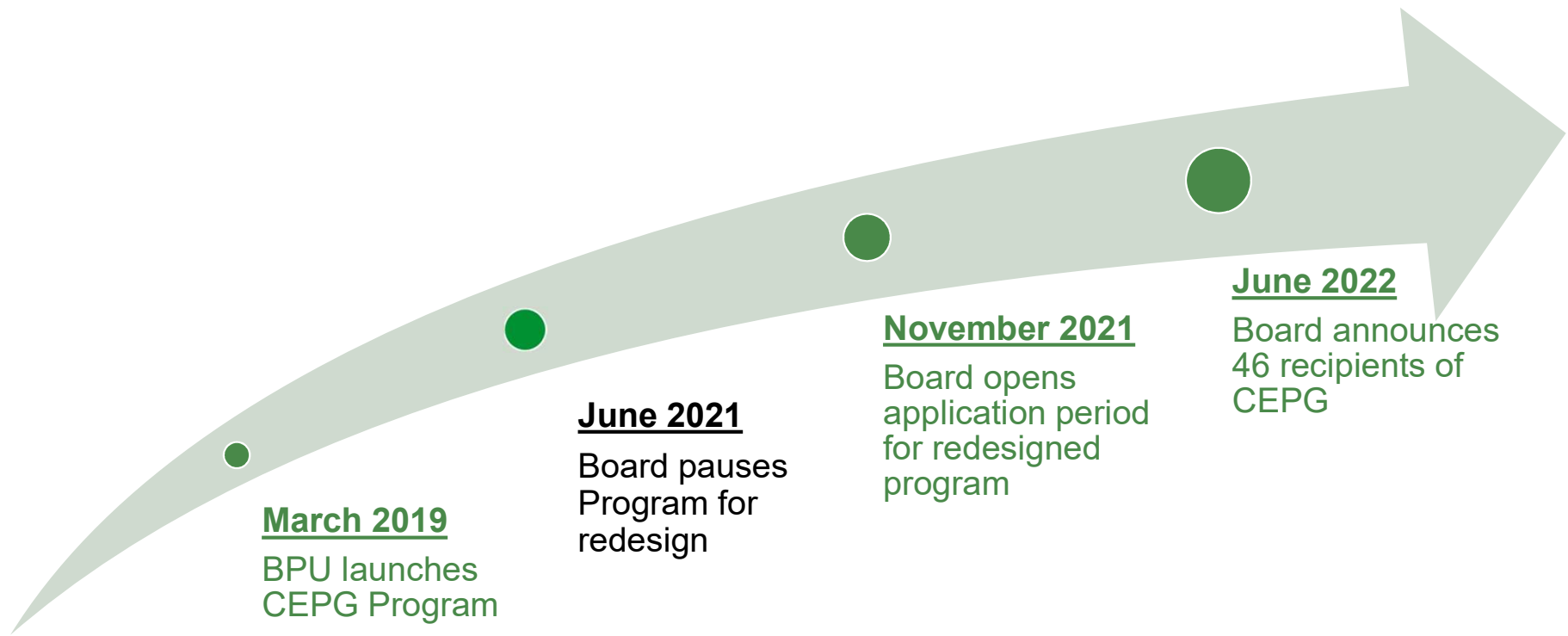


Community Energy Plan Grant (CEPG)

- Community-level action is essential to meet the Energy Master Plan goal of 100% clean energy by 2050. This program provides communities the opportunity to align local actions with EMP's goals.
- The CEPG Program supports municipal action on climate change, with specific focus on energy resilience, renewable energy, and energy efficiency.
- The CEPG Program was redesigned to better prioritize low- and moderate- income and overburdened communities.
- All New Jersey municipalities are eligible for \$10,000, with overburdened municipalities eligible for larger grants and enhanced support.



Timeline



Overburdened Municipalities

Overburdened Municipalities are eligible for additional support:

- Larger grant award of \$25,000 for community energy planning
- Outreach to identified Overburdened Municipalities to let them know about this grant opportunity
- Technical assistance to develop and submit applications for the CEP Grant
- Technical assistance in the creation of the Plan once the grant is awarded

Overburdened Municipalities

Municipality	County	Municipality	County
Asbury Park City	Monmouth	Millville City	Cumberland
Atlantic City	Atlantic	New Brunswick City	Middlesex
Bridgeton City	Cumberland	Newark City	Essex
Buena Boro	Atlantic	North Wildwood City	Cape May
Camden City	Camden	Passaic City	Passaic
Cape May Point Boro	Cape May	Paterson City	Passaic
Chesilhurst Boro	Camden	Paulsboro Boro	Gloucester
City of Orange Twp	Essex	Penns Grove Boro	Salem
Clementon Boro	Camden	Perth Amboy City	Middlesex
Commercial Twp	Cumberland	Phillipsburg Town	Warren
East Newark Boro	Hudson	Plainfield City	Union
East Orange City	Essex	Pleasantville City	Atlantic
Egg Harbor City	Atlantic	Prospect Park Boro	Passaic
Elizabeth City	Union	Salem City	Salem
Fairfield Twp	Cumberland	Seaside Heights Boro	Ocean
Flemington Boro	Hunterdon	Trenton City	Mercer
Freehold Boro	Monmouth	Union City	Hudson
Harrison Town	Hudson	Victory Gardens Boro	Morris
Hi-nella Boro	Camden	Vineland City	Cumberland
Irvington Twp	Essex	West New York Town	Hudson
Lakewood Twp	Ocean	Wildwood City	Cape May
Lindenwold Boro	Camden	Woodbine Boro	Cape May
Long Branch City	Monmouth	Woodlynne Boro	Camden
Maurice River Twp	Cumberland	Wrightstown Boro	Burlington

Grant Requirements

Once funds are received, grantees must complete the following:

1. Based on the strategies identified in the application, work to conduct an in-depth analysis of the EMP-based strategies using the Workplan Template to create the Community Energy Plan
2. Conduct a public meeting to engage the community in the creation of the Plan
3. Finalize the Plan through formal adoption by the municipal governing body and submit a copy of the completed Plan to the Board
4. Reporting requirements for the grant are dependent on the amount awarded:
 - a) \$10,000 grant: submit performance and expenditure report at the end of the eighteen (18) month grant term
 - b) \$25,000 grant: submit quarterly expenditure reports and a final performance and expenditure report at the end of the eighteen (18) month grant term



Irvington's Community Energy Plan



Charnette Frederic
Irvington Councilwoman
Irvington Green Chair

Content

Irvington Township

Irvington's Team

Irvington's Community Energy Plan

Summary/Conclusion

Irvington's Future Work

Irvington Township

Based on 2020 census
Population: 61,176

78.8%
Black

14.7%
Latino

1.6%
White



2.9 Square miles

Irvington's Leadership



Mayor Tony Vauss



Jamillah Z. Beasley
Council President



Dr. October Hudley,
1st Vice President



Charnette Frederic,
2nd Vice President



Darleen Browne
Council-at-Large



Sean C. Evans
East Ward Council



Orlander Glen Vick
North Ward Council



Vern Cox
West Ward Council

Irvington Green Team



Irvington Energy Planning Team



Jamel Holley
DPW Director



Althea Headley
QPA



Kyana Woolridge
Com. Dev. Dir.



Tracey Hendel-Woods
Research & Project
Specialist, Sustainable Jersey



Audrey Lyons
School Board Pres.



James Louis
Community Leader



Tenisha Malcolm-Wint
Community Leader



Satava Williams
Clerk Office

Irvington Green Team's Special Tribute

Harry Perryman



Irvington's Community Energy Plan Grant

RESOLUTION OF THE TOWNSHIP OF IRVINGTON, NJ

No. MC 22-0228-9 Date of Adoption FEBRUARY 28/2022

APPROVED AS TO FORM AND LEGALITY ON THE BASIS OF FACTS SET FORTH BY [Signature]
Legislative Research Officer

PRESENTED BY COUNCIL MEMBER FREDERIC SECONDED BY BEASLEY

**RESOLUTION AUTHORIZING THE APPLICATION TO THE
NJ CLEAN ENERGY PROGRAM COMMUNITY ENERGY PLANNING GRANT PROGRAM**

WHEREAS, a sustainable community seeks to ensure that its environmental, economic and social objectives are balanced and mutually supportive; and

WHEREAS, the Township of Irvington strives to assure clean land, air and water for current and future generations; and

WHEREAS, New Jersey's Energy Master Plan: Pathway to 2050 ("EMP") established that community-level action is necessary to achieve the state's goal of 100% clean energy by 2050; and

WHEREAS, the New Jersey Board of Public Utilities has created a Community Energy Plan Grant program for municipalities to develop a community energy plan to meet the goals of the state's Energy Master Plan; and

WHEREAS, the Township of Irvington is invested in developing a community energy plan to help the state achieve the goal of 100% clean energy by 2050; and

WHEREAS, the Community Energy Plan Grant program will help the Township of Irvington to plan for and invest in renewable energy and to work towards a better environment for all residents by using the state's Energy Master Plan (EMP) as a guide to develop sustainable strategies that increase clean energy production, reduce energy use, and cut emissions.

NOW THEREFORE BE IT RESOLVED BY THE TOWNSHIP OF IRVINGTON, that the Township Council of the Township of Irvington has determined that the Township of Irvington should apply for the aforementioned Community Energy Plan Grant program; and

BE IT FURTHER RESOLVED that the Township of Irvington will commit to providing staff support for the duration of the Community Energy Planning process, including for gathering of relevant data and for convening at least two public meetings; and

BE IT FURTHER RESOLVED that the Township Council of the Township of Irvington, State of New Jersey, authorizes the submission of the aforementioned application to the NJBPU Community Energy Plan Grant program.

RECORD OF COUNCIL VOTE

COUNCIL MEMBER	X = Indicates Vote				N.V. = No Vote				A.B. = Absent			
	YES	NO	N.V.	A.B.	YES	NO	N.V.	A.B.	YES	NO	N.V.	A.B.
BEASLEY	X											
COX	X											
EVANS	X											
FREDERIC, 2ND VICE PRESIDENT	X											
HUDLEY, 1ST VICE PRESIDENT						X						
VICK						X						
BURGESS, PRESIDENT												X

PRESIDENT OF COUNCIL [Signature] MUNICIPAL CLERK [Signature] DATE February 28, 2022

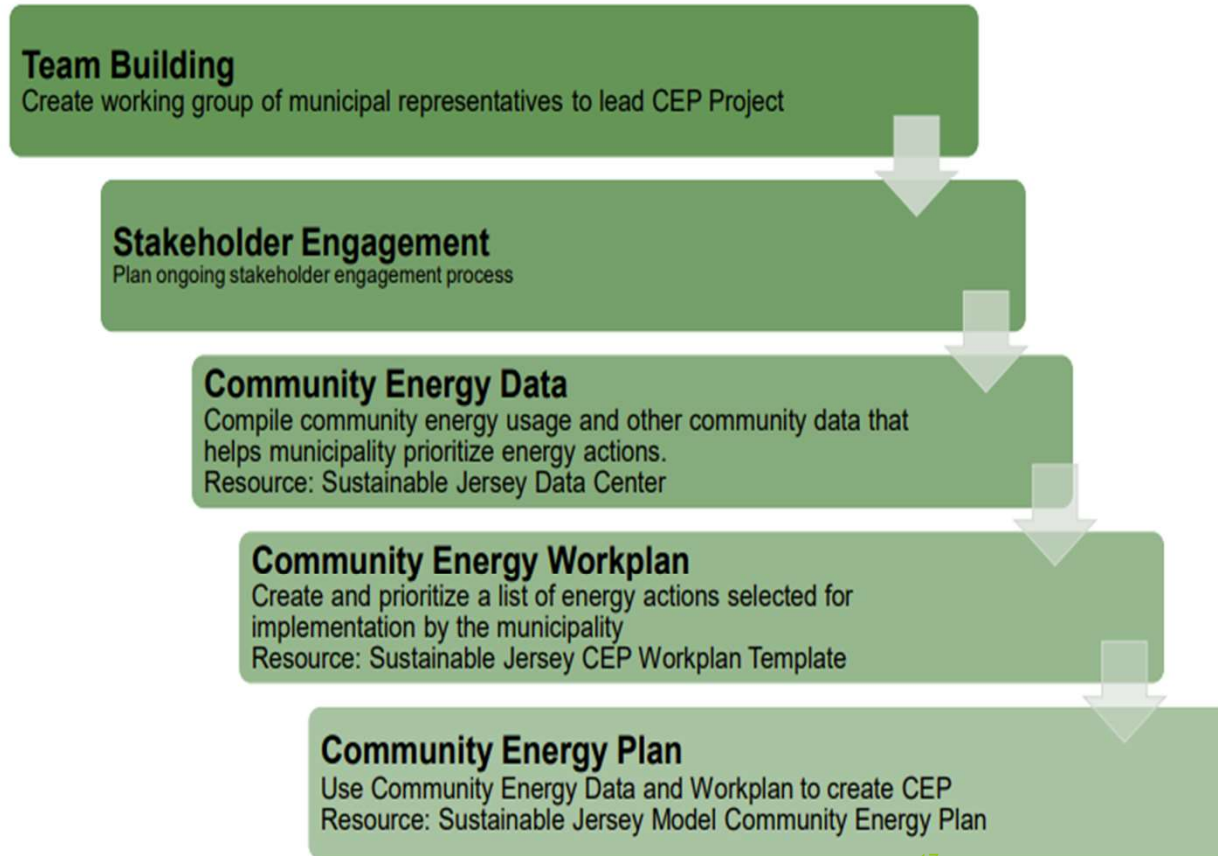
I hereby certify that the foregoing is a true copy of a Resolution duly adopted by the Municipal Council. In witness whereof I have hereunto set my hand and the Corporate Seal of the Township of Irvington.

MUNICIPAL CLERK [Signature] DATE FEB 28 2022

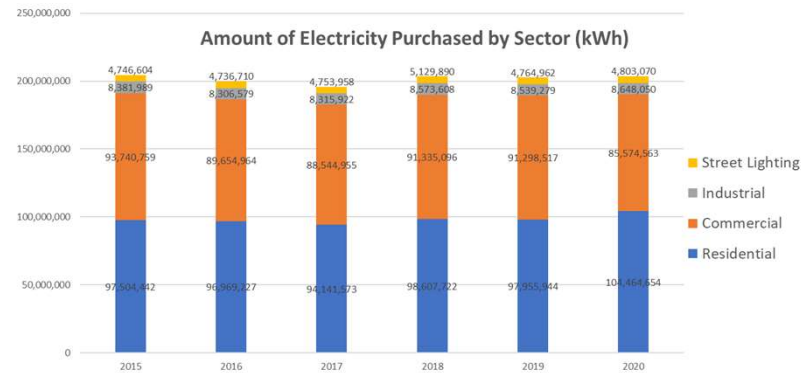
ADMINISTRATOR ASSESSOR BLDG CFO COLLECTOR COURT EDG ENGINEER FIRE-CP HEALTH HOUSING INIC
 JUDGE LEGAL LIBR LICEN MAYOR NPPC OCPD PARKS PAYROLL PUBLIC SAFETY QIR PUBLIC WORKS PURCHASING
 SEC-PB/ZBAD TRAFFIC ZONING-OFF DLGS GNCD OTHER(S):

- ▶ Once The Irvington Green Team is aware of the grant, our goal was to apply and provide all required information.
- ▶ Interesting Fact: Even though I am the Irvington Green Chair and a Councilwoman, I couldn't sign the application on behalf of the township
- ▶ The Green team in collaboration with the administration completed the application and did the submission

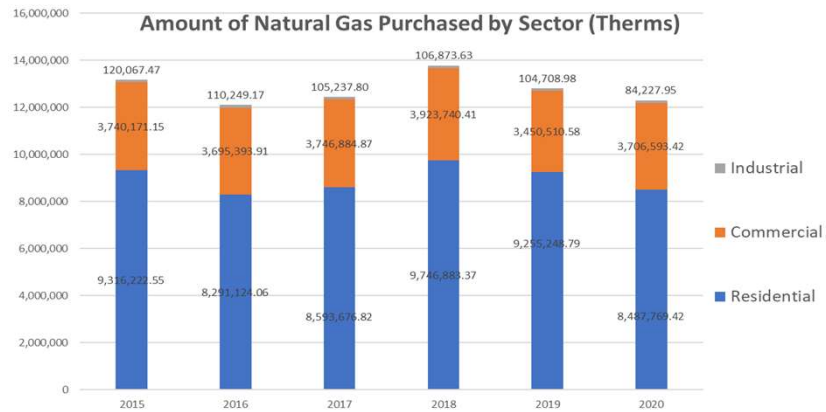
CEP Process



Electricity and Natural Gas Usage



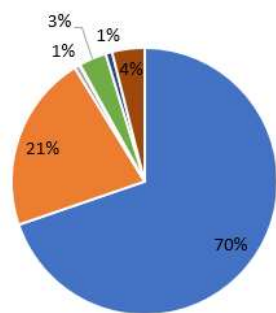
Amount of Electricity Purchased by Sector
Source: Sustainable Jersey. Aggregated Community-Scale Utility Energy Data



Amount of Natural Gas Purchased by Sector
Source: Sustainable Jersey. Aggregated Community-Scale Utility Energy Data

Transportation

Means of Transportation to Work

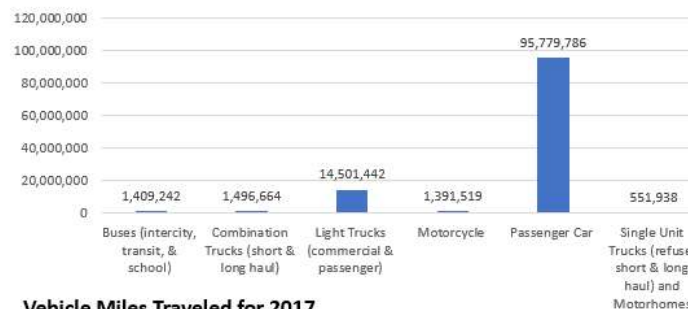


- Car, truck, or van
- Public transport
- Taxicab
- Motorcycle
- Bicycle
- Walked
- Other means
- Worked at home

Means of Transportation to Work 2020

Source: Sustainable Jersey. Community Profile Data.
Original Source: 2020 American Communities Survey

VMT Data by Vehicle Type



Vehicle Miles Traveled for 2017

Source: Sustainable Jersey. Vehicle Miles Travelled.
Original Source: NJTPA On-road VMT Data

Estimated Number of Vehicles and Electric Vehicles

Year Updated	Estimated Total Passenger Vehicles	# of EVs	% Electric
2015	20,693	0	0.00%
2020	22,268	21	0.09%

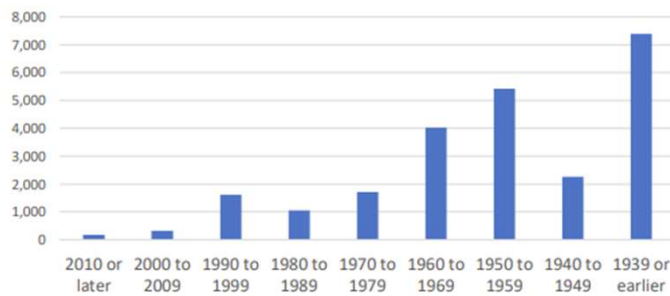
Estimated Number of Vehicles and Electric Vehicles.

Source: Sustainable Jersey. Electric Vehicle Ownership Data
Original Source: NJDEP Alternative Fuel Alternative Fueled Vehicles Report

Residential Energy Data

Households	Median Household Income	Percent of Population in Poverty	% Owner-occupied	% Renter-occupied
20,636	\$44,898	17.9%	28	72

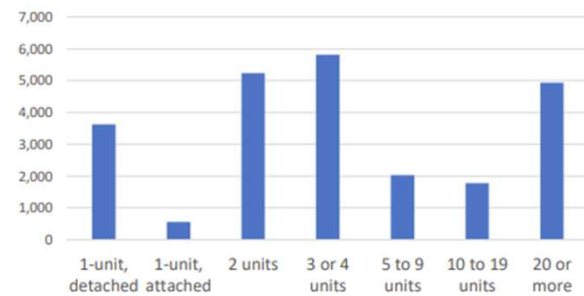
Current Housing Units by Year Built



Current Housing Units by Year Built

Source: Sustainable Jersey. Community Profile Data

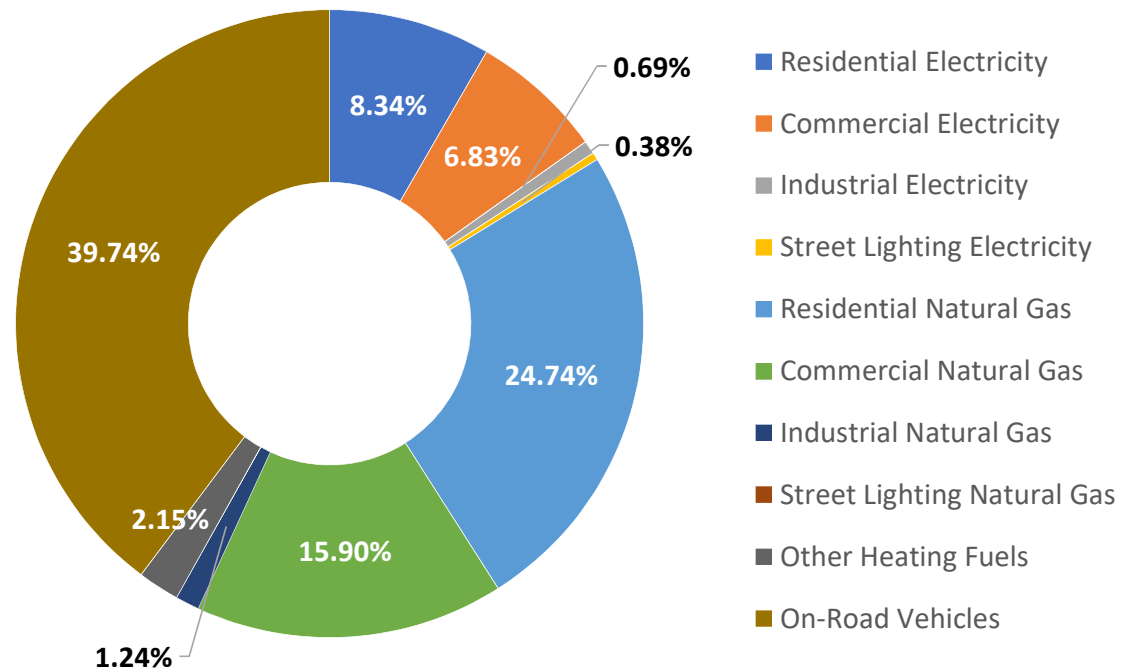
Units by Structure Type



Housing Units by Structure Type

Source: Sustainable Jersey. Community Profile Data

2020 Community-Scale Energy-Related GHG Emissions by Sector and Energy Type (MT CO₂e)



Overall GHG Emissions by Subsector

Source: Sustainable Jersey. Community-Scale Greenhouse Gas (GHG) Emissions Data

Initiative	Description	Project Lead
Transportation		
1.1	Adopt Supportive Zoning and Regulations for EV Infrastructure	Charnette Frederic and Kyana Woolridge
1.4	Purchase Alternative Fuel Vehicles	Jamel Holley
1.5	Improve Municipal Fleet Efficiency	Jamel Holley
1.6	Install Public EV Charging Infrastructure	Jamel Holley
Renewable Energy		
2.1	Adopt Supportive Zoning and Permitting for Private Solar	Charnette Frederic and Kyana Woolridge
2.2	Post Solar Permitting Checklist	Mussa Malik and Satava Williams
2.3	Adopt Zoning and Permitting for Community Solar	Charnette Frederic and Kyana Woolridge
2.6	Install On-Site Municipal Renewable Generation	Charnette Frederic
2.9	Institute a <u>Community-wide</u> Solar Purchasing Program	Althea Headley
2.11	Support Community Solar as Project Ambassador	Kyana Woolridge
2.11	Support Community Solar as Outreach Coordinator	Charnette Frederic
2.13	Host a Community Solar Project on Municipal Property	Kyana Woolridge
Energy Efficiency		
3.1	Upgrade Energy Efficiency for Municipal Facilities	Charnette Frederic and Jamel Holley
3.2	Residential EE	Green Team
3.3	Commercial Energy Efficiency Outreach Campaign	Green Team
Energy Usage from Building Sector		
4.3	Require Developers to Complete Green Development Checklist	Green Team
Community Energy Planning		
6.2	Conduct Energy Efficiency Outreach to Low- and Moderate-Income Residents	Green Team
6.3	Support Shared Mobility Programs	Jamel Holley

Future Work



Create a timeline for the Project lead to executing specific action items

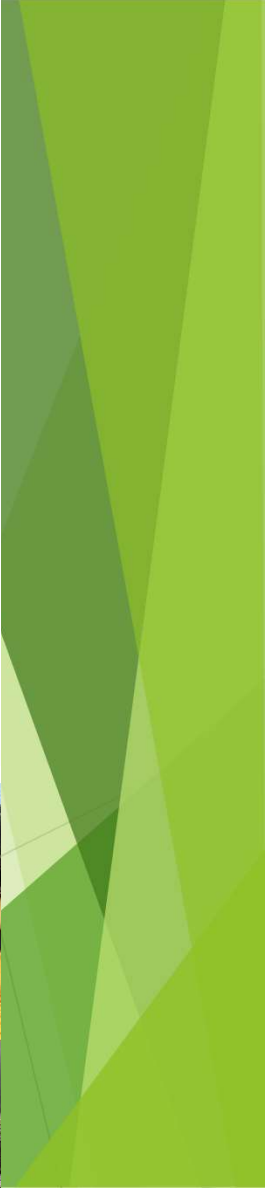


Create a list of organizations, community groups, and other stakeholders



Plan stakeholder engagement event





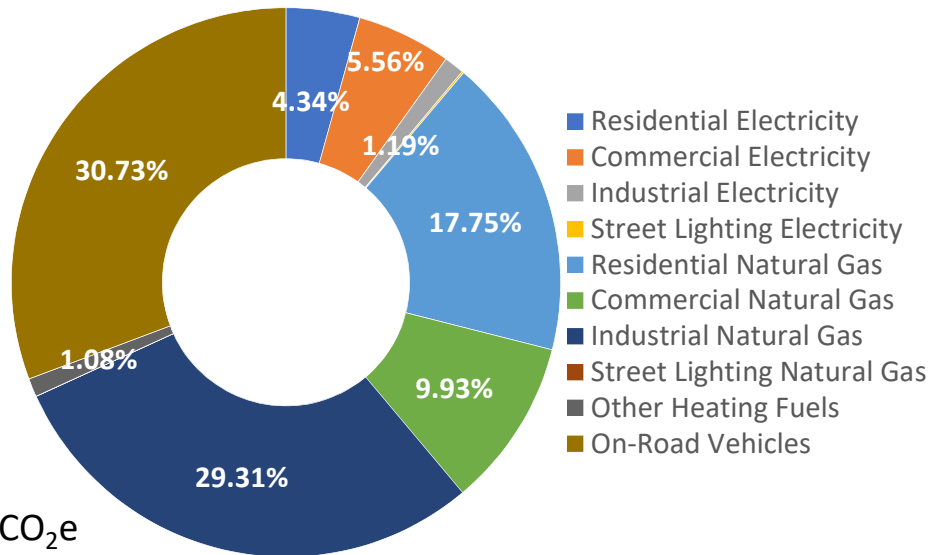


CEPG Team

- Michael E. Greene – Business Administrator
- Jill A. Goldy - CFO
- Lisett Lebron – Mayor’s Chief of Staff
- Daniel Cleaver – Buildings and Grounds Supervisor
- Tashi L. Vazquez – Director of and Economic and Community Development
- Matthew Nieves, Director of Public Works
- Joel Rosa - Administrative Analyst/Green Team Coordinator
- Christine Leary – Green Team Support
- Jeffrey Rauch, PE, CME, CFM Principal of Center State Engineering
- Noelia Colon, Business Improvement District

Perth Amboy's GHG Emissions by Sector

2020 Community-Scale Energy-Related GHG Emissions
by Sector and Energy Type (MT CO₂e)



Total GHG Emissions
521,505 metric tons CO₂e

- Perth Amboy's CEP Team used the Sustainable Jersey Data Center to collect data about where emissions in the municipality come from
- Industrial natural gas and on-Road vehicles are the two biggest sources

2020 Overall GHG Emissions by Subsector

Source: Sustainable Jersey. Community-Scale Greenhouse Gas (GHG) Emissions Data

CEPG Process

- Team is meets monthly with SJ Technical Assistance Rep to work through the Sustainable Jersey CEPG workplan template
- Data collected from SJ Data Center and CEPG input is used to identify priority initiatives

Priority initiatives identified (so far)

- Energy Upgrades to Municipal Facilities
- eMobility (Electric Shared mobility)
- Commercial/Industrial Energy Efficiency Outreach

Energy Upgrades to Municipal Facilities

- Team used SJ Data center to pull history of NJCEP incentives
- Working with Sustainable Jersey technical assistance program to identify new opportunities for energy upgrades

Municipal Buildings

Name	Street Address	Gross Sq. Ft.	Most recent energy efficiency upgrades
Alexander F. Jankowski Community Center	1 Olive Street	18,000	2014 Local Government Energy Audit
Animal Shelter	597 Fayette St	2,500	2014 Local Government Energy Audit 2018 C & I Retrofit
City Hall	260 High Street	20,475	2012 Direct Install 2014 Local Government Energy Audit 2018 C & I Retrofit
DPW	599 Fayette Street	18,039	2012 Direct Install 2018 C & I Retrofit
Perth Amboy Municipal Marina	260B Front St	5,000	2014 Local Government Energy Audit 2018 C & I Retrofit
Public Safety Complex - B	375 New Brunswick Ave	40,000	2014 Local Government Energy Audit 2018 C & I Retrofit
Public Safety Complex -A	365 New Brunswick Ave	140,000	2014 Local Government Energy Audit
Public Works Garage	599 Fayette St	12,000	2014 Local Government Energy Audit
Public Works Main Office	599 Fayette St	3,000	2014 Local Government Energy Audit

NJ CEP Incentive History for Perth Amboy's Municipal Buildings

Source: Sustainable Jersey. NJCEP Local Government Projects 2008-2021

Perth Amboy Moves

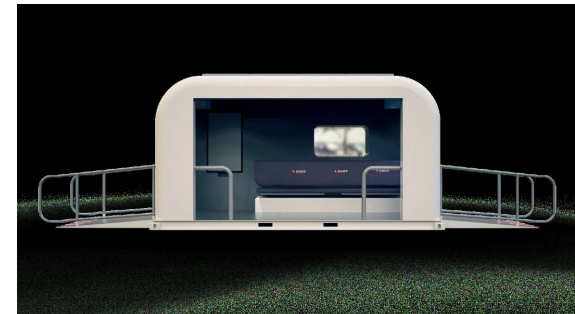
eMobility Initiatives

Why?

- It creates mobility for all!
 - Safe, equitable, affordable, sustainable, High quality

How?

Designed to operate within the community traveling and stopping between interconnecting Kiosks.



Perth Amboy Moves eMobility Initiative Example



At a Perth Amboy High School



At nearby Walmart

Commercial/Industrial Energy Efficiency Outreach

- CEPG team working to identify list of industrial property owners
 - Buckeye Terminals LLC
- Planning outreach to commercial and industrial businesses to share energy incentives programs and opportunities with businesses
 - Office of Economic and Community Development
 - Business Improvement District
 - Green Team
 - Community Stakeholders



Final Thoughts

The Perth Amboy CEPG

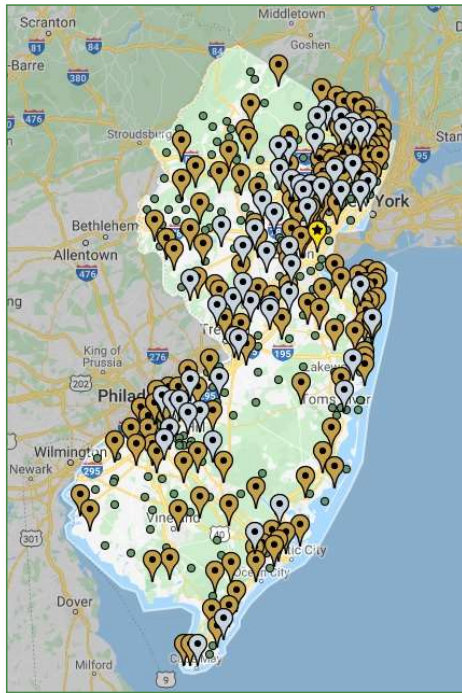
- Aligns Perth Amboy's Energy Plan with the State's Energy Master Plan
- Improves ability to receive energy improvement grants
- Prepares the City for Clean Energy upgrades
- Provides real data on the City's energy consumption
- Unites the community for clean energy initiatives
- Helps create solutions that impacts residents quality of life
- Identifies energy cost saving

Introducing Sustainable Jersey

- **Certification program** for municipalities and schools in New Jersey
- **Tools, resources, and guidance** to help municipalities and schools become more sustainable
- **Grants and funding** for municipalities and schools
- **Regional Hubs**



Sustainable Jersey Participants



Municipal Program



Schools Program

Schools Program

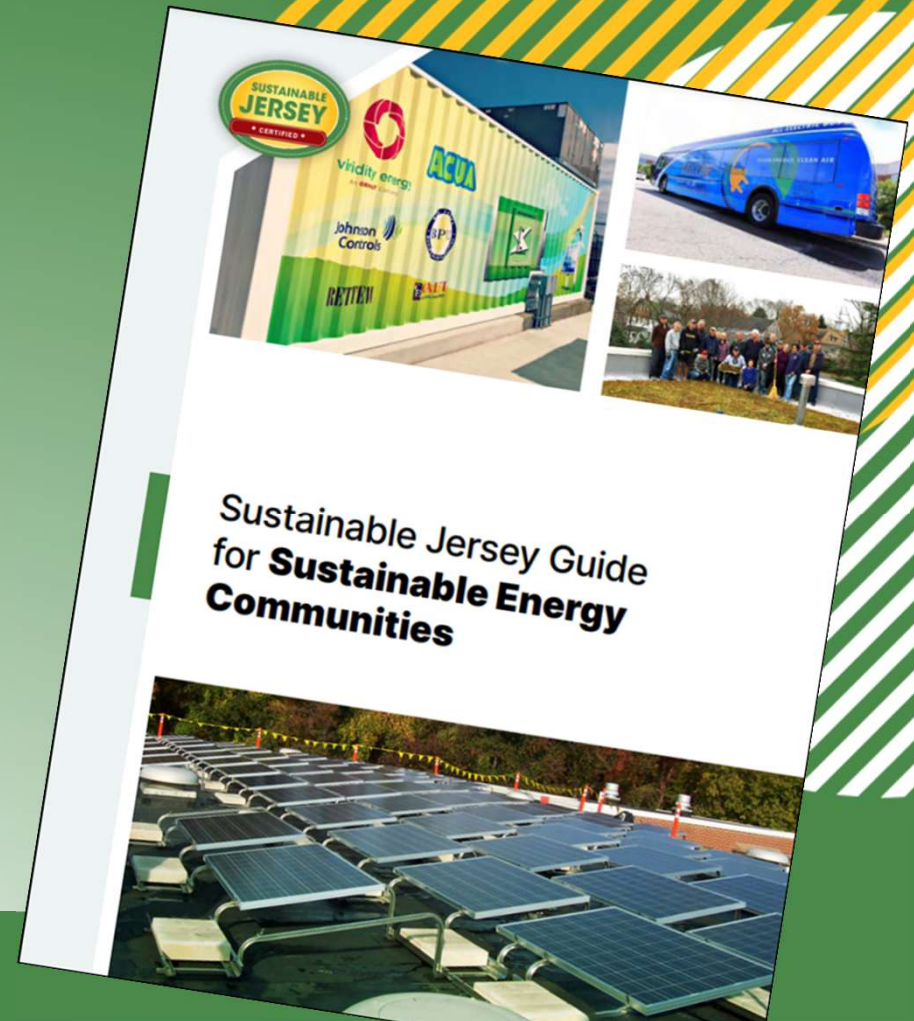
- 64% of NJ school districts participating
- 1056 schools participating
- 365 schools certified
 - 317 Bronze
 - 48 Silver

Municipal Program

- 82% municipalities participating
- 465 municipalities participating
- 221 Certified
 - 151 Bronze
 - 69 Silver



Community Energy Planning Resources



What is a Community Energy Plan?

A tool for prioritizing community initiatives in:

- Energy efficiency
 - Commercial, industrial, government
 - Residential, multifamily
- Transportation
 - Passenger vehicles
 - Government and business fleets
 - Infrastructure
- Renewable energy
 - Zoning and permitting
 - Outreach and education
 - Renewable Government Energy Aggregation

Community Energy Planning . . .

- . . . is a process that includes
 - municipal decision makers
 - community stakeholders
 - community education and outreach
- . . . helps organize to
 - reduce energy use
 - curtail greenhouse gas emissions
 - enhance energy resilience
- . . . provides a timeline for
 - implementation of key initiatives
 - identification of funding sources

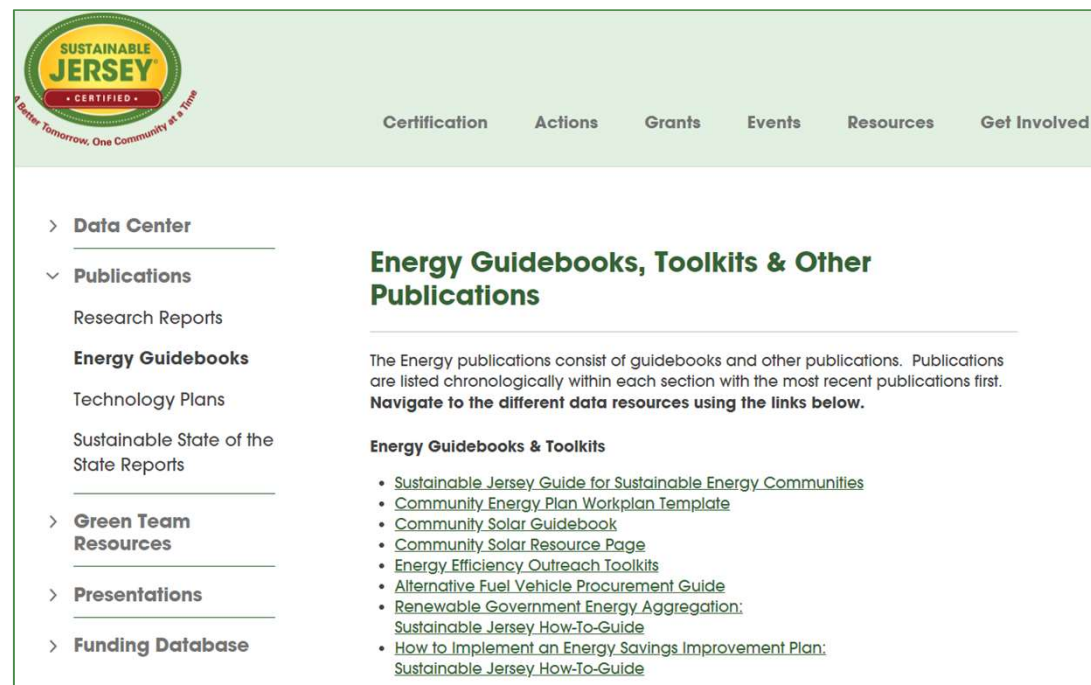
What's in a Community Energy Plan?

1. Introduction
2. Community Profile
3. Energy Related Data
4. Work Plan (Implementation Timeline)
 - Strategy 1: Transportation
 - Strategy 2: Renewable Energy/Distributed Energy Resources
 - Strategy 3: Energy Efficiency and Conservation
 - Strategy 4: Reduce Energy Consumption in Buildings
 - Strategy 6: Support Participation by LMI/EJ Communities
 - Strategy 7: Clean Energy Innovation Economy



Resources for Community Energy Planning

- Sustainable Jersey Data Center
- Sustainable Energy Communities Guide
- Community Energy Plan Workplan Template
- Community Energy Plan Guide



The screenshot shows the Sustainable Jersey website's Resources page. At the top left is the Sustainable Jersey logo with the tagline "Better Tomorrow. One Community at a Time". The navigation menu includes Certification, Actions, Grants, Events, Resources, and Get Involved. The left sidebar contains a menu with categories: Data Center, Publications (with sub-items: Research Reports, Energy Guidebooks, Technology Plans, Sustainable State of the State Reports), Green Team Resources, Presentations, and Funding Database. The main content area is titled "Energy Guidebooks, Toolkits & Other Publications" and includes a paragraph explaining that publications are listed chronologically. Below this is a section titled "Energy Guidebooks & Toolkits" with a list of links: Sustainable Jersey Guide for Sustainable Energy Communities, Community Energy Plan Workplan Template, Community Solar Guidebook, Community Solar Resource Page, Energy Efficiency Outreach Toolkits, Alternative Fuel Vehicle Procurement Guide, Renewable Government Energy Aggregation: Sustainable Jersey How-To-Guide, and How to Implement an Energy Savings Improvement Plan: Sustainable Jersey How-To-Guide.

sustainablejersey.com/resources/publications/energy-guidebooks/

How municipalities can help

4.1 Building Electrification

As the state's electricity grid becomes increasingly supplied by renewable resources, electrification becomes an increasingly effective carbon reduction strategy not only for transportation (see [Strategy 1](#)) but also for buildings, especially when the electricity supply contains a higher proportion of renewable electricity than the standard grid mix (e.g., from a [Renewable Government Energy Aggregation](#) or third party supply arrangement). Common forms of electrification include [heat pumps](#), electric water heaters, and electric kitchen appliances like stoves.

Municipalities can upgrade equipment in their facilities to electric, and promote [utility incentive programs](#) that include electrification measures, such as the equipment rebate programs.

Municipalities can also engage with the Board of Public Utilities and their local utility providers to work on developing rebate programs for electrification (an idea cited as a potential policy directive in New Jersey's Energy Master Plan). Such programs could follow the model of the Massachusetts HeatSmart program. Community leaders can meet with their local state representatives to explain the benefits of electrification, or get involved with the regulatory process for utilities (which can be tracked on the [NJBPU website](#)).

Case Study: HeatSmart Massachusetts

Massachusetts's Clean Energy Center (MassCEC) and Department of Energy Resources launched the HeatSmart Massachusetts program in 2018. Communities participating in the program encourage the adoption of clean heating and cooling technology, including heat pumps, wood heating, and solar hot water. Akin to a Solarize campaign, HeatSmart communities solicit bids from certified installers to offer discounted heating and cooling systems to community residents. The program facilitates the sharing of marketing strategies and materials between past and present participants. The program targets Massachusetts communities with a higher prevalence of high-cost heating fuels to realize the greatest financial savings (MassCEC, "HeatSmart").



Some utilities in New Jersey offer commissioning programs to commercial customers. Municipalities can participate in these programs themselves and/or promote these programs to eligible local entities. See the [local utilities' websites](#) for current offerings.

4.4 Energy Savings in New Construction

Implementing green design measures during construction can generate significant reductions in immediate and ongoing GHG emissions, often at a cheaper cost than retrofitting for energy efficiency at a later time. Green design can also add to a building's value, generating a rental and/or sale price premium, and create a better work environment, yielding greater productivity (IEA).

4.4.1 Ordinances and Outreach Targeting New Construction

A municipal Green Building Policy can encourage commercial and residential developers to use green design. For instance, these documents might suggest buildings be oriented for greatest solar potential and equipped with energy efficient HVAC systems. To ensure green design is considered, municipalities can adopt an ordinance requiring developers to submit a Green Development Checklist.

Municipalities can also promote NJCEP's programs for energy efficient new construction. The [Residential New Construction program](#) offers incentives and technical assistance to builders of new residential structures (and

For templates and recommendations for implementing these policies, see Sustainable Jersey's [Green Building Policy/Resolution](#) and [Create a Green Development Checklist](#) actions.

[NJCEP's Commercial New Construction program](#) consists of three programs with varying scope and potential for savings. The [SmartStart Buildings program](#) provides prescriptive and custom incentives for single energy efficiency measures. Developers can submit one application for several eligible measures via the [Custom Tailored Energy Efficiency Program \(CTEEP\)](#). For construction of buildings with 50,000+ square feet of planned conditioned space, NJCEP offers a comprehensive [Pay for Performance program](#).

In messaging about energy-efficient building design, municipalities can explain the multi-layered benefits of energy efficiency (see above), as well as the broader societal benefit of reducing air pollution, including greenhouse gases.

4.4.2 New Municipal Buildings as Model Green Buildings

Municipalities can reduce emissions from operations by building new municipal facilities to a high efficiency standard. A [Green Building Policy or Resolution](#) can specifically require green design for future municipal buildings, even specifying a minimum [LEED certification](#), for example. To achieve high efficiency in

Aggregated Community-Scale Utility Energy Data

June 2022

Utility Acronyms: ACE - Atlantic City Electric ETG - Elizabethtown Gas JCPL - Jersey Central Power & Electric MEU - Municipal Electric Utility
 NJNG - New Jersey Natural Gas PSEG - Public Service Electric and Gas RECO - Rockland County Electric SJG - South Jersey Gas

Municipality	County	Year	Utility	Residential Electricity	Commercial Electricity	Industrial Electricity	Street Lighting Electricity	Total Electricity	Utility	Residential Natural Gas	Commercial Natural Gas	Industrial Natural Gas	Street Lighting Natural Gas	Total Natural Gas
Carlstadt borough	Bergen	2017	PSEG	16,003,467	337,546,105	48,518,861	602,026	402,670,459	PSEG	1,767,415	3,857,967	2,372,147	NDA	7,997,529
Carlstadt borough	Bergen	2018	PSEG	16,696,343	294,097,371	99,208,020	631,416	410,633,150	PSEG	1,958,377	4,526,492	2,578,135	NDA	9,063,004
Carlstadt borough	Bergen	2019	PSEG	15,833,252	272,794,066	118,642,065	587,749	407,857,132	PSEG	1,893,197	4,198,176	2,490,196	NDA	8,581,569
Carlstadt borough	Bergen	2020	PSEG	16,624,547	268,515,129	106,453,463	642,780	392,235,919	PSEG	1,700,202	3,595,887	2,248,087	NDA	7,544,176
Carneys Point township	Salem	2015	ACE	21,788,842	30,763,872	3,870,753	310,737	56,733,204	ACE	N/A	N/A	N/A	N/A	N/A
Carneys Point township	Salem	2016	ACE	21,405,264	29,410,265	1,391,349	310,737	52,517,615	ACE	N/A	N/A	N/A	N/A	N/A
Carneys Point township	Salem	2017	ACE	19,969,761	27,541,916	2,498,524	312,583	49,922,784	ACE	N/A	N/A	N/A	N/A	N/A
Carneys Point township	Salem	2018	ACE	20,942,793	34,169,718	9,443,783	315,989	64,868,283	ACE	N/A	N/A	N/A	N/A	N/A
Carneys Point township	Salem	2019	ACE	20,477,912	33,609,789	1,921,136	324,171	64,332,908	ACE	N/A	N/A	N/A	N/A	N/A
Carneys Point township	Salem	2020	ACE	20,422,729	31,609,673	4,346,225	329,080	62,707,707	ACE	N/A	N/A	N/A	N/A	N/A
Carteret borough	Middlesex	2015	PSEG	59,610,310	136,159,546	102,781,862	1,650,658	390,102,376	PSEG	6,813,249	5,353,789	229,908	216,072	12,412,958
Carteret borough	Middlesex	2016	PSEG	63,775,672	137,880,596	106,303,585	1,705,067	408,664,920	PSEG	6,715,178	5,197,437	237,658	206,511	12,356,784
Carteret borough	Middlesex	2017	PSEG	62,317,207	145,485,992	105,198,586	1,731,457	414,733,242	PSEG	6,478,881	5,045,898	261,792	185,440	12,371,911
Carteret borough	Middlesex	2018	PSEG	60,239,886	152,637,389	111,286,807	1,781,177	425,945,059	PSEG	6,931,898	5,349,768	231,446	206,210	12,719,322
Carteret borough	Middlesex	2019	PSEG	66,573,025	146,390,665	116,301,221	1,770,179	430,035,090	PSEG	6,573,025	5,017,867	216,393	209,446	12,817,731
Carteret borough	Middlesex	2020	PSEG	59,253,127	154,003,790	114,091,210	1,754,777	429,042,904	PSEG	6,653,337	4,464,395	151,273	159,352	12,278,357
Cedar Grove township	Essex	2015	PSEG	43,753,318	38,452,240	4,736,274	1,176,077	88,117,909	PSEG	N/A	N/A	N/A	N/A	N/A
Cedar Grove township	Essex	2016	PSEG	42,917,578	36,744,713	4,624,869	1,158,087	85,445,247	PSEG	N/A	N/A	N/A	N/A	N/A
Cedar Grove township	Essex	2017	PSEG	41,115,187	36,521,790	4,668,591	1,090,417	83,395,985	PSEG	N/A	N/A	N/A	N/A	N/A
Cedar Grove township	Essex	2018	PSEG	43,672,401	37,767,875	5,124,948	1,192,505	87,757,729	PSEG	N/A	N/A	N/A	N/A	N/A
Cedar Grove township	Essex	2019	PSEG	41,474,204	36,194,213	5,063,404	1,261,298	84,993,219	PSEG	N/A	N/A	N/A	N/A	N/A
Cedar Grove township	Essex	2020	PSEG	44,207,263	33,320,789	4,742,969	1,212,322	83,583,343	PSEG	N/A	N/A	N/A	N/A	N/A
Chatham borough	Morris	2015	JCPL	30,330,190	25,112,130	438,381	345,618	56,226,329	JCPL	N/A	N/A	N/A	N/A	N/A
Chatham borough	Morris	2016	JCPL	NDA	NDA	NDA	NDA	NDA	JCPL	N/A	N/A	N/A	N/A	N/A
Chatham borough	Morris	2017	JCPL	NDA	NDA	NDA	NDA	NDA	JCPL	N/A	N/A	N/A	N/A	N/A
Chatham borough	Morris	2018	JCPL	NDA	NDA	NDA	NDA	NDA	JCPL	N/A	N/A	N/A	N/A	N/A
Chatham borough	Morris	2019	JCPL	NDA	NDA	NDA	NDA	NDA	JCPL	N/A	N/A	N/A	N/A	N/A
Chatham borough	Morris	2020	JCPL	NDA	NDA	NDA	NDA	NDA	JCPL	N/A	N/A	N/A	N/A	N/A
Grand Total										40,165,568	30,429,154	1,328,470	1,183,031	42,606,223

Municipality: Allentown borough, Monmouth Cour... <--- Select municipality here

Row Label	Residential	Commercial	Industrial	Street Lighting
2015	6,813,249	5,353,789	229,908	216,072
2016	6,715,178	5,197,437	237,658	206,511
2017	6,478,881	5,045,898	261,792	185,440
2018	6,931,898	5,349,768	231,446	206,210
2019	6,573,025	5,017,867	216,393	209,446
2020	6,653,337	4,464,395	151,273	159,352
Grand Total	40,165,568	30,429,154	1,328,470	1,183,031



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Community-Scale Greenhouse Gas (GHG) Emissions - Metric Ton Carbon Dioxide Equivalent (MTCO2e)

June 2022

Municipality	County	Year	Residential Electricity	Commercial Electricity	Industrial Electricity	Street Lighting Electricity	Residential Natural Gas	Commercial Natural Gas	Industrial Natural Gas	Street Lighting Natural Gas	Other Heating Fuels	On-Road Vehicles	Total MTCO2e
Aberdeen township	Monmouth	2015	21,189	11,212	558	274	28,223	6,850	CWC	NDA	1,516	49,605	119,427
Absecon city	Atlantic	2015	16,368	19,364	NDA	168	8,840	18,884	NDA	NDA	1,247	164,679	229,551
Alexandria township	Hunterdon	2015	8,587	2,181	7	9	NDA	NDA	NDA	NDA	10,782	19,086	40,652
Allamuchy township	Warren	2015	7,507	2,488	318	59	7,584	262	NDA	NDA	2,955	18,071	39,244
Allendale borough	Bergen	2015	10,265	10,624	NDA	NDA	19,302	6,786	210	NDA	764	27,772	75,725
Allenhurst borough	Monmouth	2015	1,784	1,972	7	33	3,038	465	CWC	NDA	111	1,488	8,898
Allentown borough	Monmouth	2015	2,467	1,939	83	78	3,099	1,412	34	NDA	728	4,314	14,155
Alloway township	Salem	2015	4,661	1,214	NDA	27	944	NDA	NDA	NDA	9,975	9,783	26,604
Alpha borough	Warren	2015	3,004	6,187	749	18	1,971	1,338	NDA	NDA	2,827	10,647	26,741
Alpine borough	Bergen	2015	7,594	NDA	NDA	NDA	12,648	779	NDA	NDA	75	6,379	27,474
Andover borough	Sussex	2015	1,115	962	26								
Andover township	Sussex	2015	9,698	4,870	324								
Asbury Park city	Monmouth	2015	12,881	21,040	1,107								
Atlantic City city	Atlantic	2015	32,046	291,291	14								
Atlantic Highlands borough	Monmouth	2015	6,909	4,039	42								
Audubon borough	Camden	2015	10,740	8,843	41								
Audubon Park borough	Camden	2015	NDA	NDA	NDA								
Avalon borough	Cape May	2015	16,437	5,773	NDA								
Avon-by-the-Sea borough	Monmouth	2015	3,306	1,203	53								
Barnegat Light borough	Ocean	2015	NDA	NDA	NDA								
Barnegat township	Ocean	2015	35,803	10,821	173								
Barrington borough	Camden	2015	8,433	7,434	77								
Bass River township	Burlington	2015	2,412	1,297	1,817								
Bay Head borough	Ocean	2015	3,372	1,212	2,040								
Bayonne city	Hudson	2015	52,156	58,008	11,571								
Beach Haven borough	Ocean	2015	19,804	6,017	11								
Beachwood borough	Ocean	2015	13,805	2,553	81								
Bedminster township	Somerset	2015	12,868	30,782	174								
Belleville township	Essex	2015	30,925	27,496	1,913								

Municipality: Aberdeen township, Monmouth County

2015 MTCO2e by sector

Residential Electricity	21,189
Commercial Electricity	11,212
Industrial Electricity	558
Street Lighting Electricity	274
Residential Natural Gas	28,223
Commercial Natural Gas	6,850
Industrial Natural Gas	0
Street Lighting Natural Gas	0
Other Heating Fuels	1,516
On-Road Vehicles	49,605

Overall 2015 GHG Emissions MT CO2e (By Sector and Energy Type)

Sector/Energy Type	Percentage
On-Road Vehicles	41.54%
Residential Natural Gas	23.63%
Commercial Electricity	9.39%
Other Heating Fuels	5.74%
Residential Electricity	1.27%
Industrial Electricity	0.47%
Street Lighting Electricity	0.23%
Commercial Natural Gas	0.23%
Industrial Natural Gas	0.23%
Street Lighting Natural Gas	0.23%

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A SUSTAINABLE JERSEY GUIDE

Community Energy Plan Workplan Template



Community Energy Plan Workplan Template

Strategy 3: Maximize Energy Efficiency and Conservation and Reduce Peak Demand
3.1 Upgrade Energy Efficiency in Municipal Facilities
3.2 Residential Energy Efficiency Outreach Campaign
3.3 Commercial Energy Efficiency Outreach Campaign
3.4 Conduct Energy Efficiency Outreach to Large Energy Users
Strategy 4: Reduce Energy Consumption and Emissions from the Building Sector
4.1 Construct New Municipal Buildings as Model Green Buildings
4.2 Encourage Benchmarking and Commissioning for Existing Buildings
4.3 Require Developers to Complete Green Development Checklist
4.4 Conduct Outreach Targeting New Construction in the Community
Strategy 6: Support Community Energy Planning and Action with an Emphasis on Encouraging and Supporting Participation by Low- and Moderate-Income and Environmental Justice Communities
6.1 Make Community Energy Planning Inclusive
6.2 Conduct Energy Efficiency Outreach to Low- and Moderate-Income Residents
6.3 Support Shared Mobility Programs
6.4 Support Low- and Moderate-Income Community Solar Subscriptions
6.5 Conduct Energy Efficiency Outreach to Community-Serving Institutions

Workplan Template Checklist

2.9 Institute a Community-wide Solar Purchasing Program

IMPACT:

DIFFICULTY:

CHECK IF DOING:

Partner with solar installers or a solar marketplace to offer special pricing on solar installations to residents and/or businesses for a limited time. Establish the partner solar installer(s) and special pricing via RFP process, then advertise the offering to the community. Alternatively, partner with a competitive online solar marketplace to offer residents a custom online webpage to receive quotes.

Measures of Success

- 5% of residents receive quotes for solar installations
- 2% of residents install solar as part of the campaign

Resources

- Sustainable Jersey's [Solar Outreach](#) action
- NREL's [Solarize Guidebook](#)

Potential Stakeholders

<ul style="list-style-type: none"> Local solar developer(s) Service organizations 	<ul style="list-style-type: none"> Local media Homeowners associations
---	--

4.4 Conduct Outreach Targeting New Construction in the Community

IMPACT:

DIFFICULTY:

CHECK IF DOING:

Reach out to developers to encourage participation in NJCEP's New Construction Energy Efficiency incentive programs.

Measures of Success

- Information on NJCEP's [New Construction Energy Efficiency](#) incentive programs distributed via multiple mediums
- Major new development utilizes NJCEP program(s)

Resources

- NJCEP's [New Construction Energy Efficiency](#) website

Potential Stakeholders

- Builders trade associations (e.g., U.S. Green Building Council)
- Building architects and developers
- Financial institutions

Comments/Rationale for NOT including this Initiative:

Municipal Energy Actions

	Energy Efficiency	Renewable Energy	Alternative Fuel Vehicles
Municipal Operations	<ul style="list-style-type: none"> • Energy Efficiency for Municipal Facilities • Energy Tracking and Management 	<ul style="list-style-type: none"> • On-Site Geothermal • On-Site Solar +10 pt storage/resilience +5 pt solar thermal • On-Site Wind • Buy Renewable Energy 	<ul style="list-style-type: none"> • Fleet Inventory • Purchase Alternative Fuel Vehicles • Meet Green Fleet Targets
Community Energy Use	<ul style="list-style-type: none"> • Energy Assistance Outreach • Commercial Energy Efficiency Outreach • Residential Energy Efficiency Outreach 	<ul style="list-style-type: none"> • Make Your Town Solar Friendly • Municipally Supported Community Solar • Solar Outreach • Renewable Government Energy Aggregation (R-GEA) 	<ul style="list-style-type: none"> • Make Your Town Electric Vehicle (EV) Friendly • Public EV Chargers • Electric Vehicle Outreach

Workplan Planning Template

Initiative lead:		Initiative start date:		Priority for muni:	
Anticipated initiative length:		Anticipated funding sources:			
Departments involved:			Obstacles/Barriers:		
Community notes (include current status, selected measure of success):			Next steps: (specific and tangible):		

Completed Planning Template

EMP Strategy: 4: Reduce Energy Use from the Building Sector	Initiative: 4.4 Conduct Outreach Targeting New Construction	
Initiative lead: Environmental Commission	Initiative start date: 12/2023	Priority for muni: Medium
Anticipated initiative length: 1 year	Anticipated funding sources: N/A	
Departments involved:	Obstacles/Barriers:	
<ul style="list-style-type: none"> - Building Department / Code Enforcement - Mayor's Office - Office of Economic Development 	<ul style="list-style-type: none"> - None anticipated 	
Community notes (include current status, selected measure of success):	Next steps: (specific and tangible):	
<ul style="list-style-type: none"> - Township does not currently perform any outreach on new construction energy efficiency - Township has several new residential developments proposed or in progress - Success will be measured in number of new construction projects that utilize New Jersey's Clean Energy Program incentives for the years that follow outreach. The Environmental Commission seeks to double the annual number of applications to New Construction incentive programs for buildings in the township 	<ol style="list-style-type: none"> 1. Environmental Commission will gather and organize outreach materials on the topic of energy efficiency in new construction. 2. Environmental Commission will set meeting with New Jersey's Clean Energy Program staff to create an outreach paln. 3. Environmental Commission will delegate outreach to Building Department, Mayor's Office, and Office of Economic Development. 4. Environmental Commission will coordinate with New Jersey's Clean Energy Program and municipal staff to host an informational event for local developers. 	



Thank you!

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Technical Assistance for Energy Initiatives

- Review current energy use
 - Utility billing data
 - Energy tracking
- Apply for utility and NJCEP incentives
- Submit for SJ certification points
- Community Energy Planning



SJ-PSE&G Partnership Program



Three tracks

- Technical Assistance (TA)
- Residential Energy Efficiency Outreach Campaign
- Commercial Energy Efficiency Outreach Campaign

Customized Outreach tools

- Video
- Outreach campaign website
- PSE&G giveaways

- Robust TA and implementation support for upgrading municipal buildings
- Technical and financial support for community outreach campaigns
- Sustainable Jersey points

Sign up today at Booth # 103



SUSTAINABLE JERSEY GRANTS PROGRAM



PSEG
Foundation

New Funding Cycle Announced!

- \$200,000 available for NJ municipalities participating in Sustainable Jersey
- \$2k, \$10k, and \$20k grants for sustainability projects and green team support

Informational Webinar

1-2pm
Thursday
December 8, 2022

Application Deadline

Friday
February 10, 2023

Award Notifications

By **early April 2023** with an event in **early May 2023**

Performance Period

10k Grants:
18 months
2k Grants:
12 months

Learn More & Apply



Sustainable Jersey Underwriters and Sponsors

Program Underwriters



Grant Program Underwriters



Corporate Sponsors



Thank You!

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