



Commit Your Town to Climate Progress: Go for the Sustainable Jersey Gold Star in Energy

Sustainable Jersey Webinar

June 28, 2017

Speakers



Melanie McDermott, Senior Researcher
Sustainability Institute at TCNJ



Tony O'Donnell, Economist
Sustainability Institute at TCNJ



Nancy Quirk, Energy Program Manager
Sustainability Institute at TCNJ

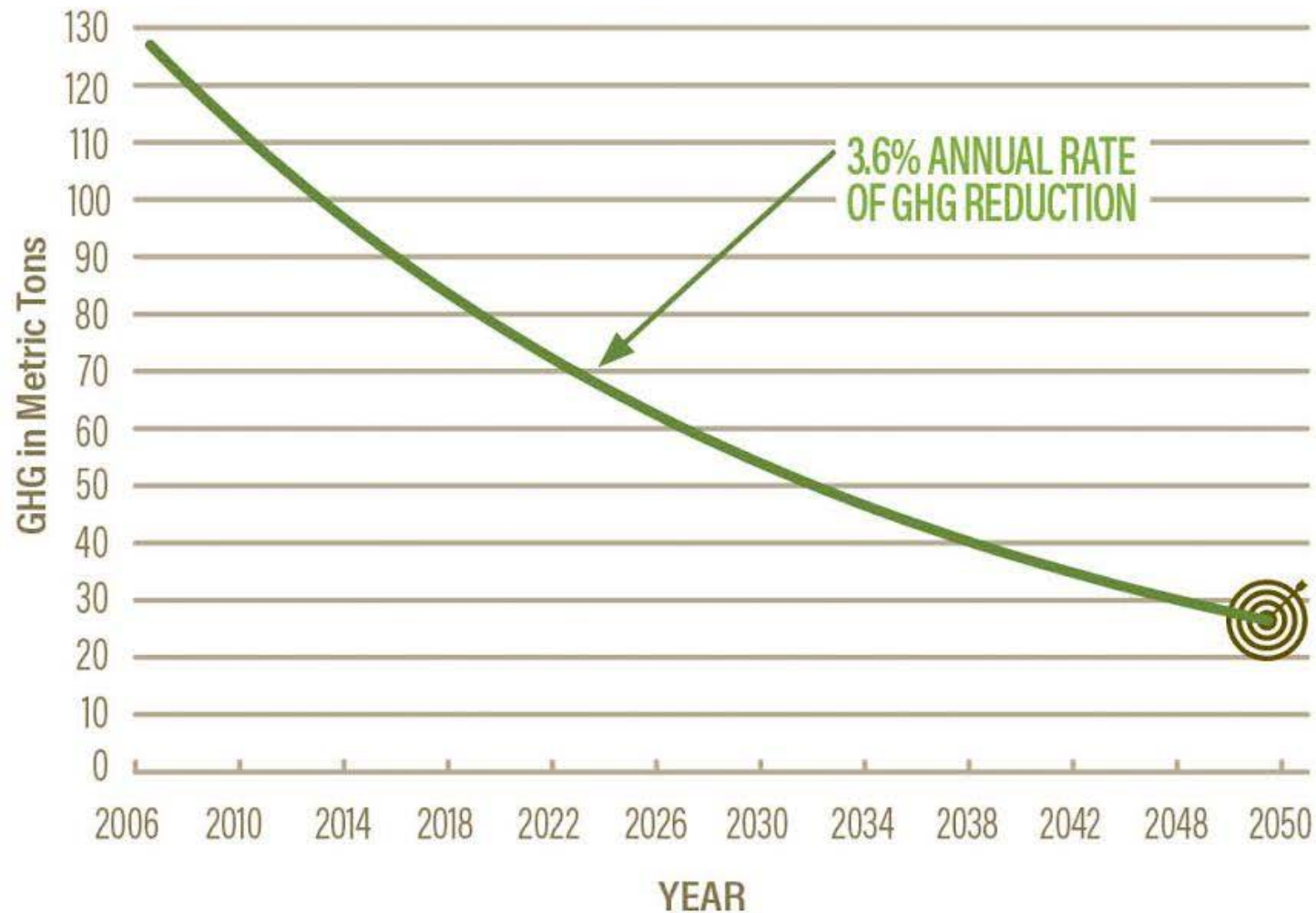


Sustainable Jersey Energy Goals

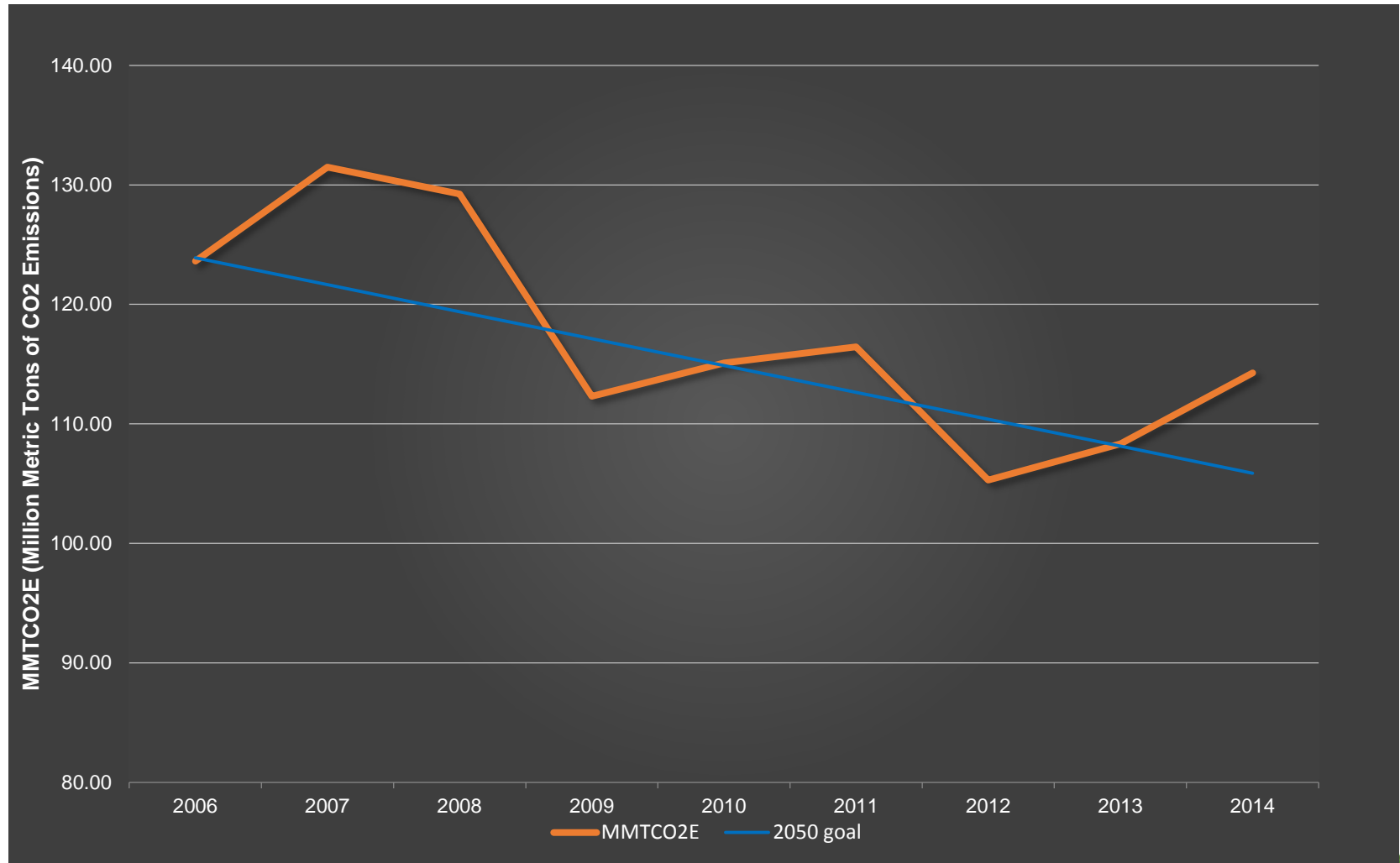
1. Decrease greenhouse gas emissions in time to avoid catastrophic climate impacts.
2. Increase the renewable energy fraction.
3. Increase resilience of energy system.
4. Increase affordability of energy.
5. Decrease risk to health from the energy system.



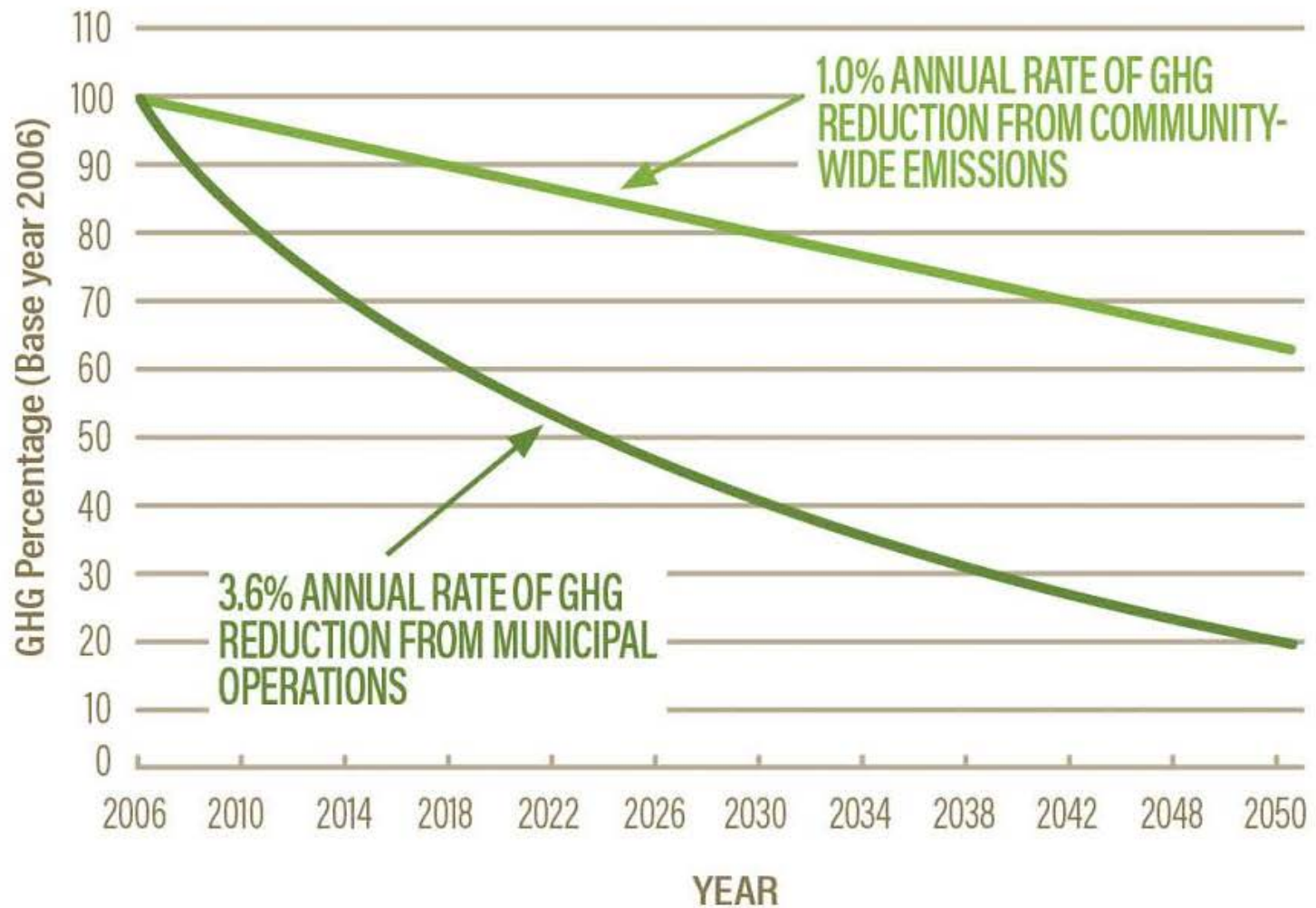
STATEWIDE REDUCTIONS REQUIRED BY GLOBAL WARMING RESPONSE ACT



NJ Performance 2006-2014: Actual vs. Target Emissions (MM Tons of CO₂)



REDUCTIONS REQUIRED FOR GOLD STAR IN ENERGY



The Gold Star in Energy

2 Municipal Roles, 2 Municipal Standards, 2 Gold Actions:

1. Municipal operations and facilities: Buildings, exterior lighting, fleets
2. Influencing the community: Taking effective action to lower community-wide greenhouse gas (GHG) emissions



Before you apply...

Currently Silver
certified OR
applying for Silver
certification



Apply for the Gold
Star Standard in
Energy and/or
Waste

Sign in or sign up.

ABOUT

ACTIONS &
CERTIFICATIONEVENTS &
TRAININGSGRANTS &
RESOURCESMEDIA &
COMMUNICATIONS

SUPPORT US

REGISTER



REACH FOR THE STARS!

Learn about Sustainable Jersey's new Gold Star Standards in Energy and Waste

ABOUT SUSTAINABLE JERSEY

Sustainable Jersey is nonprofit organization that provides tools, training and financial incentives to support communities as they pursue sustainability programs. [Learn More](#) →



PROGRAM AREAS

MUNICIPAL CERTIFICATION PROGRAM →

SCHOOLS CERTIFICATION PROGRAM →

ENERGY PROGRAM →

RESILIENCY PROGRAM →

PUBLIC INFORMATION & ENGAGEMENT →

PROGRAM FUNDERS



PARTICIPATING COMMUNITIES

View the map of Sustainable Jersey communities. Search the completed actions database and sort by county, actions and certification status! [View Now](#) →
Or download the poster [here](#).



SUSTAINABLE JERSEY MUNICIPAL CERTIFICATION PROGRAM

444

TOTAL PARTICIPATING

198

CURRENTLY CERTIFIED

153

BRONZE

45

SILVER

0

GOLD STARS

BECOME CERTIFIED →

GOLD STARS AWARDED



0 Gold Star Municipalities



0 Total Gold Stars Awarded

HEADLINES



2017 NJ Sustainability Summit to Focus on Local Action = Collective Impact

JUN 07, 2017



Environmental Defense Fund Fellows Matched with Monmouth County Towns and School Districts to Advance Sustainable Energy Projects

MAY 24, 2017

UPCOMING EVENTS



Commit Your Town to Climate Progress: Go for the Sustainable Jersey Gold Star in Energy ONLINE
JUN 28, 2017 - 01:00 PM TO 02:00 PM



Monmouth County Green Team Esteem Monmouth County Ag Building
JUN 29, 2017 - 06:00 PM TO 08:00 PM

NEW! GOLD STAR STANDARD

View the new Gold Star Standards in Energy and Waste - A new level of recognition for silver certified communities.

[LEARN MORE](#) →

GO TO SUSTAINABLE JERSEY FOR SCHOOLS



Gold Star Standards

The screenshot shows the 'Gold Star Standards' page on the Sustainable Jersey website. The page has a green and yellow header with navigation links: ABOUT, ACTIONS & CERTIFICATION, EVENTS & TRAININGS, GRANTS & RESOURCES, MEDIA & COMMUNICATIONS, SUPPORT US, and a REGISTER button. The breadcrumb trail is Home > Actions & Certification > Gold Star Standards.

Gold Star Standards

A new level of recognition for Sustainable Jersey silver certified communities.

Silver certified municipalities are eligible to earn Gold Star recognition for achieving high levels of performance in key dimensions of sustainability. The levels of performance flow from our assessment of what we need to achieve as individual communities, and as a State, as defined in the [Sustainable State of the State Report](#). Achieving these goals will rely on action at many scales and across boundaries, and the Gold Star Standards define the role that municipal governments must play to achieve success.



Gold Stars will be awarded one dimension of sustainability at a time. The first Sustainable Jersey Gold Star Standards focus on Energy and Waste. Energy and Waste are fundamental dimensions of sustainability for which there are widely accepted metrics of performance supported by readily available quantitative data. Over time, new Gold Star Standards in additional dimensions will be developed and released.

See the overview of the [Gold Star Standard in Energy](#) and the [Gold Star Standard in Waste](#) for more details regarding the components of each standard.

[Back to Top](#) [Expand All](#) [Collapse All](#)

- Energy**
 - Community-Wide Emissions**
 - Mandatory
 - Municipal Operations**
 - Mandatory
- Waste**

ACTIONS & CERTIFICATION

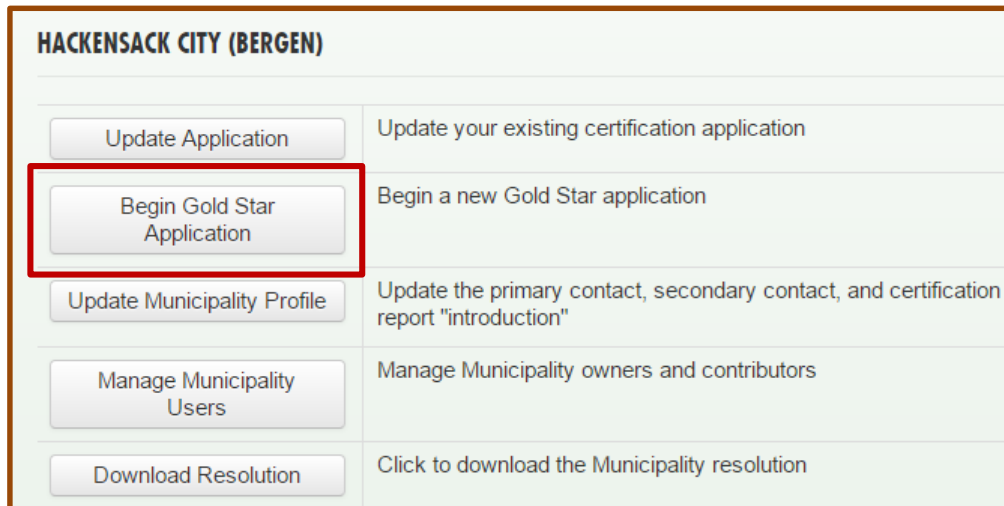
- Why Get Certified?
- Register
- Certification Overview
- Program Updates
- Actions
 - Gold Star Standards**
 - Technical Assistance
 - Green Team Resources
 - Participating Communities
 - Annual Awards

<http://www.sustainablejersey.com/actions-certification/gold-star-standards/>



Accessing Your Gold Star Application

- Sign in to Sustainable Jersey website
- Access the Gold Star application via the Municipal Dashboard
- Click “Begin Gold Star Application”



The screenshot displays the 'HACKENSACK CITY (BERGEN)' Municipal Dashboard. It features a table with five rows of buttons and their corresponding descriptions. The 'Begin Gold Star Application' button is highlighted with a red rectangular border.

HACKENSACK CITY (BERGEN)	
Update Application	Update your existing certification application
Begin Gold Star Application	Begin a new Gold Star application
Update Municipality Profile	Update the primary contact, secondary contact, and certification report "introduction"
Manage Municipality Users	Manage Municipality owners and contributors
Download Resolution	Click to download the Municipality resolution

Gold Star Application

- Same look and feel as the certification application
- Same action statuses
- “Help” area contains overview of Gold Star standards
- Overview documents available
- Submit button is yellow and always clickable

The screenshot displays the 'Application Overview' page. At the top, there's a header with 'Application Overview' and a 'Help' link. To the right, it says 'REVIEW COMPLETED' and 'Reviewer Feedback: 0 comments'. Below this is a 'SEARCH ACTIONS' section with checkboxes for 'Planned', 'Completed', 'Must Revise', 'Not Approved', 'Approved', and 'Expired'. A note instructs users to check boxes to identify actions and to click 'Clear Search' to return to the full action listing. A yellow bar contains 'Back to Top', 'Expand All', and 'Collapse All' links. The main content area lists two categories: 'Energy' and 'Municipal Operations', both with a status of 'Approved'. Each category has a 'Mandatory' label and a list of details: 'Expires on 06/13/18', 'Last updated 06/13/17', and 'This submission is currently locked'. On the right sidebar, there's a 'My Dashboard' link, a section for 'Gold Star Standard Overview Documents' listing 'Gold Star Standard in Energy' and 'Gold Star Standard in Waste', a reminder about certification actions, a link to 'Learn how Sustainable Jersey can assist municipalities interested in earning Gold Stars', and a prominent yellow 'Submit Gold Star Application for Review' button.

NOTE: All Gold Star actions within at least one Gold Star category (Energy/Waste) must be marked **completed** to submit



Gold Star Standard: Municipal Operations

What to submit:

1. Describe municipal strategies – What did you do to lower emissions from municipal operations by average **3.6%** per year?
2. Prove that you did it. Upload:
 - [Municipal carbon footprint](#) for selected base year.
 - Municipal carbon footprint for the most recent calendar year for which data are available.

Strategies for Getting to Gold

MUNICIPAL OPERATIONS: GHG REDUCTION STRATEGIES AND GOAL

STRATEGIES AND ACTIONS TO ACHIEVE GOLD	TIME TO IMPLEMENT	IMPACT ON MUNICIPAL GHG
Renewable Energy Generation		4-38%
On-Site Solar System	1-2 years	1-35%
On-Site Wind System	3-5 years	<1%
Geothermal System	2-3 years	3%
Greening the Municipal Fleet		15-18%
Purchase Alternative Fuel or Efficient Vehicles	3-7 years	4%
Convert Vehicles to Alternative Fuel	1 year	2%
Trip Optimization Software	1 Year	3-6%
Proper Vehicle Maintenance	1 Year	6%
Driver Training	1 year	3%
Buildings and Street Lighting Efficiency		12-19%
Implement Energy Efficiency Measures	2-4 years	10-17%
Energy Tracking & Management	1 year	2%
Estimated Impact from Reduction Strategies		31-75%

Strategies for Getting to Gold

COMMUNITY-WIDE GHG EMISSIONS: REDUCTION STRATEGIES AND GOAL

STRATEGIES AND ACTIONS TO ACHIEVE GOLD	TIME TO IMPLEMENT	IMPACT ON MUNICIPAL GHG
Renewable Energy Generation		6-11%
Community Purchase of Green Energy (Aggregation)	1-2 years	4-7%
Community-led Solar Initiatives	1-2 years	2-4%
Mobile Sources (vehicles)		10-18%
Public Alternative Fuel Vehicle (AFV) Refueling Station	1 year	5-10%
AFV Infrastructure Permitting and Zoning	1-2 years	
Development Patterns/Intensity	5-10 years	5-8%
Promoting Walking and Bicycling	2-10 years	
Building Energy Efficiency		3-4%
Commercial Sector Outreach (Direct Install)	1-2 years	≈1%
Outreach to Residents (Home Performance w/Energy Star)	1-2 years	≈1%
Tree Canopy (Shading Effect)	1-10 years	1-2%
Estimated Impact from Reduction Strategies		19-33%

Gold Star Standard: Community Emissions

Lower community-wide GHG through six actions:

- [Make Your Town Electric Vehicle Friendly](#)
 - [Public Electric Vehicle Charging Infrastructure](#)
 - [Make Your Town Solar Friendly](#)
 - [Community-Led Solar Initiatives](#)
 - [Residential Energy Efficiency Outreach](#)
 - [Commercial Energy Efficiency Outreach](#)
- ALTERNATE PATH: meet 1% annual reduction by substituting *pre-approved*, effective actions (e.g., [R-GEA](#))



Make Your Town Solar Friendly Action

Supportive Solar Zoning Ordinance

- Adopt Solar Zoning Ordinance
- Amend Permitting Fee Ordinance



- Note: [Solsmart](#) *Silver* designation qualifies for 30 points for this action

Streamlined Permitting

- Post requirements online
- TWO additional activities:
 - Train first responders
 - Cross-train codes and permitting staff
 - Expedited permitting
 - Offer narrow inspection timeframe
 - Expedite or eliminate zoning review

Community Led Solar Initiatives Action

Group Purchasing Program

- Group purchasing models
 - Sustainable Jersey Solar Challenge
 - Solarize campaign
 - Solarize campaign for businesses
- Performance based criteria
 - % of residents participating
 - % of businesses participating
 - Overall kW installed per capita

Activities and Incentives

- Awareness building and outreach
 - Financial institutions
 - Chamber of Commerce
 - Realtors
- Incentives
 - ‘Solar ready’ checklist for builders
 - Waive permitting fees
 - Utilize local workforce trainees

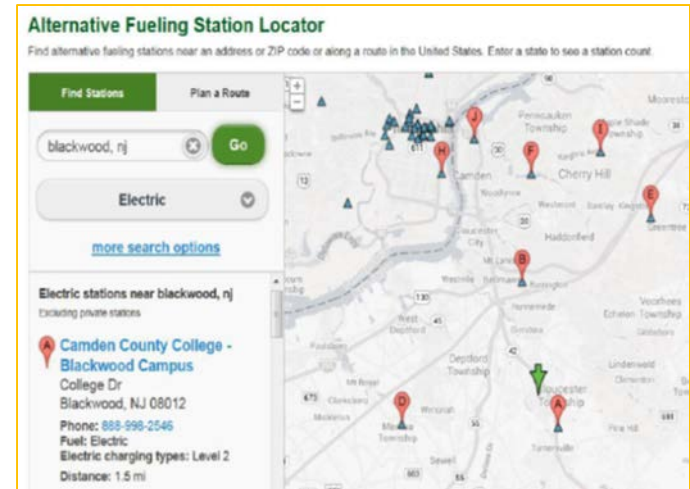
Make Your Town Electric Vehicle Friendly Action

- Purpose: facilitate adoption of EV by consumers
- Required activities
 - Zoning ordinance -- EV charging stations as accessory use
 - Ordinance -- design standards for EVSE parking spaces
 - Training for local officials
- Outreach activities (must do ONE)
 - Incentive for pre-wiring for EV charging station
 - Awareness event
 - Commitment from 3 local partners for workplace chargers
 - Commitment from 3 local partners for multi-family chargers



Public EV Charging Infrastructure Action

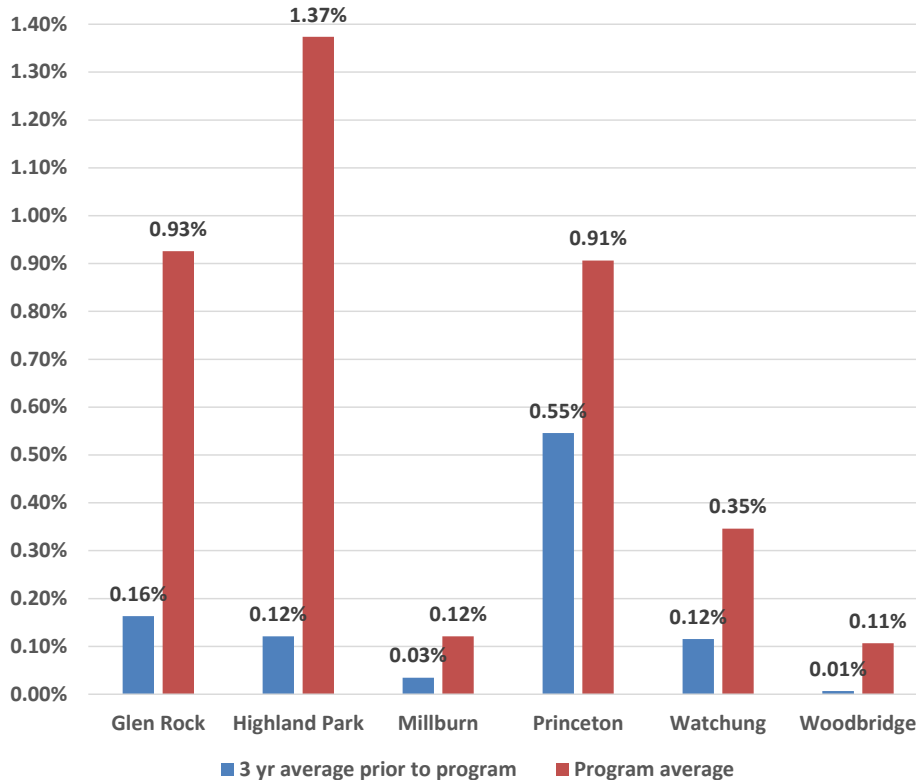
- Purpose: Helps address ‘range anxiety’
- Required elements
 - Municipality instrumental in the project
 - Publicly available
 - Listed on “public directory”
 - Signage/Promotion of Charging Stations
- Charging station may be:
 - Located on private property
 - Owned and operated by a local nonprofit



Residential Energy Efficiency Outreach

- Green team partners with municipal officials to complete targeted outreach program for the Home Performance with Energy Star & Comfort Partners programs.

Participation Rate Improvement for HPwES program



The average participation rate improvement for the six HPwES efforts that have been certified to date in Sustainable Jersey is a “6.8-fold” increase (range low of 1.7 to a high of 15.6)

Municipality	Households	Participation Rates					Total Completions
		2011	2012	2013	2014	2015	
Glen Rock	3,672	0.16%	0.05%	0.27%	0.63%	1.23%	69
Highland Park	2,475	0.12%	0.93%	1.82%	0.53%	0.48%	114
Millburn	5,777	0.12%	0.02%	0.07%	0.02%	0.12%	24
Princeton	5,739	0.63%	0.51%	0.51%	1.10%	0.71%	301
Watchung	1,735	0.23%	0.06%	0.23%	0.06%	0.35%	19
Woodbridge	24,406	0.00%	0.00%	0.02%	0.19%	1.72%	509
Statewide	2,102,465	0.13%	0.18%	0.23%	0.26%	0.30%	30,060



Commercial Energy Efficiency Outreach

- Green team partners with municipal officials to complete targeted outreach program to local businesses for the Direct Install program.



Dear Pennington Borough Business Owner,

We are writing today to alert you to two programs that we encourage you to participate in.

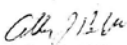
The first is the "New Jersey Direct Install" (NJDI) program that provides extensive funding for local businesses to improve and/or update their facilities for greater energy efficiency. The process is completely turnkey, and can result in dramatic improvements in your physical plant, with minimal cost to you.

The second opportunity is the "Hopewell Valley Green Business Recognition Program" which has been established to recognize and highlight the efforts of local businesses to help the environment by participating in this environmental awareness program. Participants in this program will be recognized throughout the Valley in various ways.

The enclosed flyer explains NJDI in greater detail. We urge you to seriously consider taking advantage of this amazing program. Join us for a presentation by an NJDI representative at the June 11th meeting of the Hopewell Valley Green Team at the Hopewell Township Municipal Building.

Also at this meeting, the Hopewell Valley Green Team will launch our Valley-wide Green Business Recognition Program. The program is designed to highlight the good work that so many of you are doing to reduce your company's impact on the environment and to provide you with the information and resources to do more. Read more about Green Business Recognition on the reverse side of this page, and then come to the meeting to find out how to participate.

Sincerely,


Anthony Persichilli
Mayor of Pennington


Joann Held
Co-chair, HV Green Team

SAVE THE DATE FOR A MEETING TO LEARN ABOUT BOTH PROGRAMS
JUNE 11 at 7:30 pm
Hopewell Township Municipal Building
201 Washington Crossing - Pennington Rd, Titusville
Open to all Property Owners and Tenants

30 North Main Street - Pennington, New Jersey 08654
609.727.0256 • Fax: 609.727.0260
www.penningtonboro.org



Become Energy Efficient At Minimal Cost. **DIRECT INSTALL**

SAVE 70%

Replace your old furnaces, boilers, central air conditioners and outdated lighting systems with energy-efficient technology. Let the New Jersey Office of Clean Energy PAY 70% of the TOTAL COST. Not A Rebate!

- **YOUR COSTS ARE MINIMAL.** No rebates or excess paperwork! Your building's energy assessment is FREE. New Jersey's Clean Energy Program pays 70% of the project cost.
- **THE INCENTIVES ARE DRAMATIC!** Your upgrade can easily pay for itself in one to two years.
- **REWARDS ARE LONG-TERM.** Your new energy-efficient equipment will provide savings for years to come through reduced utility bills. Replacement units are top of the line, high quality and energy-efficient. Brands include Trane, Carrier and York.
- **THE PROCESS IS COMPLETELY TURNKEY.** Once you decide to implement the recommended upgrades, Tri-State Light & Energy, the assigned Participating Contractor for Mercer, Middlesex and Union Counties, handles everything from permits, labor and ordering to installing the equipment and processing the paperwork.

FUNDING IS FIRST-COME, FIRST-SERVED.

Do not miss your opportunity.

Tri-State Light & Energy, Inc. is the Participating Contractor for Mercer, Middlesex and Union Counties. Call Sandra Torres at 610.789.1900 or email Sandra@tsle.com to schedule your Energy Assessment.

Get Started to Go Green & Save Green - Start Saving NOW.

Direct Install is an offering of the New Jersey Board of Public Utilities and the Clean Energy Program designed for small commercial, institutional and municipal buildings. It identifies proven measures for reducing utility costs and replaces inefficient equipment with energy efficient alternatives. Direct Install will cover 70% of project costs when installed by the exclusive Participating Contractor for your county.



2233 Manor Avenue
Upper Merion, PA 19082

T: 610-789-1900
F: 610-789-6504

NJDirectInstall@tsle.com
www.tsle.com



Pathways to Gold Star in Energy

Sample Town A

- Municipal Carbon Footprint
- Plus six required actions
 - Make Your Town Solar Friendly
 - Community Led Solar Initiatives
 - Make Your Town Electric Vehicle Friendly
 - Public Electric Vehicle Charging Infrastructure
 - Residential Energy Efficiency
 - Commercial Energy Efficiency

Sample Town B

- Municipal Carbon Footprint
- Provides robust data to demonstrate GHG reductions of 1% per year for 3 years
- Substitute *preapproved* activities, for example:
 - Renewable Government Energy Aggregation
 - EV Challenge

Community Choice Aggregation

Community Choice Aggregation (CCA) is a municipal energy procurement model that replaces the utility as the default supplier of electricity for virtually all homes and small businesses within a community.

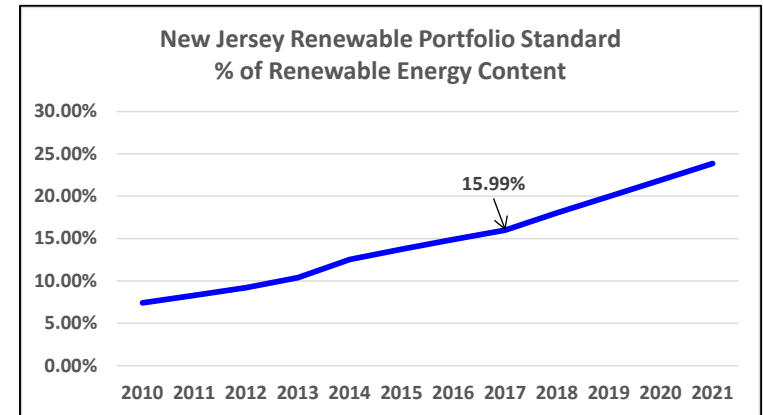
It offers the following benefits:

- Secure lower energy prices locally
- Exercise more local control over energy resources
- Increase the percentage of renewables in the fuel mix
- In New Jersey, this model is known as Government Energy Aggregation (GEA)



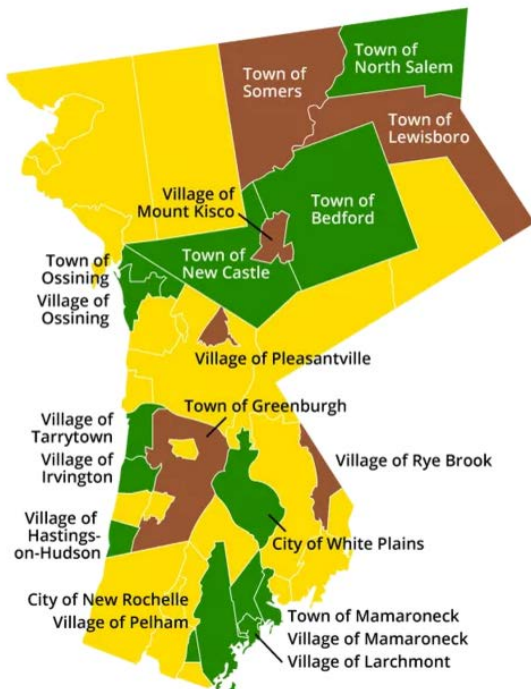
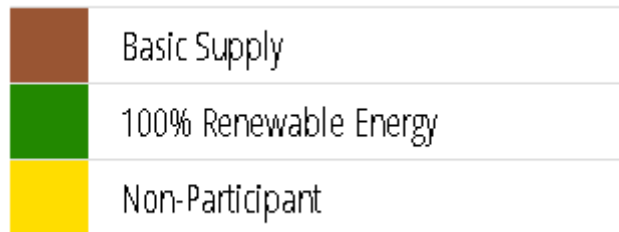
Renewable Government Energy Aggregation

- RGEA is a Sustainable Jersey action that utilizes the CCA model to spur adoption of cleaner energy in New Jersey.
 - Action gives points on a sliding scale depending on the percentage of energy from renewable sources in the default package
 - Law currently requires 15.985% of NJ energy from renewable content
 - Our research is based on an RGEA with 40% renewable content
 - To date, no NJ municipality has adopted a CCA that has a renewable content above the existing renewable portfolio standard *as its default package*



Renewable Government Energy Aggregation

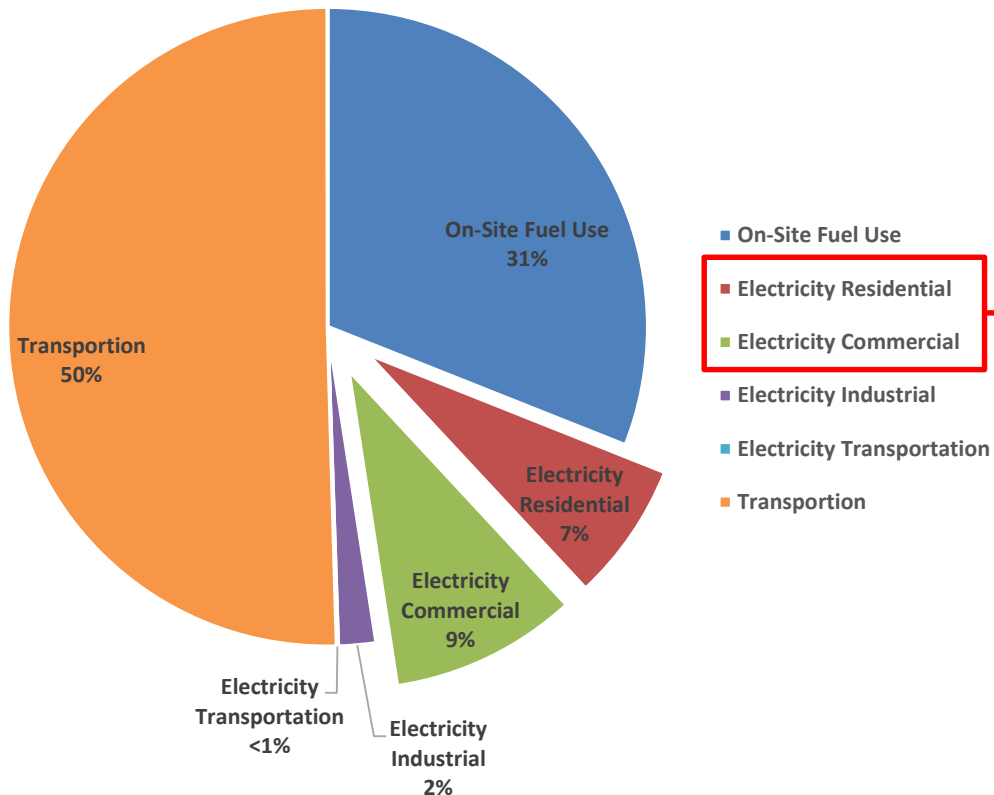
- However, a successful example exists just to our north in Westchester County, NY (2016).



- 20 municipalities representing 40% of the county's population are participating
- CCA Basic Supply package saves 9.1% on electricity over basic tariff rate
- CCA Renewable Package saves 5.7% on electricity over basic tariff rate
- 70,000 of the 110,000 residential customers in Westchester County chose the 100% renewable energy option
- *15% GHG reduction as a result of this program*

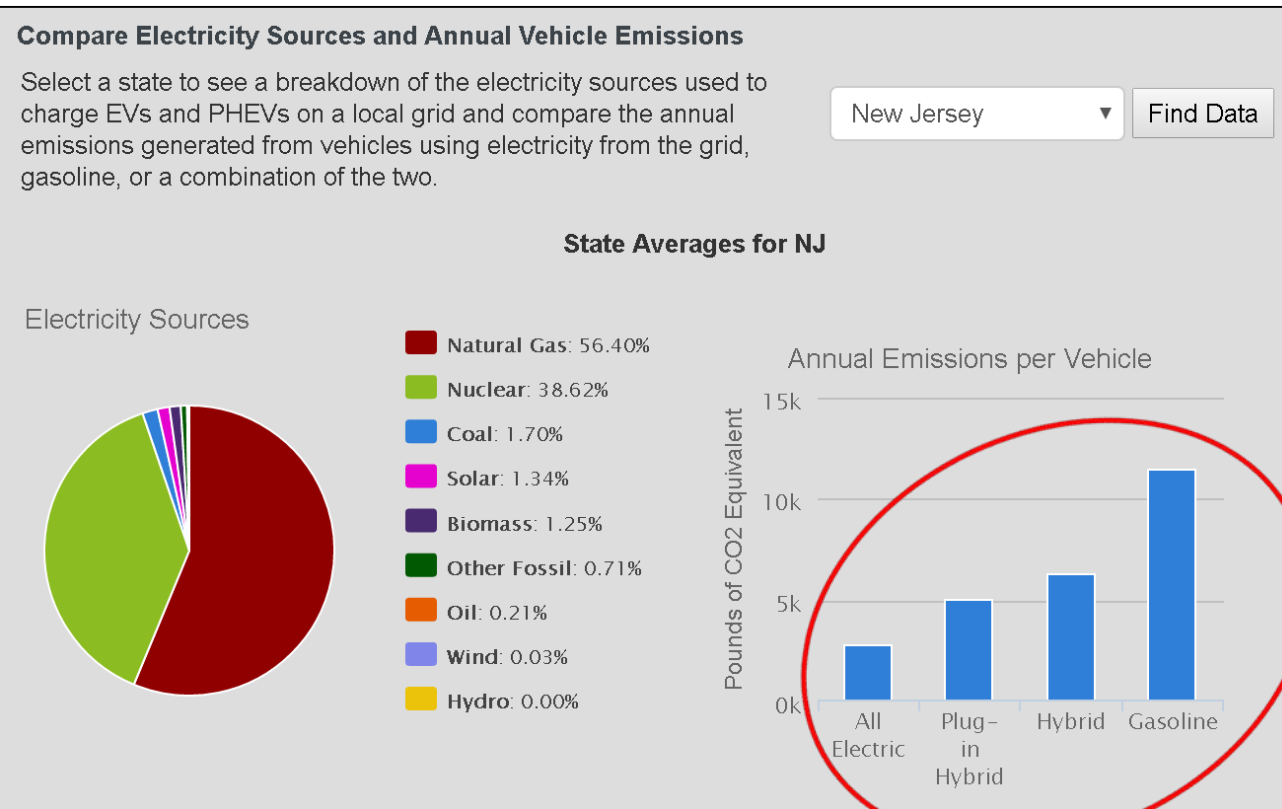
RGEA – Potential for Emissions Reductions

New Jersey Green House Gas Emissions - 2012



Based on a historic participation rate of 90+%, we estimate that a municipality in New Jersey could reduce their carbon emissions profile by 6 – 9% by implementing the RGEA action

Electric Vehicles – Potential for Emissions Reductions



GHG Emissions Savings from Gasoline to:

- Hybrid 45%
- Plug-in hybrid 56%
- All electric 76%

Source: https://www.afdc.energy.gov/vehicles/electric_emissions.php

Electric Vehicles in NJ


Electric Vehicle Registrations in New Jersey 2012 - 2016



Source: [NJDEP Presentation at 2017 Sustainability Summit](#)

EV Group Purchase Program

- Community-Led Outreach Campaign
- Engage local auto dealerships for:
 - Discount pricing
 - Limited duration
- Increase support for EV Friendly policies and Public EV Charging Infrastructure
- Can be paired with Solar Group Purchase Program



Deals from Boulder County to Help You Save Money and the World

Benefits Boulder County is offering a limited time discount:

The Nissan LEAF exclusively through Valley Nissan

- up to \$22k in savings after discount and tax incentives
- take advantage of heightened state tax credits before they expire 12.31.16
- 0% Financing for 72 months
- never pay for gas again
- EPA estimate 107 mile range
- drive into the future

Example Pricing (Subject to Change)

LEAF SV (Mid Class Model)	
MSRP \$35,455*	
Discount \$8,500	
Fed Tax Credit \$7,500**	
CO Tax Credit \$6,000***	
Net Cost \$13,455	

+

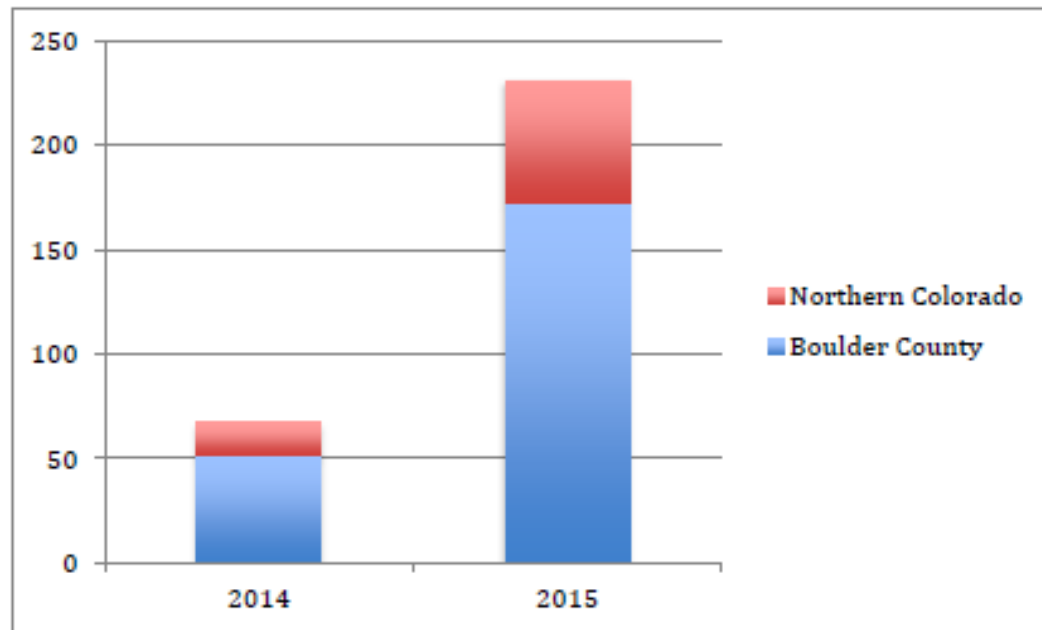
Free Home Charging Station (\$500 Value)

- Deal Ends December 31st - Act today -

Source: Refuel Colorado.
www.refuelcolorado.com/sites/default/files/poster-december-leaf-sv.pdf



EV Group Purchase Program Outcomes



Source: Southwest Energy Efficiency Project. The Electric Vehicle and Solar Photovoltaic Power Purchase Handbook: A Toolkit for Developing EV and Rooftop Solar Group Purchase Programs.
http://refuelcolorado.com/Power_Purchase_Handbook.pdf

- Northern Colorado
 - 300% increase in EV sales
 - 15 EVs sold in 2014
 - 59 EVs sold in 2015
- Boulder, Colorado
 - 230% increase in EV sales
 - 52 EVs sold in 2014
 - 173 EVs sold in 2015
- Price break offered:
 - \$8,500 dealer discount
- Plus tax credits:
 - \$7,500 federal tax credit
 - Colorado tax credit

Going for Gold!

- It's needed!
 - Gold Star in Energy demonstrates commitment to reducing GHG emissions in time to stabilize climate
- It's feasible!
 - Meeting 2 Gold Star Standards gets needed reductions using known strategies:
 - For municipal operations
 - For community-wide emissions
- Sustainable Jersey staff are here to help!
 - Contact us (*soon!*)



Thank You!

If your town is contemplating going for a Gold Star in Energy, or for further information, contact:

- Melanie McDermott, Senior Researcher
 - Email: mcdermom@tcnj.edu
 - Phone: 609.771.2836
- Tony O'Donnell, Economist
 - Email: odonnela@tcnj.edu
 - Phone: 609.771.2921
- Nancy Quirk, Energy Program Manager
 - Email: quirkn@tcnj.edu
 - Phone: 609.771.2902



Upcoming Partner Events



NJ ELECTRIC SCHOOL BUS WORKSHOP

18 JULY 2017
FROM 9 AM - 2 PM
NJPSA FEA Conference Center
12 Centre Drive
Monroe Township, NJ 08831

This free one-day workshop will present lessons from the field to educate decision makers on electric school bus technology, funding, procurement & best practices for deployment. Registration is free and includes lunch.

RSVP ONLINE
[HTTP://BIT.LY/EBUSNJ](http://bit.ly/EBUSNJ)



Event co-hosted by Sustainable Jersey, NJ Clean Cities Coalition, & the Vermont Energy Investment Corporation. Funding provided by the NY Community Trust



Upcoming Events

The Art of Sustainability: Creative Placemaking and Your Community

JULY 26, 2017 - 1:00 PM TO 2:00 PM

ONLINE

[REGISTER](#)

This webinar will provide an overview of all of the arts and creative culture actions in the Sustainable Jersey program, and will focus on the newest action, [Municipal Commitments to Arts and Creative Culture](#). This action rewards municipalities for building a more welcoming environment for artistic and cultural activity through land use ordinances and other regulations, contractual relationships with cultural organizations, municipal ownership of spaces reserved for cultural and creative activities, tax abatements that help creative people to live or work in the community, and art-specific strategies in the municipality's Master Plan.

Speakers will talk about how they have utilized their creative assets to make their communities more vibrant, both economically and artistically.



Upcoming Events

Helping Your Local Businesses Be More Sustainable (Webinar)

September 13, 2017 – 1:00 PM TO 2:00 PM

[REGISTER](#)

Community efforts toward sustainability cannot be successful without the active engagement of the private sector. The NJ Sustainable Business Registry Program, developed by the NJ Small Business Development Centers in partnership with the NJ Department of Environmental Protection, is an online registry where businesses can receive tips and resources to become more sustainable.

Learn about Sustainable Jersey's Green Business Recognition Program action that awards points to municipalities that promote and encourage the adoption of this program by its businesses. Hear about the Registry and what Sustainable Jersey communities have done to promote sustainability to their local businesses



Thank you for attending “Commit Your Town to Climate Progress”

For further information, contact:

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