



2017 NEW JERSEY
SUSTAINABILITY
SUMMIT



Sustainable Jersey Update

Renee Haider and Randall Solomon
Sustainable Jersey





Sustainable Jersey: A Framework for Action



- Coordinates priorities, resources, and policy among public and private, state and local actors to identify actions to achieve their sustainability goals
- Develops **tools, resources, and guidance** to make progress
- Provides access to **grants and assistance**
- **Recognizes accomplishments**

Actions for Sustainable Communities	POINTS	Actions for Sustainable Communities	POINTS	Actions for Sustainable Communities	POINTS
BRONZE	10	WATER CONSERVATION	10	WATER CONSERVATION	10
SILVER	20	WATER CONSERVATION	20	WATER CONSERVATION	20
STAR	30	WATER CONSERVATION	30	WATER CONSERVATION	30
ENERGY	10	WATER CONSERVATION	10	WATER CONSERVATION	10
ENERGY	20	WATER CONSERVATION	20	WATER CONSERVATION	20
ENERGY	30	WATER CONSERVATION	30	WATER CONSERVATION	30
WASTE	10	WATER CONSERVATION	10	WATER CONSERVATION	10
WASTE	20	WATER CONSERVATION	20	WATER CONSERVATION	20
WASTE	30	WATER CONSERVATION	30	WATER CONSERVATION	30
TRANSPORTATION	10	WATER CONSERVATION	10	WATER CONSERVATION	10
TRANSPORTATION	20	WATER CONSERVATION	20	WATER CONSERVATION	20
TRANSPORTATION	30	WATER CONSERVATION	30	WATER CONSERVATION	30
COMMUNITY ENGAGEMENT	10	WATER CONSERVATION	10	WATER CONSERVATION	10
COMMUNITY ENGAGEMENT	20	WATER CONSERVATION	20	WATER CONSERVATION	20
COMMUNITY ENGAGEMENT	30	WATER CONSERVATION	30	WATER CONSERVATION	30
PLANNING	10	WATER CONSERVATION	10	WATER CONSERVATION	10
PLANNING	20	WATER CONSERVATION	20	WATER CONSERVATION	20
PLANNING	30	WATER CONSERVATION	30	WATER CONSERVATION	30
LEADERSHIP	10	WATER CONSERVATION	10	WATER CONSERVATION	10
LEADERSHIP	20	WATER CONSERVATION	20	WATER CONSERVATION	20
LEADERSHIP	30	WATER CONSERVATION	30	WATER CONSERVATION	30



FUNDING AVAILABLE FOR SUSTAINABILITY INITIATIVES!

Does your municipality have a project that needs funding?

Available Grants:
 Four \$25,000 Project Grants
 Eight \$10,000 Project Grants
 Twenty \$5,000 Caseload Building Grants

Application:
 Apply link to the online application can be found on the Grants and Resources page of sustainablejersey.com

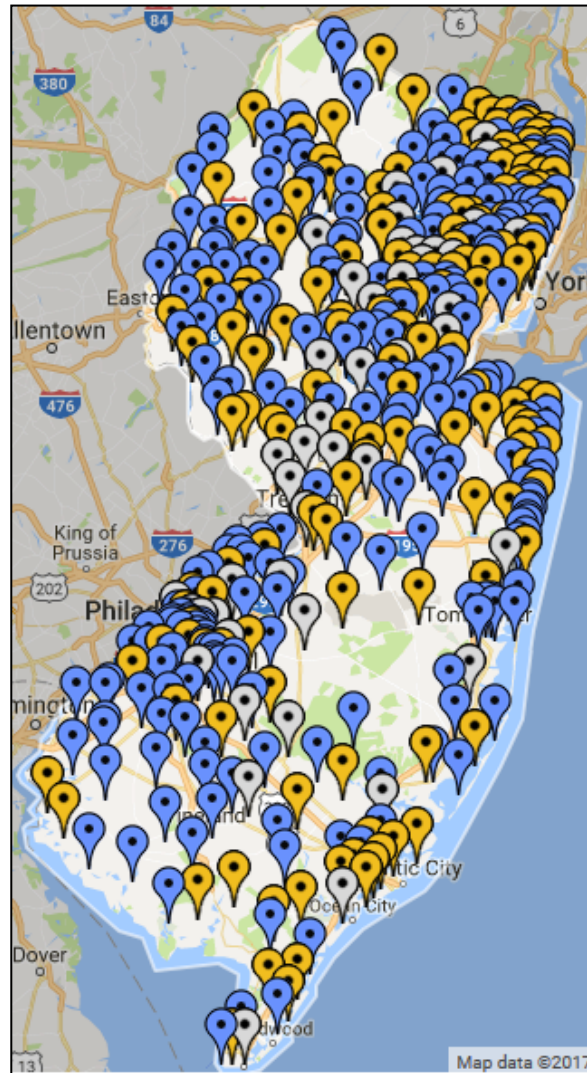
Application Due:
 Tuesday, February 28, 2017

Informational Webinar:
 Thursday, December 15, 2016 at 1:00pm
 Register on the Events & Trainings page at sustainablejersey.com

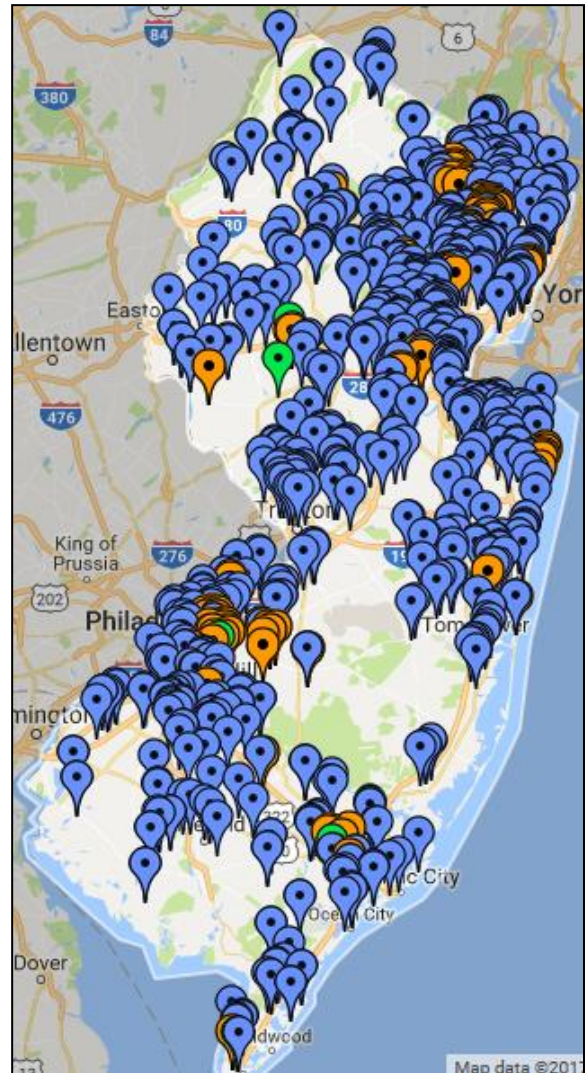
Eligible Applicants:
 New Jersey municipality registered in the Sustainable Jersey program with an established green team. See website for additional information regarding eligibility for previous small grant recipients.

Sponsored By:
 PSEG
 We're doing good for you.

Program Participants



Municipal



Schools

Municipal Program

- 444 (79%)
- 198 Certified
 - 153 Bronze
 - 45 Silver
 - 112 In-Progress

Schools Program

- 265 Districts (40%)
- 661 Schools (26%)
 - 109 Bronze
 - 9 Silver
 - 138 In-Progress



Sustainable Jersey by the Numbers



- **4,645** requests for assistance per year
- **207** Sustainable Jersey yearly training and outreach events
- **7,635** total actions approved
- **2,200** actions approved annually
- **52,000** monthly web page views
- **8,200** people on email list



Small Grants Program



Grant Award Locations

Sustainable Jersey
May 26 at 10:45am

Toms River awarded \$20k grant for a collaborative project with the Toms River Regional School District to improve a marine lab and use it to promote environmental research.
#sjgrants #greenteams
#sustainablejerseyschools

Toms River Township, Sc...
The grant from Sustainable Jersey wil...
PATCH.COM

8 likes | Comment | Share

\$3,467,000

Total # of Grant Awards Since 2009

- **336** Municipal Grants
- **269** Schools Grants

2016 -2017 Funding Provided by:

- PSEG Foundation
- New Jersey Education Association
- Gardinier Environmental Fund
- New Jersey Department of Health

“Hands-On” Assistance

- **Environmental Defense Fund Fellows**

- Climate Corp Summer Fellows placed in municipalities and schools to help advance their energy initiatives



- **Power Save Schools Program**

- Schools receive energy conservation education and training through the Alliance to Save Energy’s Power Save Schools program



- **TCNJ CEL Days**

- Teams of TCNJ students assist municipal green teams with a one-day project



“Hands-On” Assistance

- **Sustainable Jersey Solar Challenge**

- Communities received support from Sustainable Jersey and EnergySage in developing and promoting an outreach campaign to increase residential and commercial solar installations

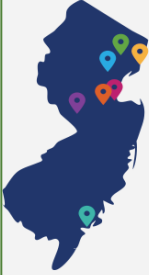
- **Technology Assessments**

- Consultant worked with municipalities to develop a roadmap for transitioning to new forms of communications through emerging technology

- **Coding for Community**

- Competition that matched technology experts with municipalities to develop solutions to local sustainability and public engagement issues

Community Success Metrics
Individual participating community statistics

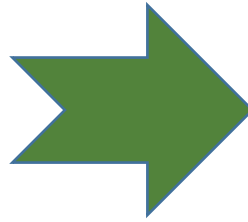


	Registrations	Contracts	Contracted kW
Hopewell	122	9	104.5
Verona	110		
Maplewood	90	1	8.1
Hoboken	58	1	9.3
Highland Park	54		
Woodbridge	49		
Galloway	34	1	8.8
Total	517	12	130.7



Regional Hubs

- Increased Collaboration
- Network of Leaders
- Quarterly Events
- Joint Projects
- Help Peers Get Certified
- Online Communication Platform



- Atlantic-Cape May
- Camden-Burlington-Gloucester
- Essex
- Hunterdon
- Mercer
- Middlesex
- Monmouth
- Somerset



New Municipal Certification Actions

- **Arts & Creative Culture**

- Municipal Commitments to Support Arts and Creative Culture

- **Energy**

- Energy Efficiency for Municipal Facilities
- Commercial Energy Efficiency Outreach
- Residential Energy Efficiency Outreach
- Make Your Town Solar Friendly
- Community-Led Solar Initiatives

- **Waste Management**

- Household Hazardous Waste
- Non-Mandated Recycling
- Recycling and Waste Reduction and Compliance





Goal Star Standards

Silver certified municipalities are eligible to earn Gold Star recognition for achieving high levels of performance in key dimensions of sustainability.

- **Energy**
 - Municipal Operations
 - Community-Wide Emissions
- **Waste**
 - Achieve Target Recycling Rate
 - Reduce Solid Waste



Strategic Initiatives



Bordentown City Green Fair
Photo Collage

- Assess and improve certification actions to maintain program quality and demonstrate that the actions are relevant and in tune with current best practices
- Review the Sustainable Jersey programs and actions to identify opportunities to address social equity
 - Who do they benefit?
 - Are they leaving anyone out?
 - Are there any *gaps*?

Strategic Initiatives

- Build local capacity to successfully implement program actions through increased support
 - Continue to pursue opportunities for “hands on” assistance through partnerships
 - Explore development of regional hubs for schools
 - Support municipalities interested in earning a Gold Star in Energy and/or Waste
- Compile an inventory of success stories to generate support for our efforts
- Pursue a Gold Star Standard in Water





Linking Actions to Gold



- **Bronze:**
 - Made a commitment to Sustainability
 - Created internal organization (green team)
 - Succeeded in implementing first significant actions
- **Silver:**
 - Beyond getting started
 - Making significant progress in a broad range of areas
 - Statewide leader



What is Gold?



- Highest level of certification
- Recognizes that a municipality is on course to becoming sustainable
- Has actions that are linked to needed levels of performance
- If every municipality were to perform at the Gold level, collectively municipalities would be “doing their part” to achieve our goals



Gold Star Standards

- Gold will be rolled-out 1-2 new standards per year
- Gold Stars awarded one at a time for each Gold Standard met
- When a municipality achieves a majority of 14 Stars they are Gold Certified
- Municipalities must be Silver certified to be eligible for a Gold Star
- Current: Energy and Waste Standards on Website
- Up next: Water!
- Gold Stars: Rolling Application



The Gold Star in Waste



1. Recycling Standard:

- Total Solid Waste Recycling Rate: 65%
- Municipal Solid Waste Recycling Rate: 55%

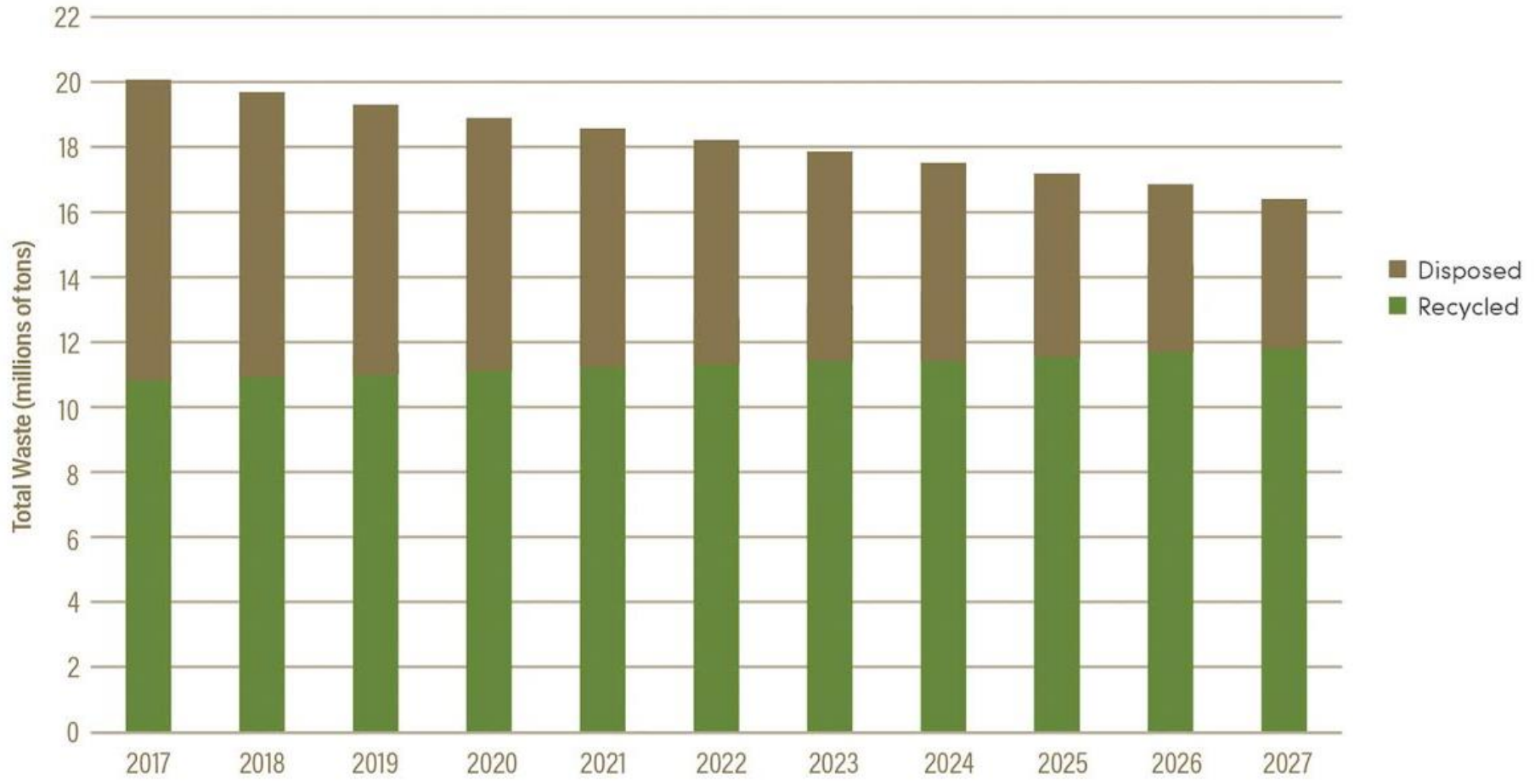
2. Waste Reduction Standard

- 2% Annual Reduction in Total Solid Waste Generation



IMPACT OF GOLD STANDARD ON NJ WASTE GENERATION & RECYCLING

This chart shows the impact on the statewide waste stream if every municipality achieved the Gold Star.





Strategies for Getting to Gold



IMPACTS FROM WASTE REDUCTION STRATEGIES

WASTE REDUCTION STRATEGIES	IMPACT ON ANNUAL WASTE REDUCTION
Pay-As-You-Throw Program	14-27%
Cut It and Leave It Program (Grass)	3 - 5%
Waste Reduction Education & Enforcement	1-10%
Backyard Composting	1-5%
Materials Reuse Program	1-5%
Reusable Bag Education Program	0.60%

IMPACTS FROM RECYCLING STRATEGIES

RECYCLING STRATEGIES	ESTIMATED ANNUAL INCREASE IN RECYCLING RATE
Pay-As-You-Throw Program	30-60%
Food Waste	8%- 25%
Recycling Education & Enforcement	1-20%
Non-Mandated Materials Recycling	5-15%
Construction and demolition	4-11%
Commercial & Institutional Recycling	4-10%

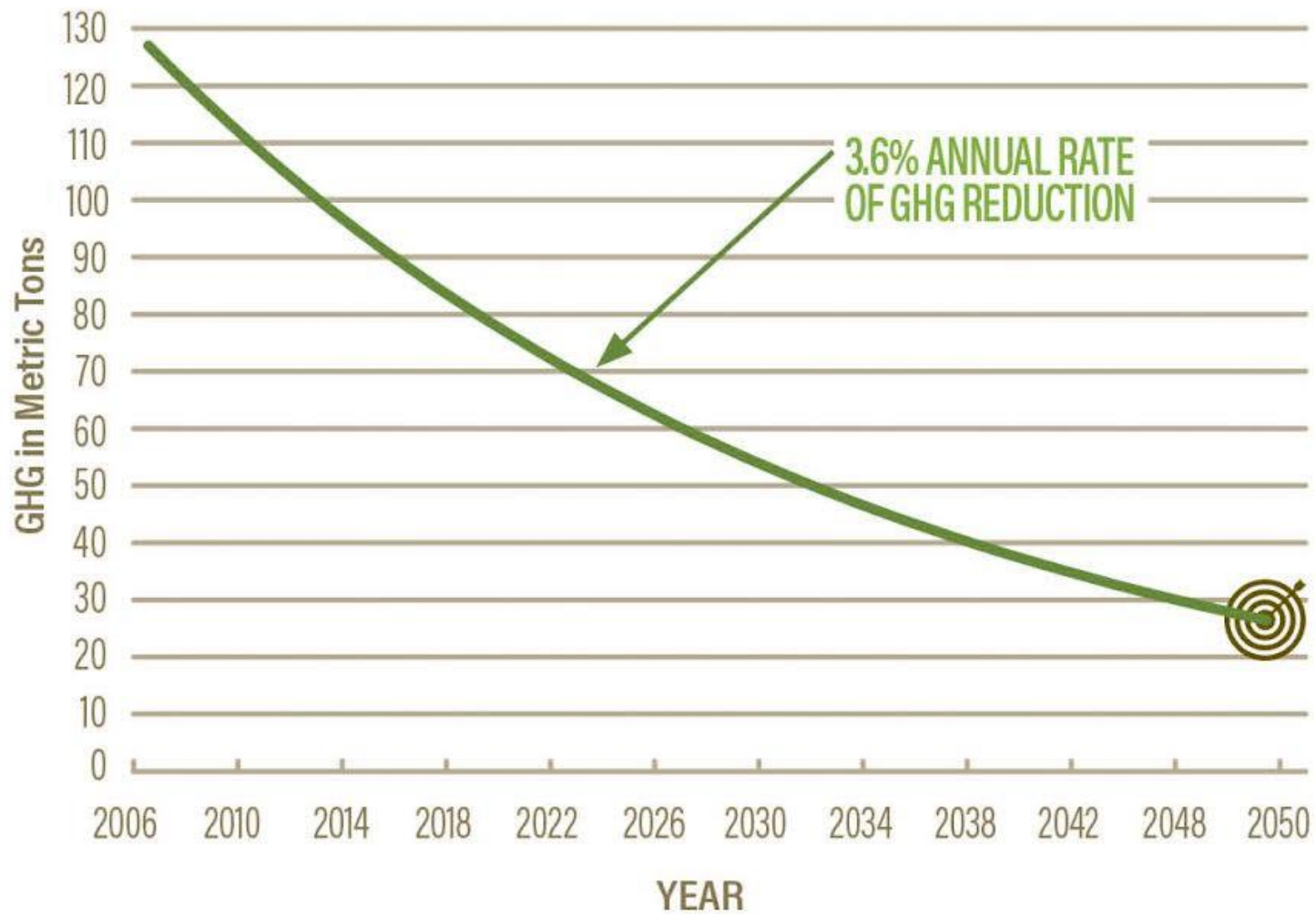


Sustainable Jersey Energy Goals



1. Decrease greenhouse gas emissions in time to avoid catastrophic climate impacts (environmental harm).
2. Increase the renewable energy fraction (decrease vulnerability of energy system).
3. Increase affordability of energy.
4. Increase resilience (decrease outages and vulnerability to disruptions).
5. Decrease risk to health from the energy system.

STATEWIDE REDUCTIONS REQUIRED BY GLOBAL WARMING RESPONSE ACT





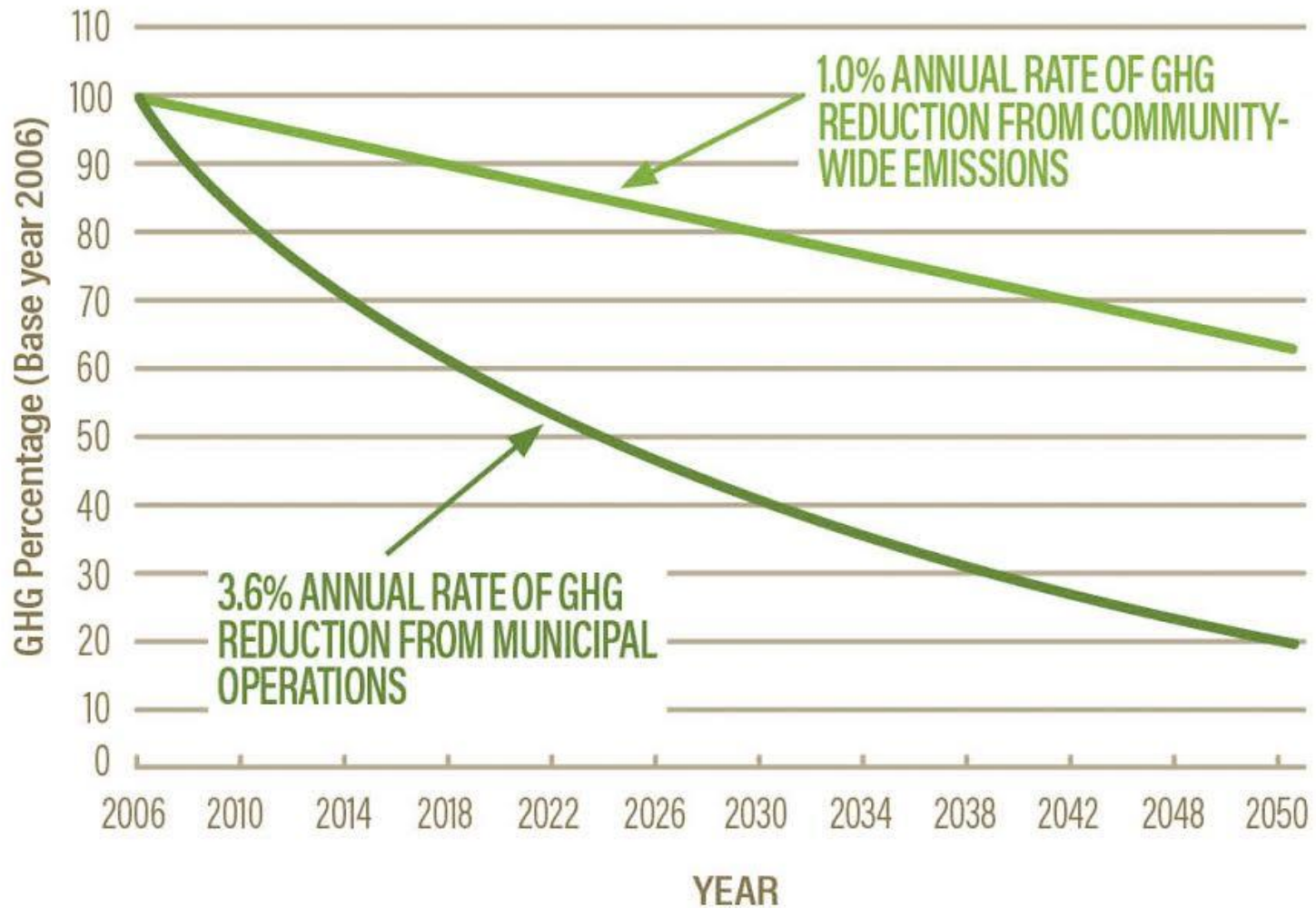
The Gold Star in Energy



Two Municipal Roles; Two Municipal Standards:

1. Municipal Operations: Buildings, Exterior Lighting, Fleets
2. Influencing the Community: Taking Effective Action to Lower Community-Wide GHG

REDUCTIONS REQUIRED FOR GOLD STAR IN ENERGY





Strategies for Getting to Gold



MUNICIPAL OPERATIONS: GHG REDUCTION STRATEGIES AND GOAL

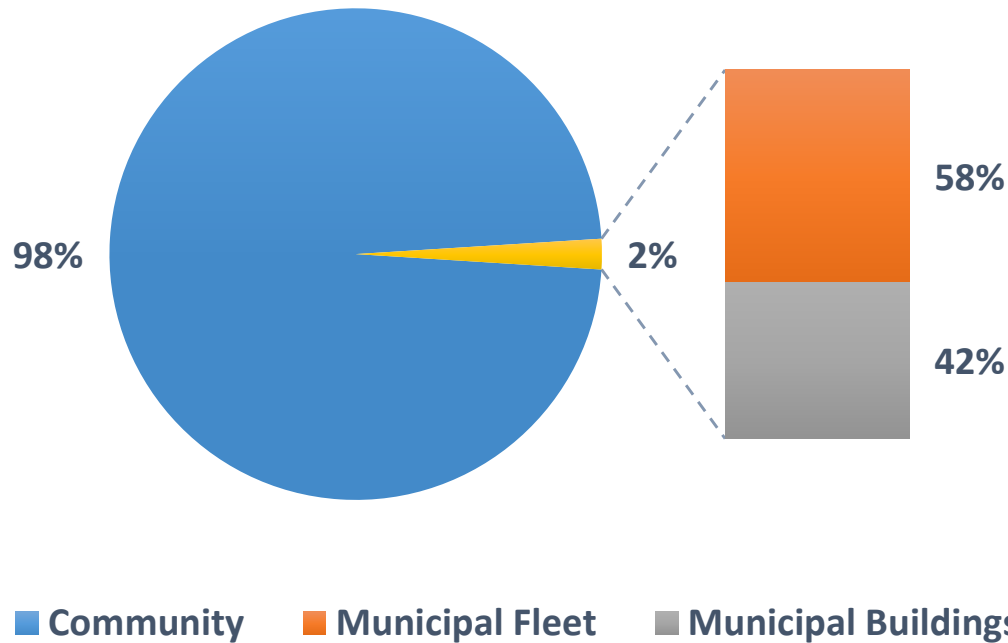
STRATEGIES AND ACTIONS TO ACHIEVE GOLD	TIME TO IMPLEMENT	IMPACT ON MUNICIPAL GHG
Renewable Energy Generation		4-38%
On-Site Solar System	1-2 years	1-35%
On-Site Wind System	3-5 years	<1%
Geothermal System	2-3 years	3%
Greening the Municipal Fleet		15-18%
Purchase Alternative Fuel or Efficient Vehicles	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%



Muni Operations Vs. Broader Community



Average NJ Municipal GHG Profile





State Energy Programs: Engaging the Community



- What percent of eligible homes businesses have taken the BASIC steps?
 - Solar Panels 11%
 - Energy Efficiency for Small Business (Direct Install) 5.7%
 - Energy Efficiency for Homes (Home Performance with Energy Star and Comfort Partners) 4.6%



SUSTAINABLE JERSEY SOLAR CHALLENGE



Hopewell Valley Solar Challenge

- Winner of \$10,000 grand prize
- Friendly Competition among:
 - Galloway, Highland Park, Hoboken, Hopewell, Maplewood, Verona, and Woodbridge
- Program outcomes to date:
 - Over 500 residents signed up
 - 200kW in new solar installations under contract

Explore your solar options today!

The Hopewell Township Environmental Commission & Hopewell Valley Green Team have joined with Energy Sage to help bring solar power to Hopewell Valley

Compare solar quotes online & get honest advice

Enter your zip code [Get Started](#)

or start with an [Instant Estimate](#) of your solar savings

We're helping you go solar with confidence!

This Solar Challenge is a unique partnership between the Hopewell Township Environmental Commission and Hopewell Valley Green Team, and Energy Sage and Sustainable Jersey. The project has been endorsed by the Hopewell Township Committee. We seek to promote a sustainable future and foster green alternatives for all of Hopewell Valley.

The Challenge is for homeowners and businesses to use this Energy Sage web portal to identify best options, obtain quotes, decide on a contract, and install a solar photovoltaic system.



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%



Two Pathways to Gold:

1. Community Gold Actions



1. Make Your Town Electric Vehicle Friendly
2. Public Electric Vehicle Charging Infrastructure
3. Make Your Town solar Friendly
4. Community-led Solar Initiatives
5. Residential Energy Efficiency Outreach
6. Commercial Energy Efficiency Outreach



Two Pathways to Gold:

2. Innovation and Results



- Clear goals and tracking enable innovation
- Implement ANYTHING, but show the impact
- Sustainable Jersey will work with you to score it, shape it
- **Example of New Leadership: Essex Regional Hub**
 - Multiple municipalities banding together to go renewable
 - Community Choice Aggregation/Renewable Government Energy Aggregation
 - Key ingredients: courage and resolve