

Renewable Government Energy Aggregation (R-GEA)

Sustainable Jersey Webinar





R-GEA Speakers

Overview of R-GEA Process

Tracey Woods – Project and Research Specialist, Sustainable Jersey

R-GEA Case Studies

Anthony Cancro – Business Administrator, Township of Plainsboro

Christine Symington – Program Director, Sustainable Princeton

Annette DePalma – Director of Community Development, Township of Maplewood

Gray Russell – Sustainability Officer, Montclair Township



Webinar Agenda

Overview of R-GEA

- What is R-GFA?
- R-GEA from resident's point of view
- Renewable Energy Credits (RECs)

R-GEA process for Municipality

- Hiring a consultant
- Soliciting third-party supply contract
- What impacts price offered to municipality?

R-GEA Case studies

- Plainsboro
- Princeton
- Sustainable Essex Alliance multi-municipal project including Glen Ridge, Maplewood, Montclair, South Orange, Verona



What is R-GEA?

- Government Energy Aggregation (GEA) allows municipalities to purchase electricity on behalf of residents
 - R-GEAs are aggregations with increased renewable content
- R-GEA enables municipality to use combined purchasing power of residents to negotiate better pricing and increased renewable content
- R-GEA contract with third-party suppliers is subject to several layers of consumer protection
 - Review by energy consultant
 - Review by New Jersey Board of Public Utilities and Rate Counsel
 - Review by municipal attorney



Recent Successful R-GEA Contracts in New Jersey

- Other municipal R-GEAs
 - o Glen Rock
 - Livingston
 - New Brunswick
 - Princeton
 - Plainsboro



Representatives of Sustainable Essex Alliance at 2019 ANJEC Congress

- The Sustainable Essex Alliance has a shared service R-GEA contract.
 - Glen Ridge, Maplewood, Montclair, South Orange and Verona



R-GEA from the Resident's Point of View



Township of Maplewood Sustainable Essex Alliance Renewable-GEA (SEA R-GEA) Program Announcement

Dear Maplewood Township Resident:

In 2018 the Township of Maplewood, together with neighboring Esse South Orange and Verona, came together to form the Sustainable Ess (SEAEPC), a joint purchasing initiative with the goal of using bulk purch on behalf of Township residents at a lower price, and with a higher rer by PSE&G. This program has been named the Sustainable Essex Alliance ("SEA R-GEA"). In April 2019, Maplewood and fellow participating a competing suppliers in the hopes of awarding a beneficial contract for i

We are pleased to inform you that, as a result of a recent competitive b bidder, Direct Energy Services, for a 17-month contract beginning in Ju residents of the other participating Essex County municipalities listed at new contract with Direct Energy Services will provide electric supply content of standard energy supply currently provided by PSE&G, at a pric tariff price being paid by those residents currently receiving supply throug tariff prices later this year the contract is projected to save the typical pronth contract term, with a substantially higher renewable energy contracts.

Direct Energy Services is an electric supplier licensed by the State of N years, and has experience serving tens of thousands of residential cust like the SEA R-GEA. If you do not wish to participate in the SEA R-GEA opt-out by following the instructions provided in the Program Summa

- By NJ law, residential aggregation programs are "opt-out"
- All residents are enrolled; but, at any time,
 with no fee, can opt out
- Before term of contract begins, residents
 will receive written notice of program and
 instructions for opting out of program

not opt-out of the SEA R-GEA program, you will also receive a notification from PSE&G in June that your account is



Understanding Your Electric Bill

- Residential electric bill includes two portions
 - Supply cost of electricity itself
 - Delivery distribution of energy to homes
- R-GEA affects only supply potion of electric contract
- Storm response, line maintenance, and eligibility for state programs are not impacted by R-GEA

Balance remaining from your last bill		
PSE&G balance from last bill Less Payment received June 11, 2020 – thank you!	\$95.52 -\$95.52	
Balance remaining from your last bill	\$0.00	
	JILO	
This month's charges and cred	ait5	
Gas charges - PSE&G	\$19.97	
Gas charges - PSE&G Plus Electric charges - PSE&G Plus Electric supply charges - Direct Energy Services,	\$19.97 \$17.74	

Picture of electric bill for resident participating in R-GEA program



How is Increased Renewable Energy Purchased in R-GEA?



PJM Territory
Image from https://www.pjm.com/about-pjm/who-we-are/territory-served.aspx-

PJM is the Regional Transmission Organization for New Jersey

Pennsylvania/Jersey/Maryland

So, how does the renewable energy get to my home?

Renewable energy represented by your REC purchase is not sent directly to your home.

Electricity that is delivered to your home is a mix of all electricity sources on electrical grid.

More renewable energy purchased = greener overall electric supply



Renewable Energy Certificates

- Renewable supply in R-GEA is purchased via Renewable Energy Certificates or RFCs
- 1 REC represents credit for 1000 kWh of electricity produced from a renewable source

Considerations in Choosing RECs

- Price to be impactful, RECs have to be sold at price that incentivizes renewable energy construction
- Location RECs from renewable sources generated in our regional transmission organization (RTO) incentivize further construction of renewables in our RTO



Renewable Portfolio Standard (RPS)

- New Jersey requires a percentage of electrical supply be procured from renewable sources – Renewable Portfolio Standard (RPS)
- RPS percentage changes annually

More information about NJ's RPS can be found at: https://programs.dsireusa.org/system/program/detail/564

Chart of New Jersey RPS

Year	NJ Solar	Class 1 RECs	Class 2 RECs	Total RPS	
2020	4.900%	16.029%	2.5%	23.429%	
2021	5.100%	21%	2.5%	28.6%	
2025	4.80%	35%	2.5%	42.3%	
2030	2.210%	50%	2.5%	54.71%	



Sustainable Jersey Points Available

5 points - Pass an ordinance and engaging an energy consultant

30 points - Renewable content at least **10% above prevailing New Jersey Renewable Portfolio Standard** with all renewable supply coming from Class 1 resources located within PJM*

45 points - Renewable content at least **20% above prevailing NJ Renewable Portfolio Standard**, with all renewable supply coming from Class 1 resources located within PJM*

*PJM is New Jersey's Regional Transmission Organization



R-GEA Process

Sustainable Jersey has a How-To Guide detailing full process for creating R-GEA program Sustainable Jersey How-To Guide: Renewable Government Energy Aggregation



Sustainable Jersey

Sustainability Institute at The College of New Jersey Forcina Hall, 3rd Floor 2000 Pennington Rd. Ewing, NJ 08628-0718

https://www.sustainablejersey.com/fileadmin/media/Actions and Certification/Actions/Energy/SJ Guidebook RGEA V2.pdf



First Step: Hiring an Energy Consultant

The energy consultant has two key roles in R-GEA projects:

- Guiding municipality through process of completing third-party supply contract
- Managing outreach and logistics of project for whole term

NOTE: Consultant's proposal includes a price that will be charged to third-party supplier as part of supply contract

1 GENERAL INFORMATION AND SUBMISSION REQUIREMENTS

1.1 Pursuant to N.J.S.A. 40A:11-1 et seq., TOWNSHIP NAME hereby issues a Request for Qualifications ("RFP") seeking proposals from qualified consultants or companies to develop a program to aggregate the electrical load of electricity users within the Township, both residential users and, if so determined by the governing body, non-residential users, and, in consultation with the New Jersey Board of Public Utilities ("BPU"), develop, prepare, implement, secure regulatory approval, and perform all services related to administering the NAME OF Aggregation Program as defined by and in compliance with all applicable provisions of N.J.S.A. 48:3-93.1 et seq., as amended, and any other applicable statute or regulation related to this process, including N.J.A.C. 14:4-6.1 et seq., and the policies and procedures of the BPU.

The Township intends to select and enter into an agreement ("the Contract" or "this Agreement") with the most highly qualified Proposer for a term of three (3) years, with an option to renew for an additional two (2) years at the Township's sole discretion.

- 1.3 The Township endeavors to expedite the award and execution of the contract documents. The Contract is anticipated to be awarded within thirty (30) calendar days after the proposals are due. Within five (5) calendar days of the date of the award of contract, the Contract will be executed by the Township and the Proposer to whom the award of contract has been made. Said time deadline may be extended by mutual agreement. Services under the Contract will commence as soon as practical thereafter.
- 1.4 If any changes are made to this RFP, an addendum will be issued. Addenda will be emailed or faxed to all Proposers on record as having received the RFP. If the Township issues any addenda to this RFP, each Proposer shall acknowledge on the Proposal Form the receipt of each addendum by addendum number and date.
- 1.5 After the proposal due date, a Proposer may not change any provision of the proposal in a manner prejudicial to the interests of the Township or fair competition. Minor informalities will be waived or the bidder will be allowed to correct them. If a mistake and the intended proposal are clearly evident on the face of the proposal document, the mistake will be corrected to reflect the intended correct proposal, and the Proposer will be notified in writing; the Proposer may not withdraw the proposal. A Proposer may withdraw a proposal if a mistake is clearly evident on the face of the proposal document, but the intended correct proposal is not similarly evident.

Template RFP for energy consultant included in Sustainable Jersey R-GEA action.



R-GEA Process

Prepare municipality for R-GEA

- Enactment of ordinance creating authorizing R-GEA program
- Outreach to constituents energy consultant presentation at public meeting

Prepare for bid process for third-party supplier

- Interfaces with local utility and state authorities, collects local energy usage data
- Creates bid documents for electrical supply
- Reviews documents with BPU/Rate Counsel
- Manages RFP process to solicit bids
- Awards contract to third-party supplier

Consultant manages opt-out process and ongoing customer relations

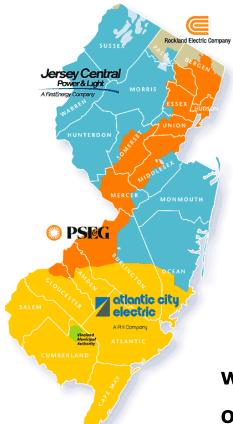
All items on this list are done with support from the consultant.



What can impact the bid pricing?

- Load Profile Electric usage in area, more usage generally means better pricing
- Size of Aggregation Group —
 Larger group can attract better
 offers from suppliers

Multiple municipalities can collaborate on R-GEA



Supply price of electrical utility will impact viability of an R-GEA project



Frequently Asked Questions

How much will it cost to hire the energy consultant?

- Usually, energy consultants are paid as part of the contract with the third-party supplier
- If no contract materializes, no money is paid to energy consultant

What happens if the prices or terms that are offered at the end of the bidding period aren't better than what we have now?

 Municipality is under no obligation to make contract with third-party supplier and end bidding

What happens at the end of aggregation contract?

 Either aggregation will roll over into a new contract, with new 30 day opt-out window; or, supply portion of contract will revert to utility



Frequently Asked Questions

What happens during storms and other power outages?

 Electricity lines will be serviced and maintained by your utility company

What if I would rather stay with the current provider?

 A customer can opt out of program at any time at no cost



Image from www.energy.gov/articles/preparing-power-outage



Frequently Asked Questions

Will being in an R-GEA program impact my ability to participate in programs offered by utility and New Jersey's Clean Energy Program?

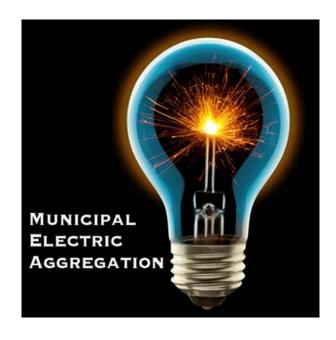
 Participation in an aggregation program has no impact on ability to participate in utility programs such as smart thermostat offers and New Jersey's Clean Energy Programs

I'm on the balanced billing plan, how will the aggregation impact my billing?

- Aggregation should not change your ability to receive an equal payment (a.k.a. budget billing) plan
- Utility will still provide equal payment plan for delivery charges
- Municipality can ask that R-GEA supplier provide an equal payment plan for supply charges

Plainsboro Community Energy Aggregation Program (PCEA)





PCEA Program Contract Highlights

Contract Details Renewable	Contract Price	<u>%</u>	
Awarded to TriEagle Energy, LP Round 1 spans 21 months from Mar. 2017 to Dec. 2018	\$.10401/kwh		Standard
Awarded to Direct Energy Round 2 spans 16 months from Jun. 2019 to Oct. 2020	\$.10977/kwh		42%
Awarded to Energy Harbor Round 3 spans 19 months from Oct. 2020 to May 2022	\$.12250/kwh		43.5%



Princeton Community Renewable Energy (PCRE) - RGEA Sustainable Jersey Webinar July 29, 2020 SUSTAINABLE PRINCETON.

Princeton Community Renewable Energy

Why did we do this?

Who was involved?

How did we go about it?

What's Next?



Why did we do an R-GEA program?



Identified as an action by the Princeton Climate Action Plan's Energy Working Group

OBJECTIVE 2: Increase the supply of low-carbon, affordable, reliable energy

2.1 Pursue community solar and ensure maximum participation of low- to moderate-income households

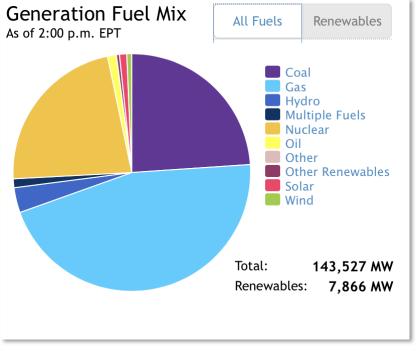


- Pursue Renewable Government Energy Aggregation (R-GEA) at a price lower than the default electricity rate for residents
- Increase adoption of low-carbon, on-site power generation, e.g., rooftop solar, ground source heat pumps
- 2.4 Implement microgrids at Princeton's critical facilities, e.g., police and fire stations



Why did we do an R-GEA program?

We need more renewable energy in our electricity mix.



Snapshot of PJM's Generation Fuel Mix, July 28, 2020



Who was involved?

Princeton convened a subcommittee of the Environmental Commission to lead the process and make a recommendation to Council.

RGEA Ad Hoc Subcommittee of Princeton Environmental Commission (PEC)		
Sophie Glovier	Chair, PEC	
Heidi Fichtenbaum	Vice Chair, PEC	
Anne Soos	PEC	
David Cohen	Council President, CAP Steering Committee	
Jeff Grosser	Asst. Administrator, Municipality of Princeton	
Molly Jones	Executive Director, Sustainable Princeton	
Jenny Ludmer	Community Outreach Manager, Sustainable Princeton	
Christine Symington	Program Director, Sustainable Princeton	



Establish your goals early and refer to them throughout the process.





Princeton's goals were to...

 Provide residents with an option that promotes more renewable energy generation in our area

2. Provide residents with an electricity rate lower than or comparable to the default PSE&G rate



And, also understand how R-GEA accomplishes these goals...

 Provide residents with an option that promotes more renewable energy generation in our area

How?

- It enables the municipality to influence the market for renewable energy
- It signals to the market that there is a preference for renewable energy
- Requires a higher percentage of renewable content that the default from PSE&G
- 2. Provide residents with a lower electricity rate than the default PSE&G rate

How?

leverage to negotiate better rates with competitive suppliers



Princeton's PCRE Product

Product	
PSE&G Basic Generation Service 23.5% Renewable Portfolio Standard (RPS)	PSE&G Basic Generation Service
50% Enhanced Renewable Energy Product 50% RPS plus PJM Class I RECS	Default PCRE product
100% Enhanced Renewable Energy Product 100% RPS plus PJM Class I RECS	PCRE opt-up product



Talked about R-GEA a lot at public events.



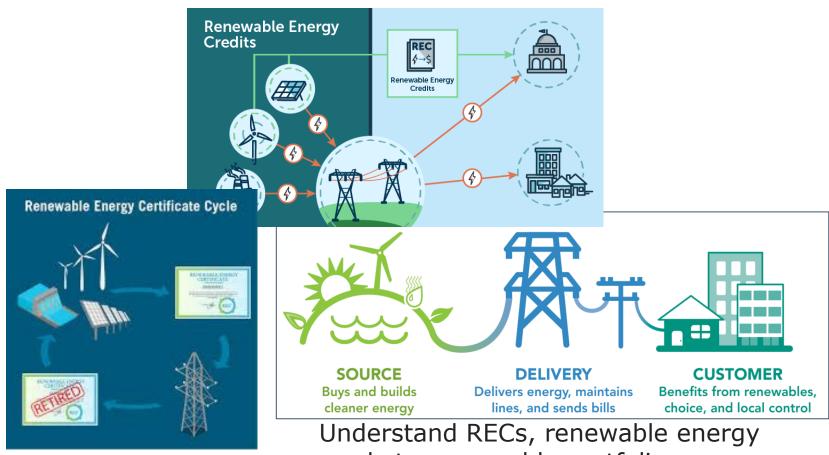
Know your community





How engaged is your community? What are the community's values? What is their capacity for detail?

What makes it "green"?





Understand RECs, renewable energy markets, renewable portfolio standards, the electrical grid, etc.

Required Reading

"In the end, communities must make informed decisions about the quality of the product they choose to purchase in an R-GEA program, recognizing the tradeoffs that exist between cost, quality, the particular culture of a community, and the collective level of engagement of its citizens.

It is important to recognize the limitations of a REC system, and its promise in a state like New Jersey. The direct effects and any secondary and tertiary effects of this system are complex and difficult to predict. On the positive side, a RPS using RECs for compliance that consistently meets or surpasses its goals in a market that sees a declining cost structure is on good footing, politically, to increase their demand for renewable energy. Ultimately, that is the desired outcome of RPS policy – more renewable energy. "

Sustainable Jersey How-To Guide: Renewable Government Energy Aggregation

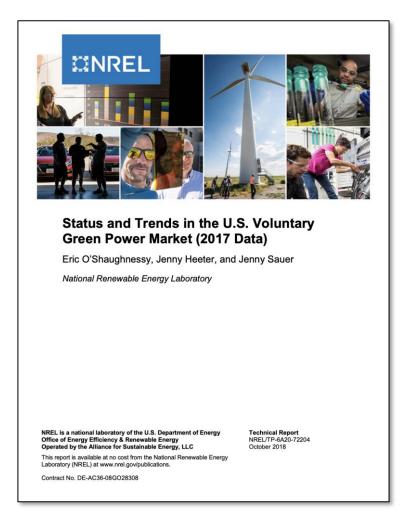


Sustainable Jersey

Sustainability Institute at The College of New Jersey Forcina Hall, 3rd Floor 2000 Pennington Rd. Ewing, NJ 08628-0718



Required Reading





https://www.nrel.gov/analysis/green-power.html

What's Next?

PCRE 2.0

- Virtual PPA's?
- Energy efficiency outreach program funding, e.g. Essex Coalition?

Community Solar

 Application of GEA concepts to community solar?





Annette DePalma Director of Community Development, Maplewood



Sustainable Essex Alliance Aggregation Timeline

November 2017 Lead Agent Passes Resolution Accepting Role of Lead Agent

January 8, 2018 Other Municipalities Pass Resolutions Accepting Lead Agent

January 30, 2018 Lead Agent Issues Request for Proposals (RFP) for Energy Consultant

AFTER THIS POINT ENERGY CONSULTANT ASSISTS WITH EACH STEP

March 6, 2018 Resolution designating Maplewood lead agent of R-GEA Purchasing group and naming energy consultant

March 20, 2018 Lead Agent Passes Ordinance Establishing Creation of Aggregation Program

May-June, 2018 Other Municipalities Pass Ordinances Establishing Creation of Aggregation Program

April 3, 2018 Lead Agent Passes Resolution Authorizing Cooperative Purchasing System

May –July, 2018 Other municipalities pass Resolution Joining Cooperative Purchasing System

March 2019 Third - Party Supply Contract signed June 2019 - December 2020 term

Annette DePalma Director of Community Development, Maplewood



Organization of Aggregation Group

Lead Agent – Maplewood – fills a management role

Leadership decisions are made with each municipality having one vote each

Bid Day Process

Bids received were sent to municipal leaders upon receipt

Conference call with consultant and leaders of all municipalities

Acceptable bid parameters were agreed upon in advance, but each municipality indicated their acceptance of the winning proposal on bid day

THE SUSTAINABLE JERSEY HUB FOR ESSEX COUNTY

"COMMUNITY CHOICE AGGREGATION"

CHEAPER, CLEANER ELECTRICITY

JULY 29, 2020

GRAY RUSSELL

SUSTAINABILITY OFFICER, MONTCLAIR

In 2017, representatives from six (6) municipal Green Teams in Essex County agreed to initiate a Community Choice Aggregation Program (R-GEA) for our communities.

Maplewood South Orange
Millburn Montclair
Glen Ridge Verona

Renewable-GEA programs are an efficient means of promoting renewable energy content in a community's energy supply.

- All residential customers (who don't have a third-party contract or solar panels) will be automatically enrolled in the R-GEA, which provides more renewable content than the 20% RPS.
- The same 'bulk-purchasing' power which allows a typical GEA to obtain favorable pricing helps to make renewable energy a more attractive option from a consumer's standpoint.
- The purchase of renewable content sends a market signal to builders of renewable energy facilities in our region that demand exists here for an increased supply of their product.

We interviewed several experienced

Energy Services consulting firms, selected our best choice, and with their guidance introduced our proposal to our respective municipal governments.

*Note: with energy aggregation programs, Energy Services consultants are not paid by the aggregating local governments; their fees are included in the bid price. No tax \$\$ are spent for their services.

Based on our consultant's advice, we calculated that a Request for Proposals from 3rd party suppliers for an electricity supply consisting of 40% renewable energy sources could still provide some \$\$ savings, due to our aggregated purchasing power.

Montclair's Legislative and Contractual Timeline: 2018 - '19

- February 6, 2018: <u>Resolution R-18-042</u>, adopted by Council, "<u>Authorizing the Township's Participation</u> in the Sustainable Essex Alliance of Municipalities"
- June 12, 2018: Ordinance 0-18-026, adopted by Council, authorizing the establishment of a Government Energy Aggregation Program for the Township
- July 24, 2018: Resolution R-18-188, adopted by Council, authorizes the Township to participate in the Cooperative Purchasing System named "The Sustainable Essex Alliance Energy Procurement Cooperative", and, designating Maplewood as Lead Agency to act on our behalf, for "Purchasing Electric Generation Services for Montclair Residents via a Government Energy Aggregation Program"
- August 28, 2018: Resolution R-18-209, adopted by Council, Authorizes Township to "Enter into an Electric Distribution Aggregation Agreement with PSE&G in Connection with the Township's Government Energy Aggregation
 Program"
- October 29, 2018: <u>Electric Distribution Company Aggregation Agreement</u> executed between Public Service Electric & Gas and the Township of Montclair
- March 4, 2019: Cooperative Pricing System Agreement executed between the Township of Maplewood and the Township of Montclair, to participate in Sustainable Essex Alliance Energy Procurement Cooperative ("SEAEPC")

Montclair's Legislative and Contractual Timeline: 2018 - '19

After the RFP process was completed,

in March, 2019, the bids were received and opened.

The winning bidder provides us with

40% PJM-generated, Class I Renewable Power,

at a 10% savings compared to PSE&G's supply price!

However, the utility's supply rate for one of the 6 towns – Millburn – meant their savings were less, so they pulled out of the SEA Energy Procurement Cooperative.

March, 2019: Contract signed

March - May: Outreach and Publicity

June, 2019: new contract terms began

July, 2019: first savings reflected on utility bills

Our contract runs for 17 months, thru December, 2020

Outreach and Publicity:

Media (local newspapers, TV-34, social media)

Direct Mail to all residents from the Township, and to all ratepayers from PSE&G and TPS;

Town Hall Informational Public Meeting;

Hundreds of Phone and Email Responses!

Our electricity is still delivered by PSE&G, we still pay PSE&G, if the lights go out we call PSE&G, the electricity doesn't change – but, that electricity comes from more renewable sources, and... WE PAY a LITTLE LESS!

Over the life of the 17-month contract, the average home will save about \$125. Of Montclair's 14,200 residential accounts, about 30% were ineligible or opted out, leaving just under 10,000 participating homes, with cumulative savings of almost \$1,250,000?

Community Choice Aggregation

Energy Efficiency Outreach & Education Program

The Sustainable Essex Alliance included a small fee per kWh in the RFP for third party suppliers.

This funds collected will be used to support residential energy efficiency in the five participating towns.

Sustainable Essex Alliance Community Choice Aggregation

We have taken a powerful step to <u>act now</u> on Climate Change.
Together, we were able to choose CHEAPER, CLEANER ENERGY for our five Essex communities!

THE SUSTAINABLE JERSEY HUB FOR ESSEX COUNTY

THANK YOU, VERY MUCH!

QUESTIONS?...

GRAY RUSSELL

SUSTAINABILITY OFFICER

TOWNSHIP OF MONTCLAIR

DEPT. OF HEALTH & HUMAN SERVICES

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BRONZE







Coming up at Sustainable Jersey

EDF Fellows' 'Getting Started' Guide To Energy Actions Webinar

Aug 05, 2020, 1:00 PM to 2:30 PM

Local Public Information & Engagement (PIE) Planning Opportunity

Applications are due August 9, 2020

Sustainable Jersey is offering free Public Information & Engagement (PIE) Technology Assessments that will provide four municipalities (population sizes 2,000 to 60,000) with Local Public Information & Engagement Action Plans.



Contact Information

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