

A decorative graphic on the left side of the slide, consisting of white and light blue lines and circles that resemble a circuit board or a network diagram, extending from the top to the bottom of the frame.

**NJDEP BUREAU OF SUSTAINABILITY**

**JANUARY 6, 2021**

# **LOCAL INITIATIVES**

**FOR CLEAN ENERGY**

**COMMUNITY CHOICE AGGREGATION, ELECTRIFYING  
TRANSPORTATION, AND A TOWN CENTER MICROGRID**

**GRAY RUSSELL, SUSTAINABILITY OFFICER, MONTCLAIR**

The background is a dark teal gradient. In the corners, there are white line-art patterns resembling circuit boards or neural networks, with lines connecting to small circles.

# THE SUSTAINABLE ESSEX ALLIANCE

## **Community Choice Energy Aggregation**

*“Cheaper, Cleaner Electricity”*

# SUSTAINABLE ESSEX ALLIANCE

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

Montclair

South Orange

Glen Ridge

Millburn

Verona

# WHAT IS G.E.A.?

**G**overnment **E**nergy **A**ggregation

is a program that allows a municipality

to conduct a “bulk purchase”

on behalf of its residents

of the energy supply delivered by their utility  
at a price lower than the utility’s average price.

*The municipality forms a GEA program under NJ’s GEA  
rules by passing an ordinance.*

## SUSTAINABLE ESSEX ALLIANCE

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

All residential customers (unless they already have a third-party contract, or solar panels) will be automatically enrolled in the R-GEA, which provides more renewable content than

**N.J.'s 20% R.P.S.**

# SUSTAINABLE ESSEX ALLIANCE

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.**

## SUSTAINABLE ESSEX ALLIANCE

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



# SUSTAINABLE ESSEX ALLIANCE

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 would provide us with

**40% PJM-generated, Class I Renewable Power,**  
at a **10% Savings** compared to PSE&G's supply price!



## SUSTAINABLE ESSEX ALLIANCE

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.

# SUSTAINABLE ESSEX ALLIANCE

**March, 2019:** Contract signed

**March - May:** Outreach and Publicity

**June, 2019:** new contract terms began

**July:** first savings reflected on utility bills

**Our contract ran for 17 months,  
thru December, 2020**

# SUSTAINABLE ESSEX ALLIANCE

We have now signed a second contract  
with a different supplier  
which will run for 18 months,  
from March 2021 until August, 2022 !

# SUSTAINABLE ESSEX ALLIANCE

## 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!

## SUSTAINABLE ESSEX ALLIANCE

Our electricity is still delivered by  
PSE&G, we still pay PSE&G,  
if the power goes out we call PSE&G;  
the electricity doesn't change –  
*but*, that electricity comes from  
more *renewable* sources, and...

***WE PAY a LITTLE LE\$\$!***

## SUSTAINABLE ESSEX ALLIANCE

Over the life of the 17-month contract, the average home saved about **\$100**.

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 **\$1,000,000!**

# Community Choice Aggregation

## Energy Efficiency Outreach & Education Programs

Connecting residents to home E.E. programs when available from NJBPU's Office of Clean Energy

- to save money on utility bills;
- to reduce the waste of energy; and,
- to make homes healthier and more comfortable, especially for low- and moderate-income families.



# Community Choice Aggregation



## Energy Efficiency Outreach and Education Programs

Home Performance with ENERGY STAR is your "whole-house" solution for a more energy efficient, comfortable, healthier and safer home.

Find out where the money is escaping from your house and learn how to put 5%-30% of your energy bill back in your pocket!

# Community Choice Aggregation

## Energy Efficiency Outreach & Education Programs



The New Jersey **Comfort Partners Program** is a free **energy saving and energy education program** for qualified low-income customers.

**Comfort Partners has helped over 114,000 families since it was launched in 2001!**

A hand holding a globe with renewable energy symbols. The globe shows a house with solar panels, wind turbines, and trees. The background is a blue sky with clouds and a bright sun.

# Sustainable Essex Alliance's Community Choice Aggregation

We have taken a powerful step  
to act now on Climate Change.  
Together, we were able to choose  
**CHEAPER, CLEANER ENERGY**  
for our nearby Essex communities!



**A SUSTAINABLE ENERGY COMMUNITY**

*ELECTRIC*

*VEHICLES*

*January 6, 2021*

**Gray Russell  
Sustainability Officer  
Township of Montclair**

AND NOW: THE *ELECTRIC*  
REVOLUTION...

A decade ago, in 2010 Montclair was honored  
to have been awarded a  
**Sustainable Jersey/Walmart grant of \$25,000**  
enabling us to be the first town in N.J. to install

**Public Charging Stations**

for

*Electric Vehicles*



NES SPIRITS

toro sust



TOWNSHIP OF MONTCLAIR

Montclair  
PARKING AUTHORITY

# PUBLIC CHARGING STATIONS FOR ELECTRIC VEHICLES

Less Gasoline = Less Emissions

"GET CHARGED UP IN MONTCLAIR"



Walmart  
Save More. Spend Smarter.

PAYSTAT  
←  
REMEMBER  
SPACE NUM

31





ChargePoint

2

1

PAYSTATION



REMEMBER YOUR  
SPACE NUMBER

ChargePoint  
Network





PAYSTAT

REMEMBER  
SPACE BOOK

PLUG-IN HYBRID

# GOOD SIGNAGE MEANS FRIENDLY DRIVERS

Unauthorized vehicles not  
connected for electric charging  
purposes may be towed away  
at owner's expense.

Towed vehicles may be  
reclaimed at designated  
towing facility or by calling  
Montclair Police Department.  
(973)744-1234

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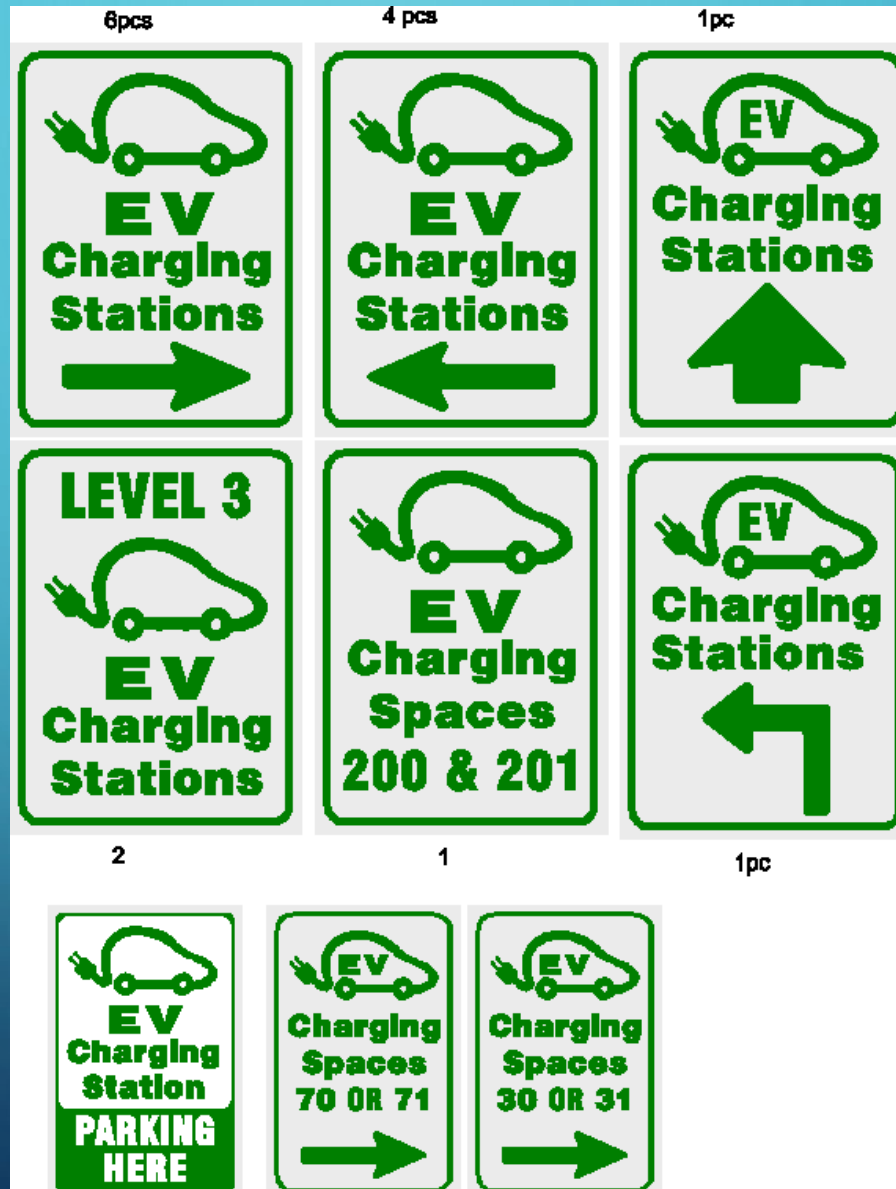


ELECTRIC  
VEHICLE  
PARKING

ONLY WHILE  
CHARGING



# SIGNAGE DESIGN: LOCATORS & SPACES





# LOCAL BUSINESSES INSTALL CHARGERS





# “RIDE & DRIVE” @ DRIVE ELECTRIC WEEK!



# “RIDE & DRIVE” @ DRIVE ELECTRIC WEEK!





# 2020: PUBLIC CHARGING STATIONS IN MONTCLAIR

U.S. Department of Energy's Alternative Fuels Data Center EV Station Locator:

**6** owned by our *Municipal Parking Authority*,

**7** owned by local businesses, and

**2** at Montclair State University

Current Total Count:

**15 public charging stations available in Montclair.**

# NJTPA/Montclair Alt. Fuel Vehicle Readiness Plan



Montclair Township



Alternative Fuel Vehicle

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## Readiness Plan

December 2017

**Montclair's Alternative Fuel Vehicle Readiness Plan** outlines actions which the Township can take to reduce and resolve barriers to AFV usage.

# NJTPA/MONTCLAIR ALT. FUEL VEHICLE READINESS PLAN

It includes **28** recommendations  
across **5** action areas for  
community leaders & other stake-holders  
interested in expanding the use of  
**plug-in electric vehicles (PEVs)** and  
**compressed nat gas vehicles (CNGVs).**

*"It Pays to Plug In!"*


# Electrifying How We Move





# Montclair Municipal Fleet's First Pluggable Vehicle: **2020 Prius Prime**



A decorative graphic on the left side of the slide, consisting of white and light blue lines representing circuit traces and nodes on a dark blue background.

**NJ BOARD OF PUBLIC UTILITY'S  
OFFICE OF CLEAN ENERGY  
IS HELPING MONTCLAIR  
EXPLORE OPTIONS FOR A  
TOWN CENTER  
DISTRIBUTED ENERGY RESOURCE  
MICROGRID**



## N.J. BOARD OF PUBLIC UTILITIES' MICROGRID PILOT PROGRAM

**Microgrid: a local energy grid**  
with control capability,  
meaning it can **disconnect**  
from the regional power grid  
and **continue to operate** using  
its own sources of generation.



# A Microgrid for Resiliency

Four good reasons for community microgrids

1



Electric reliability

2



A strong grid

3



Economic  
development

4



Efficient and green  
energy supply



# N.J. BOARD OF PUBLIC UTILITIES' MICROGRID PILOT PROGRAM

BPU initiated the Microgrid program due to:

- 1) multiple weather-induced, longer-term **power outages** throughout NJ;
- 2) concern about **grid security** due to human-caused disruptions, such as:
  - a) **Cyber-Hacking; and/or,**
  - b) **Terrorism**

# N.J. BOARD OF PUBLIC UTILITIES' OFFICE OF CLEAN ENERGY MICROGRID PILOT PROGRAM

**Microgrids** can be developed in NJ communities with the ability to keep critical facilities – such as hospitals, fire stations, mass transit, and buildings for sheltering residents – powered up, running, open and operational, independent of the regional grid, **during *emergencies* or *grid disruptions*.**

# MONTCLAIR MICROGRID

In 2018, Montclair was awarded a grant of \$142,000 from the NJ BPU's O.C.E. for a Town Center Distributed Energy Resource Microgrid Feasibility Study, to determine whether Montclair could be an appropriate location for a Microgrid to reduce energy use and costs, and to provide uninterrupted power for critical facilities during outages or disruption.

# MONTCLAIR MICROGRID

Our proposal consists of 8 Facilities

interconnected to PSE&G thru

**Mountainside Hospital,**

with **5** sources of power generation,

including *CHP, solar PV, & battery storage,*

totaling 4.275 mW.



# NJ BPU'S MICROGRID GRANT, MONTCLAIR, 2017-'20



**Critical  
Infrastructure  
for *Security*  
& *Resilience***





# MONTCLAIR MICROGRID LAYOUT



# MONTCLAIR MICROGRID: MAJOR ASSUMPTIONS

- **All facilities** other than the hospital will **disconnect from PSE&G;**
- **PSE&G interconnects thru the hospital;** high-efficiency energy provided by the CHP microgrid, plus power from our regional grid, generated from the hospital to all of the connected facilities;
- All facilities on the microgrid get resilient and efficiently-generated electricity, supplemented by **solar PV and battery storage...**

*...while ensuring uninterrupted power during emergencies or disruptions.*

**CO2 Reduction, EE, Renewables, Storage, Resilience**



## NEXT STEPS / ACTIONS

### **Latest Microgrid Update...**

BPU is currently reviewing our recent application for their

### **Phase II Design Plan Incentives;**

this will provide funding for  
**detailed engineering & design plans**  
with grants of up to \$1 million offered.

**NJDEP BUREAU OF SUSTAINABILITY**

# **MUNICIPAL *CLEAN ENERGY***

***COMMUNITY CHOICE AGGREGATION, ELECTRIFYING  
TRANSPORTATION, AND A TOWN CENTER MICROGRID***

**THANK YOU, VERY MUCH!**

**QUESTIONS?...**

**GRAY RUSSELL**

**SUSTAINABILITY OFFICER, TOWNSHIP OF MONTCLAIR**

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